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August 28, 2017

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

Subject: May 2017 Semi-Annual Potable Well Monitoring Letter Report
Former Town of Newton Gravel Pit
BRRTS No. 02-36-000268
AECOM Project No: 60135471(82518)

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 Figure1). The report provides the results from the May 2017 sampling event.

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

BACKGROUND INFORMATION

Regular monitoring has been ongoing since November 2013, when volatile organic compounds (VOCs) were discovered in private potable wells near the Former Town of Newton Gravel Pit. The most recent sampling was conducted in accordance with the Wisconsin Department of Natural Resources (WDNR) approved Five Year Potable Well Monitoring Work Plan. The Work Plan grouped the potable wells into the following categories:

- Target Zone Wells – wells with detectable contaminants of concern (COCs).
- Target Zone Sentinel Wells – wells within the Target Zone and do not have detectable COCs.
- Sentinel Zone Wells – wells outside and adjacent to the Target Zone that do not have detectable 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 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.

SAMPLING METHODOLOGY

The May 2017 sampling also includes reporting of monitoring conducted since the October 2016 event. In total, 24 water samples, excluding quality control samples, were obtained from 24 wells. Details of the monitoring event are as follows.

On February 23, 2017 the third sampling event on the replacement well at 3504 CTH CR was completed.

February 23, 2017 Target Zone Well Sampling Address
3504 CTH CR (replacement)

In May 2017, a total of 23 wells (a total of 26 samples with quality control sampling) were collected from the target zone and sentinel zone wells. Additionally, the first sampling event on the replacement wells at 4005 Thunder Ridge Road and 4010 Thunder Ridge Road were completed.

May 30 and 31, 2017 Sentinel and Target Zone Wells Sampling Addresses	
3817 Viebahn Street	4005 Thunder Ridge Road (replacement)
3327 Hecker Road	4010 Thunder Ridge Road (replacement)
3461 (3417) Hecker Road	3911 Blackhawk Court
3627 Hecker Road	3921 Blackhawk Court
3702 Hecker Road	3710 Silver Creek Road
3618 CTH CR	3780 Silver Creek Road
3904 CTH CR	3802 Silver Creek Road
4125 CTH CR	4159 Silver Creek Road
4101 Thunder Ridge Road	4220 Silver Creek Road
4027 Thunder Ridge Road	4314 Silver Creek Road
4111 Thunder Ridge Road	4315 Silver Creek Road
	3027 Orchard Lane

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, with chain of custody, to the laboratory.

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

MONITORING RESULTS

The results for the May 2017 sampling events are discussed below. During this period AECOM obtained a total of 24 water samples (not including quality control samples) from 24 wells.

A summary of the sampled wells with detected laboratory analytical results is presented on Table 1 and on Figure 2. Table 2 provides a summary of the analytical results for all wells sampled. The laboratory analytical reports are provided in Attachment A.

Laboratory Analytical Results

The laboratory analytical data indicates that contaminant compounds are present in some of the potable well water samples.

The concentration of the 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:

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

Wells with NR 140 COC ES Exceedances:
There were no wells that had an ES exceedance for vinyl chloride or cis-1,2-dichloroethene (cis-1,2-dce).

ES Exceedances of Vinyl Chloride or cis-1,2-dce
No wells with ES exceedances

Wells with NR 140 COC PAL Exceedances:
There were no wells that had a PAL exceedance for vinyl chloride or cis-1,2-dce.

PAL Exceedances of Vinyl Chloride or cis-1,2-dce
No wells with PAL exceedances

Detected COCs with No Regulatory Exceedances:
There were a total of 11 potable wells that only had a single COC (cis-1,2-dce) below regulatory (PAL) limits.

Cis-1,2-dichloroethene Detects	
3817 Viebahn Street	4101 Thunder Ridge Road
3461 (3417) Hecker Road	4027 Thunder Ridge Road
3327 Hecker Road	4111 Thunder Ridge Road
3702 Hecker Road	3921 Blackhawk Court
3618 CTH CR	4159 Silver Creek Road
	3027 Orchard Lane

Additionally, the analytical results for the potable well at 3417 Hecker Road indicated chlorobenzene (i.e. monochlorobenzene) at 0.32 ug/l. The NR 140 PAL is 20 ug/l and the ES is 100 ug/l. Chlorobenzene is typically used as a solvent for some pesticide formulations and as a degreaser. This compound is not a known COC for the Newton Pit project. The chlorobenzene result has been noted on Table 1, but not included on Figure 2, since it is not a COC for the project site.

A summary of the sampled wells with detectable COC laboratory results is presented on Table 1 and on Figure 2. Table 2 provides a summary of the analytical results for all sampled wells. The laboratory analytical reports are provided in Attachment A.

OBSERVED CHANGES SINCE LAST MONITORING EVENT

Since the October 2016 sampling event two new replacement wells have been installed and sampled. There are currently a total of eleven replacement potable wells. The newest wells are located at:

- 4005 Thunder Ridge Road
- 4010 Thunder Ridge Road

The following changes were noted in the analytical results since the October 2016 sampling event:

- The following well had a change in cis-1,2-dce from a detect above the laboratory method detection limit (MDL) but below the PAL to a non-detect with continued non-detect of vinyl chloride. The well has historically had cis-1,2-dce detects.
    - 3911 Black Hawk Court

- The well at 3417 Hecker Road had a detect in chlorobenzene below the NR 140 PAL.

UPDATES TO POTABLE WELL MONITORING WORK PLAN

The WDNR has approved a Five Year Potable Well Monitoring Work Plan dated May 8, 2017. Based on the May 2017 sampling results, the sampling schedule in the Work Plan for the October 2017 sampling event does not require an update. The potable well monitoring schedule from the Work Plan is presented on Table 3, attached.

SUMMARY

The following is a summary of the May 2017 potable well monitoring event.

Analytical results from 11 potable well water samples indicate a single contaminant of concern (cis-1,2-dce) below regulatory (PAL) limits. One well, 3417 Hecker Road, had an additional detect of chlorobenzene below the PAL.

Two replacement potable wells have no VOC detects above laboratory MDLs.

All other monitored wells had no VOC detects above laboratory MDLs.

The next semi-annual potable well monitoring event is scheduled for October 2017. The sampling will be conducted in accordance with the Five Year Potable Well Monitoring Work Plan dated May 8, 2017.

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

Yours sincerely,
AECOM Technical Services, Inc.

Sarah Day
Project Scientist

David Henderson
Senior Project Manager

Cc: Kathleen M. McDaniel, City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc
JaNelle Merry, Water Supply Specialist, WDNR

Attachments: Tables, Figures, Attachment A: Laboratory Reports

AECOM

Tables:

Table 1, Summary of Contaminates Detected in Potable Wells
Table 2, Summary of Contaminates Analyzed in Potable Wells
(Table 2 provided only on electric (CD) copy of report)
Table 3, Summary of Five Year Potable Well Sampling Plan

Table 1
SUMMARY OF CONTAMINANTS DETECTED IN POTABLE WELLS

TABLE 1

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

			3303 Hecker Rd.													
			Original Potable Well								Replacement Potable Well					
			10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16	8/8/16	9/26/16	10/24/16			11/8/16
Analyte	**ES[1]**	**PAL[2]**	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	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
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	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
1,1-Dichloroethene	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
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	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
trans-1,2-Dichloroethene	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
Toluene	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
Vinyl Chloride	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
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3327 Hecker Rd.									
			10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16	10/5/16	5/30/17
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.51	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.46	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.87	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 1.1	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	< 0.65	< 0.46
cis-1,2-Dichloroethene	70	7	**11**	**11.6**	6.4	6.9	5.6	4.3	4.2	3.2	3.3	2.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3461(3417) Hecker Rd.											
			10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)	10/6/16	10/6/16 (DUP)	5/31/17
			Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink	Inside Sink
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	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	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	0.32 J
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	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	< 0.38
1,1-Dichloroethene	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	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	70	7	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74	1.23 J	1.51	0.55 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)														
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3515 Hecker Rd.										
			Original Potable Well						Replacement Potable Well				
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15	10/5/16
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	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
RCRA Metals (mg/L)													
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00034 J	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	0.00006 J	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3518 Hecker Rd.													
			Original Potable Well			Replacement Potable Well										
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15	10/6/16
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	**510**	**510**	**530**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**102**	**86**	**92**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

			3609 Hecker Rd.												
			Original Potable Well								Replacement Potable Well				
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	5/28/14(DUP)	7/11/14	8/25/16	8/25/14(DUP)	9/29/14	11/4/14	2/24/15	10/13/15	10/5/16
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	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
Chlorobenzene	NL	NL	< 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
Dichlorodifluoromethane	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
1,2-Dichloroethane	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
1,1-Dichloroethene	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
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	0.39 J	< 0.35	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	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
Vinyl Chloride	0.2	0.02	**1.0**	**1.09**	**1.02**	NA	**7.40**	**7.60**	**8.60**	**4.60**	**5.20**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	0.00032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00056 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	< 0.000049	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

Analyte	ES[1]	PAL[2]	3702 Hecker Rd.									
			10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/2015 (DUP)	3/31/16	10/11/16	5/30/17
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	4159 Silver Creek Rd											
			12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16	10/10/16	5/30/17
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	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
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	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	< 0.38
1,1-Dichloroethene	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	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	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
trans-1,2-Dichloroethene	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
Toluene	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
Vinyl Chloride	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
RCRA Metals (mg/L)														
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

			2717 CTH CR(4141 Viebahn St.)								
			Original Potable Well							Non-Potable Well	
			8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15	City Water Provided December 2016	3/31/16	10/6/16
Analyte	ES[1]	PAL[2]	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Garage Faucet	Garage Faucet
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46		< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87		< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48		< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA		NA	NA
cis-1,2-Dichloroethene	70	7	1.4	1.31	1.44	1.3	1.26 J	1.72		< 0.45	1.53
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.44	< 0.44
Vinyl Chloride	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**
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA		NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA		NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA		NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA		NA	NA

TABLE 1

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

			2734(2804) CTH CR								2916 CTH CR							
			Original Potable Well								Original Potable Well							
			6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15		2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15	
Analyte	ES[1]	PAL[2]	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2016	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2016
Volatile Organic Compounds (VOCs) (µg/L):																			
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87		< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48		< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	70	7	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J		0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	1.02 J	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**	**0.45 J**		**0.18 J**	< 0.18	< 0.18	**0.28 J**	**0.37 J**	< 0.17	**0.18 J**	**0.26 J**	
RCRA Metals (mg/L)																			
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 1

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

Analyte	ES[1]	PAL[2]	2917 CTH CR					Well Abandoned, City Water Provided December 2016	3023 CTH CR							
			Original Potable Well						Original Potable Well			Replacement Potable Well				
			2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)		2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15	10/5/16
			Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot		Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87		< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48		< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	1.6	1.41	1.67		2.84	2.87	2.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54		< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44		< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.43 J**	**0.37 J**	**0.37 J**		**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

			3120 CTH CR										
			Original Potable Well						Replacement Potable Well				
			1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15	10/6/16
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	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
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	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
1,1-Dichloroethene	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
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	**0.60**	**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
RCRA Metals (mg/L)													
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3403 CTH CR								
			Original Potable Well				Replacement Potable Well				
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15	10/5/16
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
Vinyl Chloride	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
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

			3504 CTH CR																
			Original Potable Well														Replacement Potable Well		
			12/5/13	1/6/14	1/6/2014 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/2014 (DUP)	2/23/15	10/14/15	3/31/16	3/31/2016 (DUP)	10/11/16	10/24/16	11/8/16	2/23/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	70	7	1.28	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	0.76 J	0.91 J	1.17 J	< 0.45	< 0.45	< 0.41
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 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	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)																				
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3618 CTH CR								
			1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16	10/6/16	5/30/17
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

Analyte	ES[1]	PAL[2]	4002 Thunder Ridge Rd.										
			Original Potable Well							Replacement Potable Well			
			1/3/14	8/25/14	10/13/15	10/13/2015 (DUP)	10/27/15	3/31/16	3/31/16 (DUP)	5/23/16	6/2/16	6/23/16	10/5/16
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	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
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	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
1,1-Dichloroethene	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
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	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
RCRA Metals (mg/L)													
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	4005 Thunder Ridge Rd.									
			Original Potable Well									Replacement Potable Well
			5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16	10/10/16	10/24/16	11/8/16	5/30/16
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	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	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	**0.29 J**	< 0.17	< 0.17	< 0.17
RCRA Metals (mg/L)												
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

			4010 Thunder Ridge Rd.								4027 Thunder Ridge Rd.									
										Replacement Potable Well										
			5/28/14	8/26/14	2/24/15	10/20/15	3/31/16	10/7/16	10/24/16	5/31/16	5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16	10/6/16	10/6/16 (DUP)	5/30/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Pressure Tank	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
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.45	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	70	7	1.37	1.18 J	1.43	1.27 J	1.47 J	1.27 J	1.42	< 0.41	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J	0.77 J	0.96 J	0.87 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	**0.27 J**	**0.20 J**	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)																				
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

			4101 Thunder Ridge Rd.							4111 Thunder Ridge Rd.						
			8/26/14	11/17/14	3/11/15	10/14/15	3/30/16	11/8/16	5/30/17	8/25/14	11/17/14	2/23/15	10/13/15	3/30/16	10/10/16	5/30/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	< 0.46	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	70	7	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J	1.02 J	0.73 J	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45	0.56 J	0.56 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3617(3621) Viebahn St.							3701 Viebahn St.							
										Original Potable Well							
			11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16		10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	10/14/15	10/14/2015 (DUP)	
			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	
Volatile Organic Compounds (VOCs) (µg/L):									Well Abandoned, City Water Provided								Well Abandoned, City Water Provided December 2016
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44		< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46		< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87		< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48		< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	70	7	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J		1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54		< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44		< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**	**0.23 J**	< 0.17		**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**	**0.34 J**	**0.37 J**	
RCRA Metals (mg/L)																	
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	

TABLE 1

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

Analyte	ES[1]	PAL[2]	3815 Viebahn St.						3817 Viebahn St.							4025 Viebahn St.				
			Original Potable Well					Well Abandoned, City Water Provided December 2016								Original Potable Well				Well Abandoned, City Water Provided December 2016
			11/7/14	11/19/14	2/23/15	10/13/15	10/13/15 (DUP)		10/29/14	11/7/14	2/24/15	10/20/15	3/31/16	10/6/16	5/30/17	10/29/14	11/7/14	2/24/15	10/13/15	
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44		< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46		< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.21	< 0.24	< 0.24	< 0.46	< 0.46	
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87		< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34	< 0.44	< 0.44	< 0.87	< 0.87	
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48		< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38	< 0.41	< 0.41	< 0.54	< 0.48	
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42	< 0.4	< 0.4	< 0.65	< 0.65	
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	< 0.46	NA	NA	NA	NA	
cis-1,2-Dichloroethene	70	7	0.74 J	0.94 J	0.90 J	1 J	1.12 J		0.4 J	< 0.38	< 0.45	0.49 J	< 0.45	0.47 J	0.50 J	1.38	1.46	1.11 J	1.85	
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54		< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44		< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	0.95 J	< 0.69	< 0.44	< 0.44	
Vinyl Chloride	0.2	0.02	**0.33 J**	**0.31 J**	**0.25 J**	**0.2 J**	**0.32 J**		< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	**0.34 J**	**0.31 J**	**0.32 J**	**0.44 J**	
RCRA Metals (mg/L)																				
Arsenic	0.01	0.001	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

TABLE 1

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

			4101 Viebahn St.					3027 Orchard Ln.								
			Original Potable Well													
			10/29/14	11/7/15	2/24/15	10/14/15		2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16	10/6/16	5/31/17
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2016	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	< 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
Chlorobenzene	NL	NL	< 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
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87		< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48		< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65		< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	70	7	1.48	1.13 J	1.24 J	1.59 J		0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45	0.46 J	0.54 J
trans-1,2-Dichloroethene	100	20	< 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
Toluene	800	160	< 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
Vinyl Chloride	0.2	0.02	**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
RCRA Metals (mg/L)																
Arsenic	0.01	0.001	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1

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

Analyte	ES[1]	PAL[2]	3911 Black Hawk Ct.			3921 Black Hawk Ct.								
			7/8/15	10/6/16	5/31/17	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16	10/5/16	5/30/17
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	5	0.5	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Chlorobenzene	NL	NL	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Dichlorodifluoromethane	1000	200	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.34
1,2-Dichloroethane	5	0.5	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.38
1,1-Dichloroethene	7	0.7	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.42
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.46
cis-1,2-Dichloroethene	70	7	< 0.45	0.59 J	< 0.41	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
trans-1,2-Dichloroethene	100	20	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
Toluene	800	160	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
Vinyl Chloride	0.2	0.02	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
RCRA Metals (mg/L)														
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

NOTES:

(1) Enforcement Standard from NR140, January 2012.

(2) Preventive Action Limit from NR140, January 2012.

NL - ES or PAL not listed in NR140.

NA - Not analyzed.
ND - Not detected.
NM - Not measured.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

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

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

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

			3114 Hecker Rd.			3121 Hecker Rd.				3303 Hecker Rd.													
										Original Potable Well								Replacement Potable Well					
			10/22/13	11/8/13	5/28/14	10/22/13	11/7/13	5/28/14	10/14/15	10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16	8/8/16	9/26/16	10/24/16			11/8/16
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
Volatile Organic Compounds (VOCs) (µg/L):																				Vial #1	Vial #2	Vial #3	
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 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
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.8	< 1.0	2.6 J	< 1.0
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 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
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 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
Chloromethane	3	0.3	**1.36 J**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 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
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 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
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 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
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 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	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 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
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 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
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 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
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 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
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 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
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 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
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 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-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 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
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2

TABLE 2

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

			3114 Hecker Rd.			3121 Hecker Rd.				3303 Hecker Rd.														
										Original Potable Well								Replacement Potable Well					
Analyte	ES[1]	PAL[2]	10/22/13	11/8/13	5/28/14	10/22/13	11/7/13	5/28/14	10/14/15	10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/13/15	3/30/16	8/8/16	9/26/16	10/24/16			11/8/16
			Outside Spigot	Outside Spigot	Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement
RCRA Metals (mg/L)																							
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																							
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																							
pH (IU)	--	--	7.84	8.22	7.85	6.01	7.55	7.55	7.37	8.13	7.32	7.32	7.32	7.85	8.04	7.43	NM	NM	NM	NM	NM	NM	NM
Conductivity (uS)	--	--	617	443	502	877	635	689	785	585	538	538	538	587	618	531	NM	NM	NM	NM	NM	NM	NM
Temperature (°C)	--	--	10.54	10.09	10.5	9.72	10.25	10.4	11.73	9.69	10.31	10.31	10.31	8.83	7.31	11.19	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	4.11	150.31	1.3	4.22	8.42	2.2	2.34	4.22	2.41	2.41	2.41	6.84	7.1	6.69	NM	NM	NM	NM	NM	NM	NM
Redox Potential (mV)	--	--	20.2	90.5	70	90.1	95.7	38	-65.8	62	76.4	76.4	76.4	9.2	-131.9	-58.2	NM	NM	NM	NM	NM	NM	NM

TABLE 2

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

			3320 Hecker Rd.				3327 Hecker Rd.										3461(3417) Hecker Rd.										
Analyte	ES[1]	PAL[2]	10/22/13	11/7/13	5/28/14	3/30/16	10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16	10/5/16	5/30/17	10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)	10/6/16	10/6/16 (DUP)	5/31/17
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	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
Volatile Organic Compounds (VOCs) (µg/L):																											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	0.32 J
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.45	**11**	**11.6**	6.4	6.9	5.6	4.3	4.2	3.2	3.3	2.38	2.58	2.15	2.12	1.79	1.49	1.59	1.6	1.66	1.74	1.23 J	1.51	0.55 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56

TABLE 2

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

			3320 Hecker Rd.				3327 Hecker Rd.										3461(3417) Hecker Rd.											
			10/22/13	11/7/13	5/28/14	3/30/16	10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/14/15	3/31/16	10/5/16	5/30/17	10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15	10/13/15	3/30/16	3/30/16 (DUP)	10/6/16	10/6/16 (DUP)	5/31/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink	Outside Spigot	Kitchen Sink	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
RCRA Metals (mg/L)																												
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																												
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																												
pH (IU)	--	--	7.66	7.99	7.78	NM	8.38	7.82	7.81	7.72	8.04	8.13	7.38	NM	NM	NM	7.55	7.27	7.45	7.89	7.81	7.83	7.94	NM	NM	NM	NM	NM
Conductivity (uS)	--	--	598	455	477	NM	620	478	528	603	596	614	590	NM	NM	NM	723	554	562	721	733	771	748	NM	NM	NM	NM	NM
Temperature (°C)	--	--	10.41	9.78	11	NM	10.96	8.62	10.2	12.6	10.35	6.16	11.34	NM	NM	NM	10.5	9.43	11.9	14.1	10.72	7.91	8.25	NM	NM	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	4.03	6.51	0.89	NM	3.22	6.69	1.11	1.89	1.23	4.15	4.78	NM	NM	NM	4.73	17.93	1.53	0.95	2.47	4.12	3.49	NM	NM	NM	NM	NM
Redox Potential (mV)	--	--	56	86.7	50	NM	53.7	93.9	71	146	-14.5	-144.2	16.5	NM	NM	NM	69	91.7	146	237	-112.9	-164.9	-91.6	NM	NM	NM	NM	NM

TABLE 2

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

			3515 Hecker Rd.										
			Original Potable Well						Replacement Potable Well				
Analyte	ES[1]	PAL[2]	10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15	10/5/16
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	**1.02 J**	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	NA	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	NA	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	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
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

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

			3515 Hecker Rd.										
			Original Potable Well						Replacement Potable Well				
Analyte	ES[1]	PAL[2]	10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	8/28/14	9/29/14	11/4/14	2/23/15	10/14/15	10/5/16
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~													
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	< 0.00016	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	< 0.00054	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00034 J	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	0.000061 J	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	< 0.00038	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	< 0.00031	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):													
Aroclor-1016	--	--	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements													
pH (IU)	--	--	8.02	7.77	7.44	NM	7.75	7.97	NM	NM	7.81	7.16	NM
Conductivity (uS)	--	--	775	634	616	NM	694	783	NM	NM	2219	2127	NM
Temperature (°C)	--	--	9.56	10.1	10.48	NM	10.6	11.7	NM	NM	7.19	11.73	NM
Dissolved Oxygen (ppm)	--	--	3.81	5.75	5.46	NM	2.13	1.73	NM	NM	5.19	1.85	NM
Redox Potential (mV)	--	--	20.1	74.8	91.8	NM	92	231	NM	NM	-154.6	-51	NM

TABLE 2

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

Analyte	ES[1]	PAL[2]	3518 Hecker Rd.														
			Original Potable Well			Replacement Potable Well											
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/2014 (DUP)	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15	10/6/16
			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
Volatile Organic Compounds (VOCs) (µg/L):																
Benzene	5	0.5	**1.74**	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 3.7	< 3.7	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 2.4	< 2.4	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	0.45 J	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 8.1	< 8.1	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 2.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 8.8	< 8.8	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 2.2	< 2.2	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 2.8	< 2.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	0.42 J	< 4.1	< 4.1	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	**1.62**	< 4	< 4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	**510**	**510**	**530**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	5.5	< 3.5	< 3.5	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 3.2	< 3.2	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 3.6	< 3.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 4.4	< 4.4	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 5.5	< 5.5	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 15	< 15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 3	< 3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 3.1	< 3.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 5	< 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 2.3	< 2.3	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 2.5	< 2.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 9.8	< 9.8	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 3.4	< 3.4	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 3.3	< 3.3	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 7.1	< 7.1	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 14	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 22	< 22	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**102**	**86**	**92**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 6.3	< 6.3	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 6.9	< 6.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

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

			3518 Hecker Rd.														
			Original Potable Well			Replacement Potable Well											
			10/23/13	11/7/13	11/7/13	3/11/14	3/11/2014 (DUP)	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15	10/14/15	10/6/16
Analyte	ES[1]	PAL[2]	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
~~RCRA Metals (mg/L)~~																	
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																
pH (IU)	--	--	6.16	7.48	7.4	NM	NM	NM	NM	7.37	7.37	7.9	7.74	8.00	7.23	NM
Conductivity (uS)	--	--	744	554	554	NM	NM	NM	NM	1571	1571	2080	1942	1948	2078	NM
Temperature (°C)	--	--	9.89	9.36	10.58	NM	NM	NM	NM	11.2	11.2	12.5	10.11	7.33	13.37	NM
Dissolved Oxygen (ppm)	--	--	3.21	3.32	3.85	NM	NM	NM	NM	3.87	3.87	1.22	1.93	4.83	1.37	NM
Redox Potential (mV)	--	--	74.1	92	93.1	NM	NM	NM	NM	-190	-190	178	-109.4	-123.8	-90	NM

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

			3609 Hecker Rd.														3625 Hecker Rd.					3627 Hecker Rd.			
			Original Potable Well									Replacement Potable Well													
Analyte	ES[1]	PAL[2]	10/22/13 Outside Spigot	11/7/13 Outside Spigot	11/7/13 Inside Kitchen	11/22/13 Outside Spigot	5/28/14 Ouside Spigot	5/28/14(DUP) Outside Spigot	7/11/14 Pressure Tank	8/25/16 Pressure Tank	8/25/14(DUP) Pressure Tank	9/29/14 Pressure Tank	11/4/14 Pressure Tank	2/24/15 Pressure Tank	10/13/15 Pressure Tank	10/5/16 Pressure Tank	10/22/13 Outside Spigot	11/7/13 Outside Spigot	11/7/13 Outside Spigot	10/5/16 Outside Spigot	10/5/16(DUP) Outside Spigot	10/23/13 Outside Spigot	11/7/13 Outside Spigot	5/29/14 Outside Spigot	5/30/17 Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																									
Benzene	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	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.17
Bromobenzene	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	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	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	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.31
Bromoform	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	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.49
tert-Butylbenzene	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	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.39
sec-Butylbenzene	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	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.24
n-Butylbenzene	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	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	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	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.21
Chlorobenzene	NL	NL	< 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	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.27
Chloroethane	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	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.5
Chloroform	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	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.96
Chloromethane	3	0.3	< 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	**0.82 J**	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 1.3
2-Chlorotoluene	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	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.36
4-Chlorotoluene	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	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	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	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 1.88
Dibromochloromethane	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	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	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	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.42
1,3-Dichlorobenzene	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	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.45
1,2-Dichlorobenzene	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	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.34
Dichlorodifluoromethane	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	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.38
1,2-Dichloroethane	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	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.45
1,1-Dichloroethane	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	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.42
1,1-Dichloroethene	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	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.46
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38	< 0.41
trans-1,2-Dichloroethene	100	20	< 0.35	0.39 J	< 0.35	NA	0.42 J	0.37 J	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	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	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.39
2,2-Dichloropropane	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	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	NA
1,3-Dichloropropane	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	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42
Di-isopropyl ether	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	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.26
EDB (1,2-Dibromoethane)	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	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.34
Ethylbenzene	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	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.2
Hexachlorobutadiene	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	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.47
Isopropylbenzene	NS	NS	< 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	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.29
p-Isopropyltoluene	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	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.28
Methylene Chloride	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	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 0.5	< 0.94
Methyl tert-butyl ether (MTBE)	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	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.82
Naphthalene	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	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 2.17
n-Propylbenzene	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	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	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	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.69
1,1,1,2-Tetrachloroethane	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	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.47
Tetrachloroethene	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	< 0.33	< 0.33	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.48
Toluene	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	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.67
1,2,4-Trichlorobenzene	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	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 1.29
1,2,3-Trichlorobenzene	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	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 0.83
1,1,1-Trichloroethane	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	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.35
1,1,2-Trichloroethane	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	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.65
Trichloroethene (TCE)	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	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.45
Trichlorofluoromethane	NL	NL	< 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	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 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	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.14
1,3,5-Trimethylbenzene	--	--	< 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	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 0.91
Total Trimethylbenzene	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	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.14
Vinyl Chloride	0.2	0.02	**1.0**	**1.09**	**1.02**	NA	**7.40**	**7.60**	**8.60**	**4.60**	**5.20**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.18	< 0.18	< 0.18	< 0.19
m&p-Xylene	--	--	< 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	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 1.56
o-Xylene	--	--	< 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	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.39
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 1.56

TABLE 2

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

			3609 Hecker Rd.														3625 Hecker Rd.					3627 Hecker Rd.			
			Original Potable Well									Replacement Potable Well													
			10/22/13	11/7/13	11/7/13	11/22/13	5/28/14	5/28/14(DUP)	7/11/14	8/25/16	8/25/14(DUP)	9/29/14	11/4/14	2/24/15	10/13/15	10/5/16	10/22/13	11/7/13	11/7/13	10/5/16	10/5/16(DUP)	10/23/13	11/7/13	5/29/14	5/30/17
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	0.00032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	< 0.00016	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	< 0.00054	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00056 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	< 0.00005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	< 0.00038	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	< 0.00031	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																									
Aroclor-1016	--	--	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																									
pH (IU)	--	--	7.56	7.28	7.42	NM	7.5	7.5	7.91	7.7	7.7	NM	7.77	7.72	7.17	NM	7.38	7.77	7.75	NM	NM	7.98	7.75	7.18	NM
Conductivity (uS)	--	--	754	558	614	NM	634	634	983	675	675	NM	2248	2203	2290	NM	782	552	651	NM	NM	707	531	576	NM
Temperature (°C)	--	--	10.53	9.99	12.84	NM	11.1	11.1	15.2	12.4	12.4	NM	10.69	7.01	7.17	NM	11.04	10.92	15.5	NM	NM	10.13	9.63	11.5	NM
Dissolved Oxygen (ppm)	--	--	4.02	3.9	4.14	NM	1.43	1.43	2.11	2.79	2.79	NM	3.42	7.78	1.92	NM	4.54	5.31	1.71	NM	NM	4.53	4.69	2.53	NM
Redox Potential (mV)	--	--	73	95.4	91.6	NM	60	60	131	199	199	NM	-141.9	-118.4	-75	NM	68.4	85.9	119	NM	NM	45.1	91.3	137	NM

TABLE 2

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

Analyte	ES[1]	PAL[2]	3702 Hecker Rd.										3720 Hecker Rd.				3710 Silver Creek Rd	3780 Silver Creek Rd	3802 Silver Creek Rd	3812 Silver Creek Rd		3902 Silver Creek Rd		4004 Silver Creek Rd	
			10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/15 (DUP)	3/31/16	10/11/16	5/30/17	10/22/13	11/12/13	6/2/14	3/31/16	5/31/17	5/30/17	5/30/17	5/28/14	1/14/16	11/18/14	10/10/16	11/18/14	10/13/15
			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	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.24	< 0.44	< 0.17	< 0.17	< 0.17	< 0.24	< 0.44	< 0.24	< 0.44	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.32	< 0.48	< 0.43	< 0.43	< 0.43	< 0.32	< 0.48	< 0.32	< 0.48	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.37	< 0.46	< 0.31	< 0.31	< 0.31	< 0.37	< 0.46	< 0.37	< 0.46	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.35	< 0.46	< 0.49	< 0.49	< 0.49	< 0.35	< 0.46	< 0.35	< 0.46	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 0.36	< 1.1	< 0.39	< 0.39	< 0.39	< 0.36	< 1.1	< 0.36	< 1.1	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 0.33	< 1.2	< 0.24	< 0.24	< 0.24	< 0.33	< 1.2	< 0.33	< 1.2	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 0.35	< 1	< 0.34	< 0.34	< 0.34	< 0.35	< 1	< 0.35	< 1	< 0.35	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.33	< 0.51	< 0.21	< 0.21	< 0.21	< 0.33	< 0.51	< 0.33	< 0.51	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.24	< 0.46	< 0.27	< 0.27	< 0.27	< 0.24	< 0.46	< 0.24	< 0.46	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.63	< 0.65	< 0.5	< 0.5	< 0.5	< 0.63	< 0.65	< 0.63	< 0.65	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.28	< 0.43	< 0.96	< 0.96	< 0.96	< 0.28	< 0.43	< 0.28	< 0.43	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	**1.48 J**	< 0.81	< 0.81	< 1.9	< 1.3	< 1.3	< 1.3	< 0.81	< 1.9	< 0.81	< 1.9	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.21	< 0.4	< 0.36	< 0.36	< 0.36	< 0.21	< 0.4	< 0.21	< 0.4	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.21	< 0.63	< 0.35	< 0.35	< 0.35	< 0.21	< 0.63	< 0.21	< 0.63	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.88	< 1.88	< 1.88	< 0.88	< 1.4	< 0.88	< 1.4	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.3	< 0.49	< 0.42	< 0.42	< 0.42	< 0.3	< 0.49	< 0.3	< 0.49	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.28	< 0.52	< 0.45	< 0.45	< 0.45	< 0.28	< 0.52	< 0.28	< 0.52	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.36	< 0.46	< 0.34	< 0.34	< 0.34	< 0.36	< 0.46	< 0.36	< 0.46	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.44	< 0.87	< 0.38	< 0.38	< 0.38	< 0.44	< 0.87	< 0.44	< 0.87	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.41	< 0.48	< 0.45	< 0.45	< 0.45	< 0.41	< 0.48	< 0.41	< 0.48	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 0.3	< 1.1	< 0.42	< 0.42	< 0.42	< 0.3	< 1.1	< 0.3	< 1.1	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.4	< 0.65	< 0.46	< 0.46	< 0.46	< 0.4	< 0.65	< 0.4	< 0.65	< 0.4	< 0.65
cis-1,2-Dichloroethene	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	< 0.38	< 0.38	< 0.38	< 0.45	< 0.41	< 0.41	< 0.41	< 0.38	< 0.45	< 0.38	< 0.45	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.32	< 0.43	< 0.39	< 0.39	< 0.39	< 0.32	< 0.43	< 0.32	< 0.43	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 0.36	< 3.1	NA	NA	NA	< 0.36	< 3.1	< 0.36	< 3.1	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	< 0.42	< 0.42	< 0.42	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.23	< 0.44	< 0.26	< 0.26	< 0.26	< 0.23	< 0.44	< 0.23	< 0.44	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.44	< 0.63	< 0.34	< 0.34	< 0.34	< 0.44	< 0.63	< 0.44	< 0.63	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.55	< 0.71	< 0.2	< 0.2	< 0.2	< 0.55	< 0.71	< 0.55	< 0.71	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 1.5	< 2.2	< 1.47	< 1.47	< 1.47	< 1.5	< 2.2	< 1.5	< 2.2	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.3	< 0.82	< 0.29	< 0.29	< 0.29	< 0.3	< 0.82	< 0.3	< 0.82	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 0.31	< 1.1	< 0.28	< 0.28	< 0.28	< 0.31	< 1.1	< 0.31	< 1.1	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 0.5	< 1.3	< 0.94	< 0.94	< 0.94	< 0.5	< 1.3	< 0.5	< 1.3	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 0.23	< 1.1	< 0.82	< 0.82	< 0.82	< 0.23	< 1.1	< 0.23	< 1.1	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.7	< 1.6	< 2.17	< 2.17	< 2.17	< 1.7	< 1.6	< 1.7	< 1.6	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.25	< 0.77	< 0.19	< 0.19	< 0.19	< 0.25	< 0.77	< 0.25	< 0.77	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.45	< 0.52	< 0.69	< 0.69	< 0.69	< 0.45	< 0.52	< 0.45	< 0.52	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.33	< 0.48	< 0.47	< 0.47	< 0.47	< 0.33	< 0.48	< 0.33	< 0.48	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.33	< 0.49	< 0.48	< 0.48	< 0.48	< 0.33	< 0.49	< 0.33	< 0.49	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.69	< 0.44	< 0.67	< 0.67	< 0.67	< 0.69	< 0.44	< 0.69	< 0.44	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 0.98	< 1.7	< 1.29	< 1.29	< 1.29	< 0.98	< 1.7	< 0.98	< 1.7	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 1.8	< 2.7	< 0.83	< 0.83	< 0.83	< 1.8	< 2.7	< 1.8	< 2.7	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.33	< 0.84	< 0.35	< 0.35	< 0.35	< 0.33	< 0.84	< 0.33	< 0.84	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.34	< 0.48	< 0.65	< 0.65	< 0.65	< 0.34	< 0.48	< 0.34	< 0.48	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.33	< 0.47	< 0.45	< 0.45	< 0.45	< 0.33	< 0.47	< 0.33	< 0.47	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.71	< 0.87	< 0.64	< 0.64	< 0.64	< 0.71	< 0.87	< 0.71	< 0.87	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 1.14	< 1.14	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.4	< 1.5	< 0.91	< 0.91	< 0.91	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 1.6	< 1.14	< 1.14	< 1.14	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.18	< 0.17	< 0.19	< 0.19	< 0.19	< 0.18	< 0.17	< 0.18	< 0.17	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 1.56	< 1.56	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.63	< 0.9	< 0.39	< 0.39	< 0.39	< 0.63	< 0.9	< 0.63	< 0.9	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 2.2	< 1.56	< 1.56	< 1.56	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 2.2

TABLE 2

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

			3702 Hecker Rd.										3720 Hecker Rd.				3710 Silver Creek Rd	3780 Silver Creek Rd	3802 Silver Creek Rd	3812 Silver Creek Rd		3902 Silver Creek Rd		4004 Silver Creek Rd	
			10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	10/14/15	10/14/15 (DUP)	3/31/16	10/11/16	5/30/17	10/22/13	11/12/13	6/2/14	3/31/16	5/31/17	5/30/17	5/30/17	5/28/14	1/14/16	11/18/14	10/10/16	11/18/14	10/13/15
Analyte	ES[1]	PAL[2]	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	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~																									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																									
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																									
pH (IU)	--	--	7.83	8.28	7.62	7.87	7.87	7.59	7.59	NM	NM	NM	8.03	7.86	7.43	NM	NM	NM	NM	7.97	NM	8.26	NM	7.96	7.49
Conductivity (uS)	--	--	757	522	552	657	657	635	635	NM	NM	NM	775	529	622	NM	NM	NM	NM	520	NM	654	NM	826	917
Temperature (°C)	--	--	9.82	10.58	14	14.1	14.1	12.51	12.51	NM	NM	NM	9.56	10.58	12.1	NM	NM	NM	NM	10.4	NM	10	NM	9.68	10.88
Dissolved Oxygen (ppm)	--	--	4.73	8.16	4.6	3.77	3.77	6.25	6.25	NM	NM	NM	3.81	7.26	1.22	NM	NM	NM	NM	1.98	NM	7.75	NM	2.8	3.87
Redox Potential (mV)	--	--	52.9	100.4	158	245	245	-91.9	-91.9	NM	NM	NM	20.1	87.4	155	NM	NM	NM	NM	112.0	NM	-38.0	NM	65.8	-48.6

TABLE 2

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

			4156 Silver Creek Rd		4159 Silver Creek Rd												4220 Silver Creek Rd		4314 Silver Creek Rd			4315 Silver Creek Rd			4609 Silver Creek Rd	
			5/28/14	3/30/16	12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16	10/10/16	5/30/17	5/30/14	5/30/17	12/5/13	6/4/14	5/30/17	12/12/13	6/2/14	5/31/17	12/3/13	6/3/14
Analyte	ES[1]	PAL[2]	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	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																										
Benzene	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	< 0.24	< 0.17	< 0.24	< 0.24	< 0.17	< 0.24	< 0.24	< 0.17	< 0.15	< 0.24
Bromobenzene	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	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.15	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.15	NA
Bromodichloromethane	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	< 0.37	< 0.31	< 0.37	< 0.37	< 0.31	< 0.37	< 0.37	< 0.31	< 0.15	< 0.37
Bromoform	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	< 0.35	< 0.49	< 0.35	< 0.35	< 0.49	< 0.35	< 0.35	< 0.49	< 0.15	< 0.35
tert-Butylbenzene	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	< 0.36	< 0.39	< 0.36	< 0.36	< 0.39	< 0.36	< 0.36	< 0.39	< 0.15	< 0.36
sec-Butylbenzene	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	< 0.33	< 0.24	< 0.33	< 0.33	< 0.24	< 0.33	< 0.33	< 0.24	< 0.15	< 0.33
n-Butylbenzene	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	< 0.35	< 0.34	< 0.35	< 0.35	< 0.34	< 0.35	< 0.35	< 0.34	< 0.15	< 0.35
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	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	< 0.33	< 0.21	< 0.33	< 0.33	< 0.21	< 0.33	< 0.33	< 0.21	< 0.15	< 0.33
Chlorobenzene	NL	NL	< 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	< 0.24	< 0.27	< 0.24	< 0.24	< 0.27	< 0.24	< 0.24	< 0.27	< 0.15	< 0.24
Chloroethane	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	< 0.63	< 0.5	< 0.63	< 0.63	< 0.5	< 0.63	< 0.63	< 0.5	< 0.15	< 0.63
Chloroform	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	< 0.28	< 0.96	< 0.28	< 0.28	< 0.96	< 0.28	< 0.28	< 0.96	< 0.15	< 0.28
Chloromethane	3	0.3	< 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	< 0.81	< 1.3	< 0.81	< 0.81	< 1.3	< 0.81	< 0.81	< 1.3	< 0.15	< 0.81
2-Chlorotoluene	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	< 0.21	< 0.36	< 0.21	< 0.21	< 0.36	< 0.21	< 0.21	< 0.36	< 0.15	< 0.21
4-Chlorotoluene	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	< 0.21	< 0.35	< 0.21	< 0.21	< 0.35	< 0.21	< 0.21	< 0.35	< 0.15	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	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	< 0.88	< 1.88	< 0.88	< 0.88	< 1.88	< 0.88	< 0.88	< 1.88	< 0.20	< 0.88
Dibromochloromethane	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	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.15	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.15	NA
1,4-Dichlorobenzene	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	< 0.3	< 0.42	< 0.3	< 0.3	< 0.42	< 0.3	< 0.3	< 0.42	< 0.15	< 0.3
1,3-Dichlorobenzene	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	< 0.28	< 0.45	< 0.28	< 0.28	< 0.45	< 0.28	< 0.28	< 0.45	< 0.15	< 0.28
1,2-Dichlorobenzene	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	< 0.36	< 0.34	< 0.36	< 0.36	< 0.34	< 0.36	< 0.36	< 0.34	< 0.15	< 0.36
Dichlorodifluoromethane	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	< 0.44	< 0.38	< 0.44	< 0.44	< 0.38	< 0.44	< 0.44	< 0.38	< 0.20	< 0.44
1,2-Dichloroethane	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	< 0.41	< 0.45	< 0.41	< 0.41	< 0.45	< 0.41	< 0.41	< 0.45	< 0.15	< 0.41
1,1-Dichloroethane	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	< 0.3	< 0.42	< 0.3	< 0.3	< 0.42	< 0.3	< 0.3	< 0.42	< 0.15	< 0.3
1,1-Dichloroethene	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	< 0.4	< 0.46	< 0.4	< 0.4	< 0.46	< 0.4	< 0.4	< 0.46	< 0.15	< 0.4
cis-1,2-Dichloroethene	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	< 0.38	< 0.41	< 0.38	< 0.38	< 0.41	< 0.38	< 0.38	< 0.41	< 0.15	< 0.38
trans-1,2-Dichloroethene	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	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.15	< 0.35
1,2-Dichloropropane	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	< 0.32	< 0.39	< 0.32	< 0.32	< 0.39	< 0.32	< 0.32	< 0.39	< 0.15	< 0.32
2,2-Dichloropropane	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	< 0.36	NA	< 0.36	< 0.36	NA	< 0.36	< 0.36	NA	< 0.15	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.49	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.15	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.15	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	< 0.21	NA	NA	< 0.21	NA	NA	< 0.21	< 0.15	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	< 0.42	NA	NA	< 0.42	NA	NA	< 0.42	< 0.15	NA
Di-isopropyl ether	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	< 0.23	< 0.26	< 0.23	< 0.23	< 0.26	< 0.23	< 0.23	< 0.26	NA	< 0.23
EDB (1,2-Dibromoethane)	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	< 0.44	< 0.34	< 0.44	< 0.44	< 0.34	< 0.44	< 0.44	< 0.34	< 0.15	< 0.44
Ethylbenzene	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	< 0.55	< 0.2	< 0.55	< 0.55	< 0.2	< 0.55	< 0.55	< 0.2	< 0.15	< 0.55
Hexachlorobutadiene	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	< 1.5	< 1.47	< 1.5	< 1.5	< 1.47	< 1.5	< 1.5	< 1.47	< 0.15	< 1.5
Isopropylbenzene	NS	NS	< 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	< 0.3	< 0.29	< 0.3	< 0.3	< 0.29	< 0.3	< 0.3	< 0.29	< 0.15	< 0.3
p-Isopropyltoluene	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	< 0.31	< 0.28	< 0.31	< 0.31	< 0.28	< 0.31	< 0.31	< 0.28	< 0.15	< 0.31
Methylene Chloride	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	< 0.5	< 0.94	< 0.5	< 0.5	< 0.94	< 0.5	< 0.5	< 0.94	< 0.15	< 0.5
Methyl tert-butyl ether (MTBE)	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	< 0.23	< 0.82	< 0.23	< 0.23	< 0.82	< 0.23	< 0.23	< 0.82	< 0.15	< 0.23
Naphthalene	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	< 1.7	< 2.17	< 1.7	< 1.7	< 2.17	< 1.7	< 1.7	< 2.17	< 0.15	< 1.7
n-Propylbenzene	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	< 0.25	< 0.19	< 0.25	< 0.25	< 0.19	< 0.25	< 0.25	< 0.19	< 0.15	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.15	NA
1,1,2,2-Tetrachloroethane	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	< 0.45	< 0.69	< 0.45	< 0.45	< 0.69	< 0.45	< 0.45	< 0.69	< 0.20	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.15	< 0.33
Tetrachloroethene	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	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.15	< 0.33
Toluene	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	< 0.69	< 0.67	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69	< 0.67	< 0.15	< 0.69
1,2,4-Trichlorobenzene	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	< 0.98	< 1.29	< 0.98	< 0.98	< 1.29	< 0.98	< 0.98	< 1.29	< 0.15	< 0.98
1,2,3-Trichlorobenzene	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	< 1.8	< 0.83	< 1.8	< 1.8	< 0.83	< 1.8	< 1.8	< 0.83	< 0.15	< 1.8
1,1,1-Trichloroethane	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	< 0.33	< 0.35	< 0.33	< 0.33	< 0.35	< 0.33	< 0.33	< 0.35	< 0.15	< 0.33
1,1,2-Trichloroethane	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	< 0.34	< 0.65	< 0.34	< 0.34	< 0.65	< 0.34	< 0.34	< 0.65	< 0.15	< 0.34
Trichloroethene (TCE)	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	< 0.33	< 0.45	< 0.33	< 0.33	< 0.45	< 0.33	< 0.33	< 0.45	< 0.15	< 0.33
Trichlorofluoromethane	NL	NL	< 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	< 0.71	< 0.64	< 0.71	< 0.71	< 0.64	< 0.71	< 0.71	< 0.64	< 0.15	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.15	NA
1,2,4-Trimethylbenzene	--	--	< 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	< 2.2	< 1.14	< 2.2	< 2.2	< 1.14	< 2.2	< 2.2	< 1.14	< 0.15	< 2.2
1,3,5-Trimethylbenzene	--	--	< 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	< 1.4	< 0.91	< 1.4	< 1.4	< 0.91	< 1.4	< 1.4	< 0.91	< 0.15	< 1.4
Total Trimethylbenzene	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	< 2.2	< 1.14	< 2.2	< 2.2	< 1.14	< 2.2	< 2.2	< 1.14	< 0.15	< 2.2
Vinyl Chloride	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	< 0.18	< 0.19	< 0.18	< 0.18	< 0.19	< 0.18	< 0.18	< 0.19	< 0.20	< 0.18
m&p-Xylene	--	--	< 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	< 0.69	< 1.56	< 0.69	< 0.69	< 1.56	< 0.69	< 0.69	< 1.56	< 0.15	< 0.69
o-Xylene	--	--	< 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	< 0.63	< 0.39	< 0.63	< 0.63	< 0.39	< 0.63	< 0.63	< 0.39	< 0.15	< 0.63
Total Xylenes	2,000	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	< 0.69	< 1.56	< 0.69	< 0.69	< 1.56	< 0.69	< 0.69	< 1.56	< 0.15	< 0.69

TABLE 2

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

			4156 Silver Creek Rd		4159 Silver Creek Rd											4220 Silver Creek Rd		4314 Silver Creek Rd			4315 Silver Creek Rd			4609 Silver Creek Rd	
			5/28/14	3/30/16	12/12/13	1/6/14	6/4/14	6/4/14(DUP)	9/8/14	11/10/14	11/10/14 (DUP)	2/23/15	10/14/15	3/30/16	10/10/16	5/30/17	5/30/14	5/30/17	12/5/13	6/4/14	5/30/17	12/12/13	6/2/14	5/31/17	12/3/13	6/3/14
Analyte	ES[1]	PAL[2]	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	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
RCRA Metals (mg/L)																									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																									
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																									
pH (IU)	--	--	7.91	NM	8.75	7.99	7.53	7.53	7.53	7.93	7.93	7.94	7.51	NM	NM	NM	7.11	NM	8.05	7.48	NM	8.32	7.38	NM	NM	7.25
Conductivity (uS)	--	--	683	NM	979	593	562	562	562	562	562	654	646	NM	NM	NM	835	NM	956	958	NM	789	545	NM	NM	526
Temperature (°C)	--	--	12.2	NM	9.8	9.72	12.4	12.4	12.4	11.23	11.23	8.29	12.91	NM	NM	NM	11.4	NM	8.64	11.7	NM	6.8	12.3	NM	NM	12.4
Dissolved Oxygen (ppm)	--	--	3.76	NM	2.59	5.87	2.3	2.3	2.3	4.12	4.12	3.56	3.18	NM	NM	NM	4.54	NM	7.32	2.97	NM	4.01	1.91	NM	NM	2.61
Redox Potential (mV)	--	--	117.0	NM	101.0	135.2	146	146	146	-63.9	-63.9	-138.9	-117.7	NM	NM	NM	145.0	NM	87.0	168.0	NM	105	111	NM	NM	165

TABLE 2

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

Analyte	ES[1]	PAL[2]	4620 Silver Creek Rd.				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd.		2706 CTH CR		2716 CTH CR			2717 CTH CR(4141 Viebahn St.)						Non-Potable Well	
																		Original Potable Well							
			11/8/13	11/12/13	5/28/14	5/28/14	12/5/13	6/2/14	12/5/13	5/30/14	1/9/08	12/5/13	8/26/14	10/5/16	9/8/14	11/18/14	10/13/15	8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15	3/31/16	10/6/16
			House-Outside	Barn-Inside	House-Outside	Barn-Inside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Faucet	Garage Faucet
Volatile Organic Compounds (VOCs) (µg/L):																									
Benzene	5	0.5	< 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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 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	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	< NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 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	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 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	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 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	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 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	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 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	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 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	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 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	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 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	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 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	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 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	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 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	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 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	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 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	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 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	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	0.45 J	< 0.44	< 0.44	< 0.44	< 0.44	< 0.46	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 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	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 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	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 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	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.7	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	1.4	1.31	1.44	1.3	1.26 J	1.72	< 0.45	1.53
trans-1,2-Dichloroethene	100	20	< 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	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 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	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 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	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 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	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 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	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 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	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 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	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 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	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 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	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	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	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 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	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 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	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 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	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 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	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49
Toluene	800	160	< 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	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 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	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 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	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 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	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 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	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 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	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 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	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 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	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 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	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 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	**0.21 J**	**0.29 J**	**0.31 J**	**0.39 J**	**0.35 J**	**0.47 J**	< 0.17	**0.32 J**
m&p-Xylene	--	--	< 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	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 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	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 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	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2

City Water Provided December 2015

TABLE 2

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

			4620 Silver Creek Rd.				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd.		2706 CTH CR		2716 CTH CR			2717 CTH CR(4141 Viebahn St.)							
																		Original Potable Well						Non-Potable Well	
			11/8/13	11/12/13	5/28/14	5/28/14	12/5/13	6/2/14	12/5/13	5/30/14	1/9/08	12/5/13	8/26/14	10/5/16	9/8/14	11/18/14	10/13/15	8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	10/13/15	3/31/16	10/6/16
Analyte	ES[1]	PAL[2]	House-Outside	Barn-Inside	House-Outside	Barn-Inside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Faucet	Garage Faucet
~~RCRA Metals (mg/L)~~																									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																									
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																									
pH (IU)	--	--	7.84	7.53	7.84	7.68	7.39	7.64	6.54	7.69	NM	8.72	7.59	NM	7.59	8.61	7.87	8.03	7.87	7.87	7.95	8.15	7.73	NM	NM
Conductivity (uS)	--	--	534	493	614	576	535	530	588	538	NM	609	540	NM	658	374	409	640	721	721	625	662	621	NM	NM
Temperature (°C)	--	--	10.58	8.23	10.2	8.2	12.19	12.1	8.93	11.4	NM	7.50	14.20	NM	12.83	8.45	11.90	8.03	9.15	9.15	12.28	6.49	13.10	NM	NM
Dissolved Oxygen (ppm)	--	--	10.33	3.49	0.99	4.3	5.22	1.21	7.21	1.58	NM	5.32	1.76	NM	2.11	7.32	5.22	2.28	1.73	1.73	3.39	4.63	1.45	NM	NM
Redox Potential (mV)	--	--	86.7	114.5	89	88	69.9	138	83.4	137	NM	81.1	227	NM	131	20.6	-91	239	221	221	-65	-162.7	-113.4	NM	NM

City Water Provided December 2015

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

			2734(2804) CTH CR							2832&2904 CTH CR			2911 CTH CR		2916 CTH CR								2917 CTH CR				
			Original Potable Well												Original Potable Well								Original Potable Well				
Analyte	ES[1]	PAL[2]	6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15	2/4/14	6/3/14	3/30/16	5/29/14	10/7/16	2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15	2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)
			Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot
Volatile Organic Compounds (VOCs) (µg/L):																											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.44	< 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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 1.2	< 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
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 1	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.46	< 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
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.43	< 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	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	24.3	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 1.9	< 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
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.49	< 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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.52	< 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
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.87	< 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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.48	< 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
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.65	< 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
cis-1,2-Dichloroethene	70	7	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	0.94 J	< 0.38	< 0.38	< 0.45	< 0.38	< 0.45	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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54	< 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
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 1.1	< 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
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 1.3	< 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 (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 1.1	< 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
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.44	< 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
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**	**0.45 J**	< 0.18	< 0.18	< 0.17	< 0.18	< 0.17	**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**
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2

Well Abandoned, City Water Provided December 2015

TABLE 2

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

			2734(2804) CTH CR								2832&2904 CTH CR			2911 CTH CR		2916 CTH CR								2917 CTH CR				
			Original Potable Well													Original Potable Well								Original Potable Well				
Analyte	ES[1]	PAL[2]	6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	10/14/15	Well Abandoned, City Water Provided December 2015	2/4/14	6/3/14	3/30/16	5/29/14	10/7/16	2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	10/13/15	Well Abandoned, City Water Provided December 2015	2/4/14	5/30/14	10/13/15	10/27/15	10/27/15 (DUP)	Well Abandoned, City Water Provided December 2015
			Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Pressure Tank		Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank		Kitchen Sink	Kitchen Sink	Spigot	Spigot	Spigot	
~~RCRA Metals (mg/L)~~																													
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Poychlorinated Biphenyls (PCBs) (µg/L):																													
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Field Screening Measurements																													
pH (IU)	--	--	7.32	8.01	7.87	NM	NM	7.96	7.53		7.32	7.6	NM	7.19	NM	7.35	12.6	7.53	7.91	NM	NM	NM	7.58		7.32	7.82	7.39	NM	NM	
Conductivity (uS)	--	--	485	606	661	NM	NM	597	594		411	588	NM	727	NM	396	1329	NM	601	NM	NM	NM	614		962	1709	1134	NM	NM	
Temperature (°C)	--	--	12.20	15.50	10.42	NM	NM	6.11	13.10		6.61	14.50	NM	11.70	NM	9.60	12.60	11.50	10.50	NM	NM	NM	11.98		9.01	11.90	12.32	NM	NM	
Dissolved Oxygen (ppm)	--	--	0.97	0.96	1.79	NM	NM	6.15	1.01		NM	2.35	NM	2.98	NM	5.32	1.5	1.73	1.64	NM	NM	NM	4.4		NM	1.22	1.49	NM	NM	
Redox Potential (mV)	--	--	161	237	-99.4	NM	NM	-133.9	-121.2		95.2	167	NM	115	NM	110	121	138	-85.3	NM	NM	NM	-104.5		113.2	134	-135.9	NM	NM	

TABLE 2

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

Analyte	ES[1]	PAL[2]	3023 CTH CR							
			Original Potable Well			Replacement Potable Well				
			2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15	10/5/16
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):										
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	2.84	2.87	2.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2

TABLE 2

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

			3023 CTH CR							
			Original Potable Well			Replacement Potable Well				
			2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15	10/13/15	10/5/16
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
RCRA Metals (mg/L):										
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):										
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements										
pH (IU)	--	--	7.32	7.42	7.75	NM	7.7	7.64	7.21	NM
Conductivity (uS)	--	--	404	562	619	NM	2352	2286	2337	NM
Temperature (°C)	--	--	9.16	11.10	12.80	NM	10.30	8.17	13.01	NM
Dissolved Oxygen (ppm)	--	--	NM	1.5	0.87	NM	2.21	3.74	2.63	NM
Redox Potential (mV)	--	--	113.2	152	222	NM	-126.3	-112	-68.2	NM

TABLE 2

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

			3120 CTH CR											3224 CTH CR					3312 CTH CR					3322 CTH CR				
			Original Potable Well						Replacement Potable Well																			
			1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15	10/6/16	2/4/14	6/4/14	8/25/14	11/17/14	3/31/16	2/26/14	6/2/14	8/26/14	11/10/14	10/5/16	1/6/14	6/4/14	8/25/14	11/10/14	10/13/15
Analyte	ES[1]	PAL[2]	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	Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	Bath Tub	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):																												
Benzene	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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	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	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	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	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	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	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	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	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	**0.60**	**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	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2

TABLE 2

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

			3120 CTH CR											3224 CTH CR					3312 CTH CR					3322 CTH CR				
			Original Potable Well						Replacement Potable Well																			
Analyte	ES[1]	PAL[2]	1/3/14	2/4/14	5/28/14	5/28/14(DUP)	8/25/14	8/25/14(DUP)	10/8/14	11/4/14	2/23/15	10/13/15	10/6/16	2/4/14	6/4/14	8/25/14	11/17/14	3/31/16	2/26/14	6/2/14	8/26/14	11/10/14	10/5/16	1/6/14	6/4/14	8/25/14	11/10/14	10/13/15
			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	Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	Bath Tub	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
~~RCRA Metals (mg/L)~~																												
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																												
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																												
pH (IU)	--	--	7.51	7.39	7.8	7.8	7.91	7.91	NM	7.61	7.79	7.19	NM	NM	7.66	8.17	7.98	NM	NM	7.93	7.75	7.98	NM	7.82	7.9	8.06	8.06	7.72
Conductivity (uS)	--	--	566	570	616	616	649	649	NM	2177	2051	2119	NM	383	513	653	598	NM	NM	416	765	2750	NM	417	380	475	475	520
Temperature (°C)	--	--	8.27	8.04	11.20	11.20	7.91	7.91	NM	10.30	7.94	12.73	NM	9.24	11.50	13.10	8.69	NM	NM	11.8	11.7	10.63	NM	9.08	12.10	14.40	14.40	11.50
Dissolved Oxygen (ppm)	--	--	5.32	5.32	4.79	4.79	1.24	1.24	NM	3.21	4.58	2.5	NM	NM	2.87	1.91	2.61	NM	NM	2.48	0.57	3.11	NM	5.32	1.3	0.57	0.57	2.02
Redox Potential (mV)	--	--	158.1	157.3	111	111	247	247	NM	-135.6	-112.7	-77.4	NM	111.3	170	235	-55.8	NM	NM	87	225	40.3	NM	174.8	151	242	242	-114.7

TABLE 2

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

			3403 CTH CR									3412 CTH CR				3422 CTH CR				
			Original Potable Well				Replacement Potable Well													
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15	10/5/16	1/3/14	8/26/14	11/10/14	3/31/16	1/6/14	5/30/14	8/25/14	11/18/14	10/5/16
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.33	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.41	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.38	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 0.5	1.56 J	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	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	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2

TABLE 2

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

			3403 CTH CR									3412 CTH CR				3422 CTH CR				
			Original Potable Well				Replacement Potable Well													
			1/3/14	2/5/14	5/28/14	8/25/14	10/21/14	11/4/14	2/23/15	10/13/15	10/5/16	1/3/14	8/26/14	11/10/14	3/31/16	1/6/14	5/30/14	8/25/14	11/18/14	10/5/16
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																				
pH (IU)	--	--	7.51	7.18	7.64	7.74	NM	7.69	7.66	7.15	NM	7.02	7.98	7.95	NM	7.13	7.62	8.07	8	NM
Conductivity (uS)	--	--	935	682	1060	1094	NM	2528	2436	2361	NM	909	521	512	NM	627	605	633	653	NM
Temperature (°C)	--	--	7.63	8.12	10.50	12.90	NM	11.76	6.99	16.42	NM	8.99	13.60	10.65	NM	8.81	12.30	14.20	10.56	NM
Dissolved Oxygen (ppm)	--	--	6.51	5.01	1.19	3.23	NM	1.49	5.2	1.52	NM	5.52	1.25	2.82	NM	5.32	4.07	2.53	7.38	NM
Redox Potential (mV)	--	--	166.6	32.2	84	236	NM	-219.9	-129.3	-41.4	NM	155.0	238.0	-51.5	NM	142.0	1.3	246.0	-84.2	NM

TABLE 2

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

			3504 CTH CR																3523 CTH CR			3533 CTH CR			3611 CTH CR	
			Original Potable Well														Replacement Potable Well									
Analyte	ES[1]	PAL[2]	12/5/13 Outside Spigot	1/6/14 Basement	1/6/2014 (DUP) Basement	2/5/14 Basement	5/30/14 Basement	5/30/14(DUP) Basement	8/25/14 Basement	8/25/14(DUP) Basement	11/18/14 Basement	11/18/2014 (DUP) Basement	2/23/15 Basement	10/14/15 Basement	3/31/16 Basement	3/31/2016 (DUP) Basement	10/11/16 Basement	10/24/16 Basement	11/8/16 Basement	2/23/17 Basement	1/3/14 Basement	6/3/14 Basement	10/14/15 Basement	1/6/14 Basement	6/3/14 Basement	3/30/16 Basement	5/30/14 Outside Spigot	10/5/16 Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																												
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1	< 0.35	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	0.28 J	0.28 J	< 0.43	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 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	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.28	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	0.76 J	0.91 J	1.17 J	< 0.45	< 0.45	< 0.41	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< NA	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 1.1
Methylene Chloride	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	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.33	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 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	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2

TABLE 2

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

			3504 CTH CR																		3523 CTH CR			3533 CTH CR			3611 CTH CR	
			Original Potable Well														Replacement Potable Well											
Analyte	ES[1]	PAL[2]	12/5/13	1/6/14	1/6/2014 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/2014 (DUP)	2/23/15	10/14/15	3/31/16	3/31/2016 (DUP)	10/11/16	10/24/16	11/8/16	2/23/17	1/3/14	6/3/14	10/14/15	1/6/14	6/3/14	3/30/16	5/30/14	10/5/16
			Outside Spigot	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Basement	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																												
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																												
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																												
pH (IU)	--	--	8.15	7.53	7.53	7.13	7.39	7.39	7.75	7.75	8.05	8.05	7.92	7.5	NM	NM	NM	NM	NM	NM	7.93	7.93	7.5	7.49	6.84	NM	6.98	NM
Conductivity (uS)	--	--	633	636	636	503	586	586	699	699	687	687	715	709	NM	NM	NM	NM	NM	NM	506	506	567	739	885	NM	931	NM
Temperature (°C)	--	--	12.49	9.07	9.07	11.49	12.1	12.1	13.8	13.8	9.79	9.79	8.25	12.19	NM	NM	NM	NM	NM	NM	11.71	11.71	11.29	9.92	12.50	NM	10.30	NM
Dissolved Oxygen (ppm)	--	--	4.58	7.70	7.70	5.06	2.30	2.30	2.42	2.42	5.33	5.33	4.71	4.46	NM	NM	NM	NM	NM	NM	2.96	2.96	4.69	5.91	1.85	NM	3.95	NM
Redox Potential (mV)	--	--	75.3	124.4	124.4	38.2	144.0	144.0	242.0	242.0	-100.7	-100.7	-122.8	-109.5	NM	NM	NM	NM	NM	NM	187.0	187.0	-101.9	157.2	138	NM	166	NM

TABLE 2

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

Analyte	ES[1]	PAL[2]	3618 CTH CR									3626 CTH CR			3627 CTH CR			3904 CTH CR			
			1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16	10/6/16	5/30/17	12/5/13	5/30/14	10/14/15	12/5/13	5/29/14	3/30/16	12/5/13	5/28/14	5/30/17	5/30/2017 (DUP)
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink	Bathroom	Bathroom	Bathroom	Basement	Basement	Basement	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																					
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.17	< 0.17
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.43	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.31	< 0.31
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.49	< 0.49
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.39	< 0.39
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.24	< 0.24
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.34	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.21	< 0.21
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.27	< 0.27
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.5	< 0.5
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.96	< 0.96
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.3	< 1.3
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.36	< 0.36
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.35	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.88	< 1.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.42	< 0.42
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.45	< 0.45
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.34	< 0.34
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.38	< 0.38
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.45	< 0.45
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.42	< 0.42
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.46	< 0.46
cis-1,2-Dichloroethene	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	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.41	< 0.41
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.39	< 0.39
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< NA	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	NA	NA
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.26	< 0.26
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.34	< 0.34
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.2	< 0.2
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.47	< 1.47
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.29	< 0.29
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.28	< 0.28
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.94	< 0.94
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.82	< 0.82
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 2.17	< 2.17
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.19	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.69	< 0.69
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.47	< 0.47
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.48	< 0.48
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.67	< 0.67
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.29	< 1.29
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 0.83	< 0.83
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.35	< 0.35
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.65	< 0.65
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.45	< 0.45
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.64	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.14	< 1.14
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 0.91	< 0.91
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.14	< 1.14
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.19	< 0.19
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 1.56	< 1.56
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.39	< 0.39
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 1.56	< 1.56

TABLE 2

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

			3618 CTH CR									3626 CTH CR			3627 CTH CR			3904 CTH CR			
			1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	10/14/15	3/30/16	10/6/16	5/30/17	12/5/13	5/30/14	10/14/15	12/5/13	5/29/14	3/30/16	12/5/13	5/28/14	5/30/17	5/30/2017 (DUP)
Analyte	ES[1]	PAL[2]	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Kitchen Sink	Kitchen Sink	Kitchen Sink	Bathroom	Bathroom	Bathroom	Basement	Basement	Basement	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																					
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																					
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																					
pH (IU)	--	--	7.02	7.8	7.87	7.95	7.95	7.79	NM	NM	NM	8.42	7.58	7.86	8.49	7.5	NM	8.05	7.88	NM	NM
Conductivity (uS)	--	--	543	520	658	674	674	649	NM	NM	NM	519	500	578	655	861	NM	828	905	NM	NM
Temperature (°C)	--	--	9.02	7.80	18.30	11.33	11.33	16.22	NM	NM	NM	8.69	11.98	11.99	12.16	15.1	NM	8.43	11.5	NM	NM
Dissolved Oxygen (ppm)	--	--	5.32	2.24	0.8	1.44	1.44	1.49	NM	NM	NM	5.73	1.83	2.52	4.92	1.46	NM	5.32	3.84	NM	NM
Redox Potential (mV)	--	--	147.6	136	238	-102.5	-102.5	-14.7	NM	NM	NM	90.0	143.0	-110.8	91.3	152	NM	96.9	138	NM	NM

TABLE 2

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

Analyte	ES[1]	PAL[2]	4024 CTH CR			4101 CTH CR		4125 CTH CR		4002 Thunder Ridge Rd.											
										Original Potable Well							Replacement Potable Well			
			12/12/13	5/28/14	10/6/16	5/29/14	10/14/15	5/31/17	5/31/17 (DUP)	1/3/14	8/25/14	10/13/15	10/13/2015 (DUP)	10/27/15	3/31/16	3/31/16 (DUP)	5/23/16	6/2/16	6/23/16	10/5/16
			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	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):																					
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.44	< 0.17	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.48	< 0.43	< 0.43	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.37	< 0.46	< 0.31	< 0.31	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.46	< 0.49	< 0.49	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 1.1	< 0.39	< 0.39	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 1.2	< 0.24	< 0.24	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 1	< 0.34	< 0.34	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.51	< 0.33	< 0.51	< 0.21	< 0.21	< 0.33	< 0.33	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.46	< 0.27	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.65	< 0.5	< 0.5	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.43	< 0.96	< 0.96	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 1.9	< 1.3	< 1.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.4	< 0.36	< 0.36	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.63	< 0.35	< 0.35	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 1.4	< 1.88	< 1.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.3	< 0.49	< 0.42	< 0.42	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.52	< 0.45	< 0.45	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.46	< 0.34	< 0.34	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.87	< 0.38	< 0.38	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.41	< 0.48	< 0.45	< 0.45	< 0.41	< 0.41	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 1.1	< 0.42	< 0.42	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.65	< 0.46	< 0.46	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.38	< 0.45	< 0.41	< 0.41	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	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54	< 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	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.43	< 0.39	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 3.1	NA	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.49	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.42	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	< 0.21	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	< 0.42	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.23	< 0.44	< 0.26	< 0.26	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.63	< 0.34	< 0.34	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.71	< 0.2	< 0.2	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 2.2	< 1.47	< 1.47	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.82	< 0.29	< 0.29	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 1.1	< 0.28	< 0.28	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 1.3	< 0.94	< 0.94	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 1.1	< 0.82	< 0.82	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6	< 2.17	< 2.17	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.77	< 0.19	< 0.19	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.45	< 0.52	< 0.69	< 0.69	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.48	< 0.47	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.49	< 0.33	< 0.49	< 0.48	< 0.48	< 0.33	< 0.33	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.44	< 0.67	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 1.7	< 1.29	< 1.29	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 2.7	< 0.83	< 0.83	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.84	< 0.35	< 0.35	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.48	< 0.65	< 0.65	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47	< 0.45	< 0.45	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.87	< 0.64	< 0.64	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 1.14	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 0.91	< 0.91	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 1.14	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	< 0.17	< 0.19	< 0.19	< 0.18	< 0.18	< 0.17	0.2 J	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 1.56	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.9	< 0.39	< 0.39	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 1.56	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2

TABLE 2

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

			4024 CTH CR			4101 CTH CR		4125 CTH CR		4002 Thunder Ridge Rd.										
										Original Potable Well							Replacement Potable Well			
Analyte	ES[1]	PAL[2]	12/12/13 Spigot in Barn	5/28/14 Spigot in Barn	10/6/16 Pressure Tank	5/29/14 Pressure Tank	10/14/15 Pressure Tank	5/31/17 Pressure Tank	5/31/17 (DUP) Pressure Tank	1/3/14 Pressure Tank	8/25/14 Pressure Tank	10/13/15 Pressure Tank	10/13/2015 (DUP) Pressure Tank	10/27/15 Pressure Tank	3/31/16 Pressure Tank	3/31/16 (DUP) Pressure Tank	5/23/16 Pressure Tank	6/2/16 Pressure Tank	6/23/16 Pressure Tank	10/5/16 Pressure Tank
~~RCRA Metals (mg/L)~~																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																				
pH (IU)	--	--	8.32	7.65	NM	7.42	7.65	NM	NM	7.21	7.32	7.45	7.45	NM	NM	NM	NM	NM	NM	NM
Conductivity (uS)	--	--	599	565	NM	598	687	NM	NM	583	740	774	774	NM	NM	NM	NM	NM	NM	NM
Temperature (°C)	--	--	5.6	12.3	NM	12.4	12.93	NM	NM	8.51	13.1	12.74	12.74	NM	NM	NM	NM	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	4.71	1.44	NM	2.3	2.54	NM	NM	5.32	3.49	1.42	1.42	NM	NM	NM	NM	NM	NM	NM
Redox Potential (mV)	--	--	99	124	NM	126	-75	NM	NM	159.0	237.0	-135.8	-135.8	NM	NM	NM	NM	NM	NM	NM

TABLE 2

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

			4005 Thunder Ridge Rd.										4010 Thunder Ridge Rd.							
			Original Potable Well									Replacement Potable Well	Original Potable Well							Replacement Potable Well
Analyte	ES[1]	PAL[2]	5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16	10/10/16	10/24/16	11/8/16	5/30/17	5/28/14	8/26/14	2/24/15	10/20/15	3/31/16	10/7/16	10/24/16	5/31/17
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																				
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88
Dibromochloromethane	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	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
cis-1,2-Dichloroethene	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	1.37	1.18 J	1.43	1.27 J	1.47 J	1.27 J	1.42	< 0.41
trans-1,2-Dichloroethene	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	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.42	< 0.49	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	< 0.42
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
Vinyl Chloride	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	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	**0.27 J**	**0.20 J**	< 0.19
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56

TABLE 2

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

			4005 Thunder Ridge Rd.										4010 Thunder Ridge Rd.							
			Original Potable Well									Replacement Potable Well	Original Potable Well							Replacement Potable Well
			5/29/14	8/26/14	11/11/14	2/23/15	10/14/15	3/30/16	10/10/16	10/24/16	11/8/16	5/30/17	5/28/14	8/26/14	2/24/15	10/20/15	3/31/16	10/7/16	10/24/16	5/31/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																				
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																				
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																				
pH (lU)	--	--	7.75	8.06	8.00	8.06	7.23	NM	NM	NM	NM	NM	7.97	7.85	8.15	7.71	NM	NM	NM	NM
Conductivity (uS)	--	--	663	781	774	744	778	NM	NM	NM	NM	NM	687	742	746	0.762	NM	NM	NM	NM
Temperature (°C)	--	--	12	14.9	9.71	8.1	10.7	NM	NM	NM	NM	NM	14.2	13.3	8.83	12.79	NM	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	1.43	1.35	1.66	8.33	4.65	NM	NM	NM	NM	NM	0.99	2.35	6.62	4.18	NM	NM	NM	NM
Redox Potential (mV)	--	--	122.0	199.0	-120.9	-195.4	-73.6	NM	NM	NM	NM	NM	118.0	245.0	-158.0	-99.1	NM	NM	NM	NM

TABLE 2

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

			4027 Thunder Ridge Rd.										4101 Thunder Ridge Rd.							4111 Thunder Ridge Rd.						
			5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16	10/6/16	10/6/16 (DUP)	5/30/17	8/26/14	11/17/14	3/11/15	10/14/15	3/30/16	11/8/16	5/30/17	8/25/14	11/17/14	2/23/15	10/13/15	3/30/16	10/10/16	5/30/17
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):																									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88
Dibromochloromethane	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	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
cis-1,2-Dichloroethene	70	7	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.67 J	0.71 J	0.77 J	0.96 J	0.87 J	0.73 J	0.63 J	0.76 J	0.87 J	0.71 J	1.02 J	0.73 J	0.41 J	< 0.38	< 0.45	< 0.45	< 0.45	0.56 J	0.56 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.42	< 0.49	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	0.42	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	< 0.42
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56

TABLE 2

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

			4027 Thunder Ridge Rd.										4101 Thunder Ridge Rd.							4111 Thunder Ridge Rd.						
			5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	10/13/15	3/31/16	10/6/16	10/6/16 (DUP)	5/30/17	8/26/14	11/17/14	3/11/15	10/14/15	3/30/16	11/8/16	5/30/17	8/25/14	11/17/14	2/23/15	10/13/15	3/30/16	10/10/16	5/30/17
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot
~~RCRA Metals (mg/L)~~																									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																										
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																										
pH (IU)	--	--	7.52	7.43	7.95	7.95	7.94	7.25	NM	NM	NM	NM	7.75	7.7	NM	6.91	NM	NM	NM	7.65	7.99	7.98	7.68	NM	NM	NM
Conductivity (uS)	--	--	702	837	890	890	1928	820	NM	NM	NM	NM	836	777	NM	846	NM	NM	NM	809	786	818	827	NM	NM	NM
Temperature (°C)	--	--	12	13	11.13	11.13	8.09	11.61	NM	NM	NM	NM	15.4	9.74	NM	10.58	NM	NM	NM	12.8	8.88	7.83	13.73	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	2.1	1.96	3.25	3.25	4.48	3.29	NM	NM	NM	NM	1.4	1.24	NM	3.21	NM	NM	NM	0.97	5.9	4.31	1.68	NM	NM	NM
Redox Potential (mV)	--	--	132.0	229.0	-109.8	-109.8	-150.9	-79.9	NM	NM	NM	NM	236.0	-33.7	NM	-66.8	NM	NM	NM	236.0	-41.4	-155.3	-120.9	NM	NM	NM

TABLE 2

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

Analyte	ES[1]	PAL[2]	4127 Thunder Ridge Rd.			3107 Fricke Dr.	3617(3621) Viebahn St.					
			12/5/13	5/29/14	3/30/16	12/5/13	11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16
			Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):												
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.38	1.13 J	1.12 J	0.92 J	0.87 J	1.3 J	1.12 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**	**0.23 J**	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2

Well Abandoned, City Water Provided

Analyte	3701 Viebahn St.							
	Original Potable Well							
	10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	10/14/15	10/14/2015 (DUP)	
	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Benzene	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	
Bromobenzene	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	
Bromochloromethane	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	
Bromoform	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	
tert-Butylbenzene	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	
sec-Butylbenzene	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	
n-Butylbenzene	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	
Carbon Disulfide	NA	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51	
Chlorobenzene	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	
Chloroethane	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	
Chloroform	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	
Chloromethane	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	
2-Chlorotoluene	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	
4-Chlorotoluene	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	
1,2-Dibromo-3-chloropropane (DBCP)	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	
Dibromochloromethane	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	
Dibromomethane	NA	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	
1,3-Dichlorobenzene	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	
1,2-Dichlorobenzene	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	
Dichlorodifluoromethane	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	
1,2-Dichloroethane	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	
1,1-Dichloroethane	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	
1,1-Dichloroethene	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	
cis-1,2-Dichloroethene	1.23	1.18 J	1.29	1.31 J	1.09 J	1.55	1.48	
trans-1,2-Dichloroethene	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	
1,2-Dichloropropane	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	
2,2-Dichloropropane	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	
1,3-Dichloropropane	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	
1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	
Di-isopropyl ether	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	
EDB (1,2-Dibromoethane)	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	
Ethylbenzene	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	
Hexachlorobutadiene	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	
Isopropylbenzene	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	
p-Isopropyltoluene	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	
Methylene Chloride	1.5 J	1.17 J	1.12 J	< 1.3	< 1.3	< 1.3	< 1.3	
Methyl tert-butyl ether (MTBE)	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	
Naphthalene	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	
n-Propylbenzene	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	
Styrene	NA	NA	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	
1,1,1,2-Tetrachloroethane	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	
Tetrachloroethene	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49	
Toluene	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	
1,2,4-Trichlorobenzene	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	
1,2,3-Trichlorobenzene	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	
1,1,1-Trichloroethane	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	
1,1,2-Trichloroethane	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	
Trichloroethene (TCE)	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	
Trichlorofluoromethane	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	
1,3,5-Trimethylbenzene	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	
Total Trimethylbenzene	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	
Vinyl Chloride	**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**	**0.34 J**	**0.37 J**	
m&p-Xylene	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	
o-Xylene	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	
Total Xylenes	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2	

Well Abandoned, City Water Provided December 2015

Analyte	3815 Viebahn St.					
	Original Potable Well					
	11/7/14	11/19/14	2/23/15	10/13/15	10/13/15 (DUP)	
	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	
Benzene	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	
Bromobenzene	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	
Bromochloromethane	NA	NA	NA	NA	NA	
Bromodichloromethane	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	
Bromoform	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	
tert-Butylbenzene	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	
sec-Butylbenzene	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	
n-Butylbenzene	< 0.35	< 0.35	< 0.35	< 1	< 1	
Carbon Disulfide	NA	NA	NA	NA	NA	
Carbon Tetrachloride	< 0.33	< 0.33	< 0.33	< 0.51	< 0.51	
Chlorobenzene	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	
Chloroethane	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	
Chloroform	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	
Chloromethane	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	
2-Chlorotoluene	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	
4-Chlorotoluene	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	
1,2-Dibromo-3-chloropropane (DBCP)	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	
Dibromochloromethane	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	
Dibromomethane	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	
1,3-Dichlorobenzene	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	
1,2-Dichlorobenzene	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	
Dichlorodifluoromethane	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	
1,2-Dichloroethane	< 0.41	< 0.41	< 0.41	< 0.48	< 0.48	
1,1-Dichloroethane	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	
1,1-Dichloroethene	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	
cis-1,2-Dichloroethene	0.74 J	0.94 J	0.90 J	1.0 J	1.12 J	
trans-1,2-Dichloroethene	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	
1,2-Dichloropropane	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	
2,2-Dichloropropane	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	
1,3-Dichloropropane	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	
1,1-Dichloropropene	NA	NA	NA	NA	NA	
cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	
trans-1,3-Dichloropropene	NA	NA	NA	NA	NA	
Di-isopropyl ether	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	
EDB (1,2-Dibromoethane)	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	
Ethylbenzene	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	
Hexachlorobutadiene	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	
Isopropylbenzene	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	
p-Isopropyltoluene	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	
Methylene Chloride	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	
Methyl tert-butyl ether (MTBE)	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	
Naphthalene	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	
n-Propylbenzene	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	
Styrene	NA	NA	NA	NA	NA	
1,1,2,2-Tetrachloroethane	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	
1,1,1,2-Tetrachloroethane	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	
Tetrachloroethene	< 0.33	< 0.33	< 0.33	< 0.49	< 0.49	
Toluene	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	
1,2,4-Trichlorobenzene	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	
1,2,3-Trichlorobenzene	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	
1,1,1-Trichloroethane	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	
1,1,2-Trichloroethane	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	
Trichloroethene (TCE)	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	
Trichlorofluoromethane	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	
1,2,3-Trichloropropane	NA	NA	NA	NA	NA	
1,2,4-Trimethylbenzene	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	
1,3,5-Trimethylbenzene	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	
Total Trimethylbenzene	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	
Vinyl Chloride	**0.33 J**	**0.31 J**	**0.25 J**	**0.2 J**	**0.32 J**	
m&p-Xylene	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	
o-Xylene	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	
Total Xylenes	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	

Well Abandoned, City Water Provided December 2015

TABLE 2

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

			4127 Thunder Ridge Rd.			3107 Fricke Dr.	3617(3621) Viebahn St.							3701 Viebahn St.							3815 Viebahn St.					
														Original Potable Well							Original Potable Well					
			12/5/13	5/29/14	3/30/16	12/5/13	11/7/14	11/19/14	2/24/15	2/2415 (DUP)	10/13/15	3/30/16		10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	10/14/15	10/14/2015 (DUP)		11/7/14	11/19/14	2/23/15	10/13/15	10/13/15 (DUP)	
Analyte	ES[1]	PAL[2]	Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2015	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Well Abandoned, City Water Provided December 2015
~~RCRA Metals (mg/L)~~																										
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Poychlorinated Biphenyls (PCBs) (µg/L):																										
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
Field Screening Measurements																										
pH (IU)	--	--	8.24	7.32	NM	7.63	8.12	7.99	8.32	8.32	7.39	NM		8.38	7.76	7.76	8.04	8.04	7.32	7.32		8.01	7.63	7.68	7.43	7.43	
Conductivity (uS)	--	--	1033	1046	NM	561	646	590	511	511	663	NM		630	658	658	618	618	624	624		644	561	664	645	645	
Temperature (°C)	--	--	8.53	11.5	NM	8.58	10.44	9.95	9.00	9.00	12.06	NM		10.13	9.68	9.68	7.31	7.31	10.57	10.57		10.05	8.58	7.84	11.71	11.71	
Dissolved Oxygen (ppm)	--	--	5.21	1.33	NM	5.32	3.7	1.93	3.89	3.89	1.67	NM		6.51	4.68	4.68	7.1	7.1	3.3	3.3		2.54	5.32	3.51	5.54	5.54	
Redox Potential (mV)	--	--	95.0	132.0	NM	80.3	-29.2	-147.6	-185.7	-185.7	-123.4	NM		-58.3	13.3	13.3	-131.9	-131.9	-90.3	-90.3		21.5	80.3	-113.7	-66.5	-66.5	

TABLE 2

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

			3817 Viebahn St.							3825 Viebahn St.							4025 Viebahn St. Original Potable Well				4101 Viebahn St. Original Potable Well				4219 Viebahn St.		5107 Viebahn St.
Analyte	ES[1]	PAL[2]	10/29/14 Outside Spigot	11/7/14 Outside Spigot	2/24/15 Pressure Tank	10/20/15 Outside Spigot	3/31/16 Outside Spigot	10/6/16 Outside Spigot	5/30/17 Outside Spigot	10/29/14 Outside Spigot	11/7/14 Outside Spigot	2/23/15 Pressure Tank	2/23/15 (DUP) Pressure Tank	10/14/15 Pressure Tank	3/31/16 Pressure Tank	10/6/16 Pressure Tank	10/29/14 Pressure Tank	11/7/14 Pressure Tank	2/24/15 Pressure Tank	10/13/15 Pressure Tank	10/29/14 Pressure Tank	11/7/15 Pressure Tank	2/24/15 Pressure Tank	10/14/15 Pressure Tank	9/8/14 Outside Spigot	10/27/15 Outside Spigot	12/5/13 Well Pump
Volatile Organic Compounds (VOCs) (µg/L):																											
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.44	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.48	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.37	< 0.46	< 0.46	< 0.37	< 0.46	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.46	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 1.1	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 1.2	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 1	< 1	< 0.35	< 1	< 0.35
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.65	< 0.65	< 0.51	< 0.51	< 0.51	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.33	< 0.65	< 0.51	< 0.33	< 0.51	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.46	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.65	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.43	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 1.9	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.4	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.63	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 1.4	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.45	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.3	< 0.49	< 0.49	< 0.3	< 0.49	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.52	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.46	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.87	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.54	< 0.54	< 0.48	< 0.48	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.41	< 0.54	< 0.48	< 0.41	< 0.48	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 1.1	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.65	< 0.4
cis-1,2-Dichloroethene	70	7	0.4 J	< 0.38	< 0.45	0.49 J	< 0.45	0.47 J	0.50 J	< 0.38	< 0.38	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	1.38	1.46	1.11 J	1.85	1.48	1.13 J	1.24 J	1.59 J	< 0.38	< 0.45	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.43	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 3.1	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.42	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.44	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.63	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.71	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 2.2	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.82	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 1.1	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 1.3	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 1.1	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.6	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.77	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.45	< 0.52	< 0.52	< 0.45	< 0.52	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.48	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.74	< 0.74	< 0.49	< 0.49	< 0.49	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.33	< 0.74	< 0.49	< 0.33	< 0.49	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	0.95 J	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.44	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 1.7	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 2.7	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.84	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.48	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.47	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.87	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 1.6	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.5	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 1.6	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	**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	< 0.17	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 2.2	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.9	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.9	< 0.9	< 2.2	< 2.2	< 2.2	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 0.69	< 0.9	< 2.2	< 0.69	< 2.2	< 0.69

Well Abandoned, City Water Provided December 2015

Well Abandoned, City Water Provided December 2015

TABLE 2

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

			3817 Viebahn St.							3825 Viebahn St.							4025 Viebahn St.					4101 Viebahn St.					4219 Viebahn St.		5107 Viebahn St.
																	Original Potable Well					Original Potable Well							
Analyte	ES[1]	PAL[2]	10/29/14	11/7/14	2/24/15	10/20/15	3/31/16	10/6/16	5/30/17	10/29/14	11/7/14	2/23/15	2/23/15 (DUP)	10/14/15	3/31/16	10/6/16	10/29/14	11/7/14	2/24/15	10/13/15		10/29/14	11/7/15	2/24/15	10/14/15		9/8/14	10/27/15	12/5/13
			Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	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	Pressure Tank		Outside Spigot	Outside Spigot	Well Pump
~~RCRA Metals (mg/L)~~																												
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																												
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA		NA	NA	NA
Field Screening Measurements																												
pH (IU)	--	--	7.83	8.31	8.13	8.27	NM	NM	NM	7.87	8.21	8.03	8.03	7.67	NM	NM	7.87	8.03	7.92	7.35		7.79	7.99	8.04	7.51		7.45	NM	8.1
Conductivity (uS)	--	--	631	658	746	649	NM	NM	NM	674	668	670	670	655	NM	NM	824	629	628	630		644	627	653	624		779	NM	571
Temperature (°C)	--	--	10.85	10.42	9.47	13.03	NM	NM	NM	10.27	9.86	7.43	7.43	12.83	NM	NM	10.89	10.23	8.86	11.43		11.17	10.87	8.99	12.21		11.75	NM	11.09
Dissolved Oxygen (ppm)	--	--	3.22	3.37	2.72	8.4	NM	NM	NM	2.94	6.05	4.32	4.32	1.16	NM	NM	2.45	3.11	4.78	2.38		2.31	3.21	4.05	2.11		3.21	NM	4.23
Redox Potential (mV)	--	--	-95.3	14	-158.6	-42.5	NM	NM	NM	-104.5	-21.3	-120.7	-120.7	-116.2	NM	NM	-104.9	-2.2	-126.9	-86.3		-91.1	-22.3	-151.7	-114.3		225	NM	84.5

Well Abandoned, City Water Provided December 2015

Well Abandoned, City Water Provided December 2015

TABLE 2

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

Analyte	ES[1]	PAL[2]	3609 M&M Ln.		3027 Orchard Ln.									3128 Orchard Ln.			3318 Orchard Ln.		3420 Orchard Ln.			3523 Orchard Ln.		3524 Orchard Ln.			
			12/4/13	12/16/13	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16	10/6/16	5/31/17	2/4/14	6/4/14	10/14/15	7/11/14	10/24/16	2/4/14	6/2/14	10/6/16	2/4/14	5/28/14	2/4/14	6/2/14	6/2/2014(DUP)	10/13/15
			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	Kitchen Sink	Kitchen Sink	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):																											
Benzene	5	0.5	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.44	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.48	< 0.32	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.15	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.46	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.46	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 1.1	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 1.2	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34	< 0.35	< 0.35	< 1	< 0.35	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.51	< 0.33	< 0.51	< 0.33	< 0.33	< 0.51	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.51
Chlorobenzene	NL	NL	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.46	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.65	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.43	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.15	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 1.9	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.4	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.63	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.20	< 0.20	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 1.4	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.15	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.49	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.52	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.46	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.20	< 0.20	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.87	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.15	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.48	< 0.41	< 0.48	< 0.41	< 0.41	< 0.48	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.48
1,1-Dichloroethane	850	85	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 1.1	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.15	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.65	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.15	< 0.15	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.59 J	< 0.45	0.46 J	0.54 J	< 0.38	< 0.38	< 0.45	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.43	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 3.1	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.49	< 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-Dichloropropene	NL	NL	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	NA	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.44	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.15	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.63	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.15	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.71	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 0.15	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 2.2	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.82	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.15	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 1.1	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.15	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 1.3	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.15	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 1.1	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 0.15	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.6	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.15	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.77	< 0.25	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.20	< 0.20	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.52	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.48	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.49	< 0.33	< 0.49	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.49
Toluene	800	160	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.44	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.15	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 1.7	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 0.15	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 2.7	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.84	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.15	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.48	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.47	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.15	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.87	< 0.71	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 0.15	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.5	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 1.6	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.20	< 0.20	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.17	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.9	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 2.2	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2

TABLE 2

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

			3609 M&M Ln.		3027 Orchard Ln.									3128 Orchard Ln.			3318 Orchard Ln.		3420 Orchard Ln.			3523 Orchard Ln.		3524 Orchard Ln.			
			12/4/13	12/16/13	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	10/14/15	3/31/16	10/6/16	5/31/17	2/4/14	6/4/14	10/14/15	7/11/14	10/24/16	2/4/14	6/2/14	10/6/16	2/4/14	5/28/14	2/4/14	6/2/14	6/2/2014(DUP)	10/13/15
Analyte	**ES[1]**	**PAL[2]**	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	Kitchen Sink	Kitchen Sink	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink
~~RCRA Metals (mg/L)~~																											
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):																											
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements																											
pH (IU)	--	--	NM	NM	7.21	7.25	7.82	8.03	NM	7.88	NM	NM	NM	7.32	7.63	7.61	7.52	NM	7.1	8.06	NM	7.21	7.78	7.03	7.41	7.41	7.34
Conductivity (uS)	--	--	NM	NM	379	136	921	553	NM	548	NM	NM	NM	603	797	843	1033	NM	454	470	NM	514	671	579	672	672	900
Temperature (°C)	--	--	NM	NM	8.5	10.6	10.7	10.29	NM	12.69	NM	NM	NM	8.75	10.4	12.13	13.8	NM	7.1	11.8	NM	8.96	10.6	9.29	12.1	12.1	12.28
Dissolved Oxygen (ppm)	--	--	NM	NM	7.42	2.5	1.22	4.06	NM	2.07	NM	NM	NM	NM	1.97	2.26	4.11	NM	6.53	1.23	NM	5.32	4.99	5.3	1.62	1.62	1.77
Redox Potential (mV)	--	--	NM	NM	42.4	136	236	-7.3	NM	-100.6	NM	NM	NM	113.2	117	-106.5	123	NM	123.2	165	NM	210.0	111.0	117.3	159.0	159.0	-75.7

TABLE 2

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

			3911 Black Hawk Ct.			3921 Black Hawk Ct.								
			7/8/15	10/6/16	5/31/17	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16	10/5/16	5/30/17
Analyte	ES[1]	PAL[2]	Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	5	0.5	< 0.44	< 0.44	< 0.17	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.44	< 0.44	< 0.17
Bromobenzene	NL	NL	< 0.48	< 0.48	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.48	< 0.48	< 0.43
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.46	< 0.46	< 0.31	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.46	< 0.46	< 0.46	< 0.31
Bromoform	4.4	0.44	< 0.46	< 0.46	< 0.49	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.46	< 0.46	< 0.49
tert-Butylbenzene	NL	NL	< 1.1	< 1.1	< 0.39	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 1.1	< 1.1	< 0.39
sec-Butylbenzene	NL	NL	< 1.2	< 1.2	< 0.24	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24
n-Butylbenzene	NL	NL	< 1	< 1	< 0.34	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 1	< 1	< 0.34
Carbon Disulfide	1000	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	5	0.5	< 0.51	< 0.51	< 0.21	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.51	< 0.51	< 0.51	< 0.21
Chlorobenzene	NL	NL	< 0.46	< 0.46	< 0.27	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.46	< 0.46	< 0.27
Chloroethane	400	80	< 0.65	< 0.65	< 0.5	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.65	< 0.65	< 0.5
Chloroform	6	0.6	< 0.43	< 0.43	< 0.96	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.43	< 0.43	< 0.96
Chloromethane	3	0.3	< 1.9	< 1.9	< 1.3	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 1.9	< 1.9	< 1.3
2-Chlorotoluene	NL	NL	< 0.4	< 0.4	< 0.36	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.4	< 0.4	< 0.36
4-Chlorotoluene	NL	NL	< 0.63	< 0.63	< 0.35	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.63	< 0.63	< 0.35
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 1.4	< 1.4	< 1.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 1.4	< 1.4	< 1.88
Dibromochloromethane	60	6	< 0.45	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.49	< 0.49	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.49	< 0.49	< 0.49	< 0.42
1,3-Dichlorobenzene	600	120	< 0.52	< 0.52	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.52	< 0.52	< 0.45
1,2-Dichlorobenzene	600	60	< 0.46	< 0.46	< 0.34	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.46	< 0.46	< 0.34
Dichlorodifluoromethane	1000	200	< 0.87	< 0.87	< 0.38	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.87	< 0.87	< 0.38
1,2-Dichloroethane	5	0.5	< 0.48	< 0.48	< 0.45	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.48	< 0.48	< 0.48	< 0.45
1,1-Dichloroethane	850	85	< 1.1	< 1.1	< 0.42	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 1.1	< 1.1	< 0.42
1,1-Dichloroethene	7	0.7	< 0.65	< 0.65	< 0.46	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.65	< 0.65	< 0.46
cis-1,2-Dichloroethene	70	7	< 0.45	0.59 J	< 0.41	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J	1.04 J	0.71 J	0.63	0.57 J
trans-1,2-Dichloroethene	100	20	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.54	< 0.54	< 0.35
1,2-Dichloropropane	5	0.5	< 0.43	< 0.43	< 0.39	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.43	< 0.43	< 0.39
2,2-Dichloropropane	NL	NL	< 3.1	< 3.1	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 3.1	< 3.1	< NA
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.49	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.42	< 0.49
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.42	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42
Di-isopropyl ether	NL	NL	< 0.44	< 0.44	< 0.26	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.44	< 0.44	< 0.26
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.63	< 0.63	< 0.34	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.63	< 0.63	< 0.34
Ethylbenzene	700	140	< 0.71	< 0.71	< 0.2	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.71	< 0.71	< 0.2
Hexachlorobutadiene	NL	NL	< 2.2	< 2.2	< 1.47	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 2.2	< 2.2	< 1.47
Isopropylbenzene	NS	NS	< 0.82	< 0.82	< 0.29	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.82	< 0.82	< 0.29
p-Isopropyltoluene	NL	NL	< 1.1	< 1.1	< 0.28	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 1.1	< 1.1	< 0.28
Methylene Chloride	5	0.5	< 1.3	< 1.3	< 0.94	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 0.94
Methyl tert-butyl ether (MTBE)	60	12	< 1.1	< 1.1	< 0.82	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 1.1	< 1.1	< 0.82
Naphthalene	100	10	< 1.6	< 1.6	< 2.17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.6	< 1.6	< 2.17
n-Propylbenzene	NL	NL	< 0.77	< 0.77	< 0.19	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.77	< 0.77	< 0.19
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.52	< 0.52	< 0.69	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.52	< 0.52	< 0.52	< 0.69
1,1,1,2-Tetrachloroethane	70	7	< 0.48	< 0.48	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.48	< 0.48	< 0.47
Tetrachloroethene	5	0.5	< 0.49	< 0.49	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.49	< 0.49	< 0.49	< 0.48
Toluene	800	160	< 0.44	< 0.44	< 0.67	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.44	< 0.44	< 0.67
1,2,4-Trichlorobenzene	70	14	< 1.7	< 1.7	< 1.29	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 1.7	< 1.7	< 1.29
1,2,3-Trichlorobenzene	NL	NL	< 2.7	< 2.7	< 0.83	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 2.7	< 2.7	< 0.83
1,1,1-Trichloroethane	200	40	< 0.84	< 0.84	< 0.35	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.84	< 0.84	< 0.35
1,1,2-Trichloroethane	5	0.5	< 0.48	< 0.48	< 0.65	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.48	< 0.48	< 0.65
Trichloroethene (TCE)	5	0.5	< 0.47	< 0.47	< 0.45	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.47	< 0.47	< 0.45
Trichlorofluoromethane	NL	NL	< 0.87	< 0.87	< 0.64	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.87	< 0.87	< 0.64
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
1,3,5-Trimethylbenzene	--	--	< 1.5	< 1.5	< 0.91	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.5	< 1.5	< 0.91
Total Trimethylbenzene	480	96	< 1.6	< 1.6	< 1.14	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 1.6	< 1.6	< 1.14
Vinyl Chloride	0.2	0.02	< 0.17	< 0.17	< 0.19	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.17	< 0.17	< 0.17	< 0.19
m&p-Xylene	--	--	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 2.2	< 2.2	< 1.56
o-Xylene	--	--	< 0.9	< 0.9	< 0.39	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.9	< 0.9	< 0.39
Total Xylenes	2,000	400	< 2.2	< 2.2	< 1.56	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 2.2	< 2.2	< 2.2	< 1.56

TABLE 2

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

			3911 Black Hawk Ct.			3921 Black Hawk Ct.								
			7/8/15	10/6/16	5/31/17	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15	10/14/15	3/31/16	10/5/16	5/30/17
Analyte	**ES[1]**	**PAL[2]**	Spigot	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank
~~RCRA Metals (mg/L)~~														
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):														
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements														
pH (IU)	--	--	NM	NM	NM	7.21	7.61	7.45	7.95	7.99	7.5	NM	NM	NM
Conductivity (uS)	--	--	NM	NM	NM	468	636	762	754	810	742	NM	NM	NM
Temperature (°C)	--	--	NM	NM	NM	10.06	12.7	14.3	11.85	8.8	13.77	NM	NM	NM
Dissolved Oxygen (ppm)	--	--	NM	NM	NM	NM	2.83	1.34	5.53	7.64	2.48	NM	NM	NM
Redox Potential (mV)	--	--	NM	NM	NM	100.3	148	206	-27.2	-160.9	-124.6	NM	NM	NM

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

NOTES:

(1) Enforcement Standard from NR140, January 2012.

(2) Preventive Action Limit from NR140, January 2012.

NL - ES or PAL not listed in NR140.

NA - Not analyzed.
ND - Not detected.
NM - Not measured.
NS - Not sampled.
J - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
Q - Compound was detected at a concentration between the limit of detection (LOD) and the limit of quantitation (LOQ).
& - LCS recovery was outside of control limits.
H - Holding time exceeded by (n) days
D - The result is from a dilution analysis.
A - Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
ED - Elevated detection limit due to matric effects.
MS - Either the matrix spike or matrix spike duplicate was outside of the acceptable control limits. All other supporting QC was within the acceptable control limits.
E - Analyte concentraion exceeds calibration range (see Sample Narrative).
* - Duplicate analyses not within control limits.
B(x) - Analyte is detected in the method blank at "x" concentration. Method blank criteria is evaluated to the laboratory LOD. Additionally, method blank acceptance may be basedon project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
N - Spiked sample revocery not within control limits; post-digestion spike recovery accepted.
B - Analyte found in method blank.
OC - Elevated reporting limit due to analyte concentration.

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

Table 3
POTABLE WELL MONITORING WORK PLAN

SUMMARY OF FIVE YEAR POTABLE WELL SAMPLING PLAN (UPDATED JUNE 2017)
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2017		2018		2019		2020		2021	
			May	October	May	October	May	October	May	October	May	October
Target Zone Wells (semi-annual sampling)												
3817 Viebahn St		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3327 Hecker Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3461(3417) Hecker Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3702 Hecker Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3618 CTH CR		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
4027 Thunder Ridge Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
4101 Thunder Ridge Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
4111 Thunder Ridge Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3911 Blackhawk Ct		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3921 Black Hawk Ct		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
4159 Silver Creek Rd		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
3027 Orchard Ln		May 2017	~~1~~	1	1	1	1	1	1	1	1	1
Target Zone Sentinel Wells (sample annualy)												
3320 Hecker Rd		Oct 2016		1		1		1		1		1
3825 Viebahn St		Oct 2016		1		1		1		1		1
2832 (2904) CTH CR		Oct 2016		1		1		1		1		1
2911 CTH CR		Oct 2016		1		1		1		1		1
3224 CTH CR		Oct 2016		1		1		1		1		1
3312 CTH CR		Oct 2016		1		1		1		1		1
3322 CTH CR		Oct 2016		1		1		1		1		1
3412 CTH CR		Oct 2016		1		1		1		1		1
3422 CTH CR		Oct 2016		1		1		1		1		1
3523 CTH CR		Oct 2016		1		1		1		1		1
3533 CTH CR		Oct 2016		1		1		1		1		1
3611 CTH CR		Oct 2016		1		1		1		1		1
3626(3626B) CTH CR		Oct 2016		1		1		1		1		1
3627 CTH CR		Oct 2016		1		1		1		1		1
Sentinel Zone 3-Year Wells (sample every 3rd year)												
3625 Hecker Rd		Oct 2016						1				Oct 2022
2717 CTH CR (4141 Viebahn St) non-potable well		Oct 2016						1				Oct 2022
2716 CTH CR		Oct 2015				1						1
3904 CTH CR		May 2017	~~1~~						1			
4024 CTH CR		Oct 2016						1				Oct 2022
4101 CTH CR		Oct 2015				1						1
4127 Thunder Ridge Rd		March 2016					1					May 2022
3128 Orchard Ln		Oct 2015				1						1
4212 Silver Creek Rd 4220 Silver Creek Rd (3 Properties Share Well) 4236 Silver Creek Rd		May 2017	~~1~~						1			
4314 Silver Creek Rd		June 2014	~~1~~						1			
Sentinel Zone 5-Year Wells (sample every 5th year)												
4219 Viebahn St		Oct 2015								1		
3121 Hecker Rd		Oct 2015								1		
3720 Hecker Rd		March 2016									1	
3627 Hecker Rd		May 2017	~~1~~									May 2022
2706 CTH CR		Oct 2016										1
4125 CTH CR		May 2017	~~1~~									May 2022
3318 Orchard Ln.		Oct 2016										1
3420 Orchard Ln.		Oct 2016										1
3524 Orchard Ln.		Oct 2015								1		
3710 Silver Creek Rd		May 2017	~~1~~									May 2022
3780 Silver Creek Rd		May 2017	~~1~~									May 2022
3802 Silver Creek Rd		May 2017	~~1~~									May 2022
3812 Silver Creek Rd		January 2016									1	
3902 Silver Creek Rd		Oct 2016										1
4004 Silver Creek Rd		Oct 2015								1		
4156 Silver Creek Rd		March 2016									1	
4315 Silver Creek Rd		May 2017	~~1~~									May 2022
Replacement Wells (sample every 5th year)												
3303 Hecker Rd		Oct 2016										1
3515 Hecker Rd		Oct 2016										1
3518 Hecker Rd		Oct 2016										1
3609 Hecker Rd		Oct 2016										1
3023 CTH CR		Oct 2016										1
3120 CTH CR		Oct 2016										1
3403 CTH CR		Oct 2016										1
3504 CTH CR		Feb 2017	~~1~~									1
4002 Thunder Ridge Rd		Oct 2016										1
4005 Thunder Ridge Rd		May 2017	~~1~~									May 2022
4010 Thunder Ridge Rd		May 2017	~~1~~									May 2022

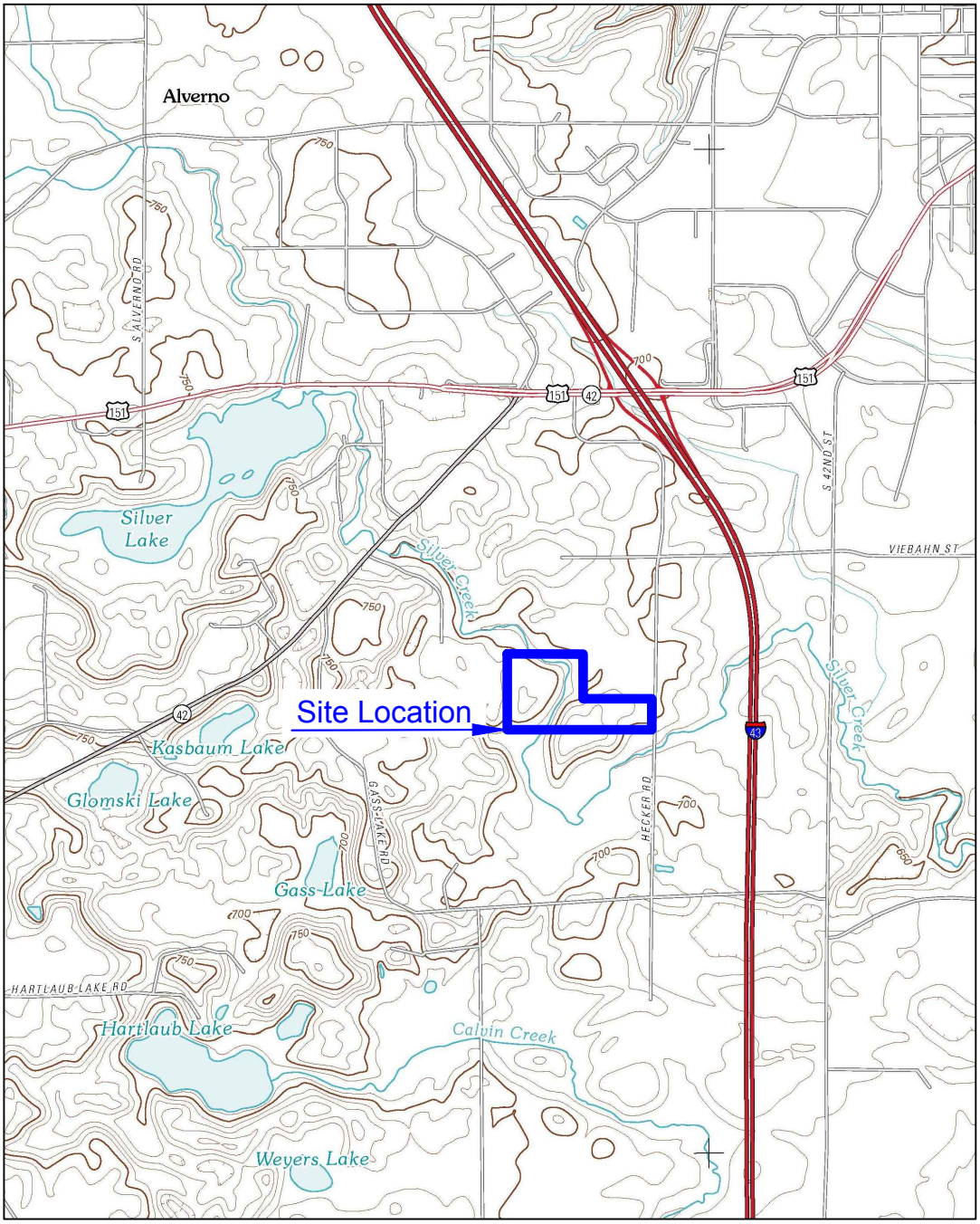
SUMMARY OF FIVE YEAR POTABLE WELL SAMPLING PLAN (UPDATED JUNE 2017)
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Map Color Code	Date of Previous Sampling Event	2017		2018		2019		2020		2021	
			May	October	May	October	May	October	May	October	May	October
Historically Sampled Wells												
5107 Veibahn St	▲	December 2013	Wells are typically up-gradient or side gradient - no additional sampling anticipated									
2925 Fricke Rd	▲	Feb 1993										
3107 Fricke Rd	▲	December 2013										
3610 Gass Lake Rd	▲	Feb 1993										
3609 M&M Ln	▲	December 2013										
3717 M&M Ln	▲	Feb 1993										
3840 M&M Ln	▲	Feb 1993										
3114 Hecker Rd	▲	May 2014										
2881 CTH CR	▲	Well Out of Service										
4314 Silver Creek Rd	▲	June 2014										
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										
5202 Silver Creek Rd	▲	December 2013										
3523 Orchard Ln	▲	May 2014										
Former Potable Wells Now Connected to City Water												
3617(3621) Viebahn St	○	March 2016	City Water Provided - No Potable Well Sampling Required									
3701 Viebahn St	○	Oct 2015										
3815 Viebahn St	○	Oct 2015										
4025 Viebahn St	○	Oct 2015										
4101 Viebahn St	○	Oct 2015										
2716 CTH CR (4141 Viebahn St)	○	Oct 2015										
2734(2804) CTH CR	○	Oct 2015										
2916 CTH CR	○	Oct 2015										
2917 CTH CR	○	Oct 2015										
		Wells Sampled per Event	~~24~~	26	12	29	13	29	15	30	15	42

Notes:
~~1~~ indicates sample has been collected and the sampling event is complete

Figures:

Figure 1; Site Location
Figure 2; May 2017 Potable Well Sampling Results



SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

Topographic Map courtesy of the United States Geological Survey

http://store.usgs.gov/b2c_usgs/usgs/maplocator/(ctype=areaDetails&xcm=r3standardpitrex_prd&carea=%24ROOT&layout=6_1_61_48&uiarea=2)/.do

Map Date: 2010

AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

FORMER NEWTON GRAVEL PIT

SITE LOCATION

Project Number:	Drawn By:	Date:	Figure No. 1
60311767	SAE	6/27/2017	

SPECIAL WELL CASING DEPTH AREA

FORMER NEWTON GRAVEL PIT

5107 Viebahn St.
• well depth - 189' (limestone)

2925 Fricke Rd.
• well depth - NA

Location #11 from 1993 sampling.
3107 Fricke Rd.
• well depth - 200 (limestone)

3107 Fricke Rd.
• well depth - 200' (limestone)

3114 Hecker Rd.
• well depth - 153' (limestone)

3121 Hecker Rd.
• well depth - NA

3303 Hecker Rd.
• well depth (historic well) - 143' (limestone)
• well depth (new well) - 303' (limestone)

3320 Hecker Rd.
• well depth - 138' (limestone)

3327 Hecker Rd.
• well depth - NA

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	2.38
Vinyl Chloride	< 0.19

3461 (3417) Hecker Rd.
• well depth - NA

Date:	5/31/17
Sample Location:	Inside Sink
cis-1,2-Dichloroethene	0.55 J
Vinyl Chloride	< 0.19

3518 Hecker Rd.
• well depth (historic well) - 50' (gravel)
• well depth (new well) - 282' (limestone)

3515 Hecker Rd.
• well depth (historic well)- 52' (gravel)
• well depth (new well) - 300' (limestone)

3609 Hecker Rd.
• well depth (historic well) - 69' (gravel)
• well depth (new well) - 300' (limestone)

3702 Hecker Rd.
• well depth - 160' (limestone/dolomite)

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	0.51 J
Vinyl Chloride	< 0.19

3625 Hecker Rd.
• well depth - 105' (gravel)

3720 Hecker Rd.
• well depth - NA

3627 Hecker Rd.
• well depth - NA

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3610 Gass Lake Rd.
located on west side of Gass Lake Rd. (not shown on figure)
• well depth - NA

3609 M&M Ln.
• well depth - 109' (gravel)

3717 M&M Ln.
• well depth - NA

3840 M&M Ln.
• well depth - 126' (gravel)

5202 Silver Creek Rd.
• well depth - NA

4808 Silver Creek Rd.
• well depth - 105' (gravel)

4620 Silver Creek Rd.
• house well depth - 160' (limestone/dolomite)

4752 Silver Creek Rd.
• well depth - 93' (gravel)

4609 Silver Creek Rd.
• well depth - 76' (gravel)

4025 Viebahn St. (City Water)
• abandoned well depth - 138' (limestone)

3825 Viebahn St.
• well depth - NA

4101 Viebahn St. (City Water)
• abandoned well depth - 131' (limestone???)

3815 Viebahn St. (City Water)
• abandoned well depth - 125' (gravel)

2706 CTH CR
• well depth - NA

4219 Viebahn St.
• well depth - NA

4141 Viebahn St. (City Water)
2717 CTH CR
• non-potable well depth - 146' (limestone)

3817 Viebahn St.
• well depth - 129' (gravel)

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	0.50 J
Vinyl Chloride	< 0.19

3621 Viebahn St.
3617 Viebahn St. (City Water)
• abandoned well depth - 166' (limestone)

2734 and 2804 CTH CR (City Water)
• abandoned well depth - 139' (gravel)

2716 CTH CR
• well depth - NA

3701 Viebahn St. (City Water)
• abandoned well depth - 147' (limestone)

2832 and 2904 CTH CR
• well depth - NA

2881 CTH CR. (Not In Use)
• well depth - NA

2911 CTH CR.
• well depth - NA

2916 CTH CR (City Water)
• abandoned well depth - 132' (limestone)

2917 CTH CR (City Water)
• abandoned well depth - 162' (limestone)

3027 Orchard Ln.
• well depth - NA

Date:	5/31/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	0.54 J
Vinyl Chloride	< 0.19

3023 CTH CR
• well depth (historic well) - 160' (limestone)
• well depth (new well) - 308' (limestone)

3120 CTH CR
• well depth (historic well - 51' (gravel?)
• well depth (new well) - 305' (limestone)

3128 Orchard Ln.
• well depth - 142' (limestone)

3224 CTH CR
• well depth - NA

3322 CTH CR
• well depth - NA

3312 CTH CR
• well depth - NA

3412 CTH CR
• well depth - NA

3403 CTH CR
• well depth (historic well) - 32' (gravel)
• well depth (new well) - 307' (limestone)

3318 Orchard Ln.
• well depth - NA

3422 CTH CR
• well depth - NA

3420 Orchard Ln.
• well depth - NA

3523 CTH CR
• well depth - 250' (limestone)

3504 CTH CR
• well depth (historic well) - 180' (limestone)
• well depth (new well) - 320' (limestone)

Date:	2/23/17
Sample Location:	Basement
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3533 CTH CR
• well depth - 40-50' (gravel)

4002 Thunder Ridge Rd.
• well depth (historic well) - 200' (limestone)
• well depth (new well) - 420' (limestone)

3523 Orchard Ln.
• well depth - NA

3524 Orchard Ln.
• well depth - NA

3618 CTH CR
• well depth - NA

Date:	5/30/17
Sample Location:	Kitchen Sink
cis-1,2-Dichloroethene	0.99 J
Vinyl Chloride	< 0.19

4010 Thunder Ridge Rd.
• well depth (historic well) - 200' (limestone)
• well depth (new well) - 400' (limestone)

Date:	5/31/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3921 Blackhawk Ct.
• well depth - 182' (limestone)

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	0.57 J
Vinyl Chloride	< 0.19

3611 CTH CR
• well depth - NA

3626 CTH CR
3626 CTH CR #B
• well depth - NA

3627 CTH CR
• well depth - NA

4005 Thunder Ridge Rd.
• well depth (historic depth) - NA
• well depth (new well) - 420' (limestone)

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3911 Blackhawk Ct.
• well depth - 180' (limestone)

Date:	5/31/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

Date:	5/30/17	5/30/2017 (DUP)
Sample Location:	Outside Spigot	Outside Spigot
cis-1,2-Dichloroethene	< 0.41	< 0.41
Vinyl Chloride	< 0.19	< 0.19

4101 Thunder Ridge Rd.
• well depth - 220' (limestone)

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	0.73 J
Vinyl Chloride	< 0.19

4027 Thunder Ridge Rd.
• well depth - 201' (limestone)

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	0.87 J
Vinyl Chloride	< 0.19

4314 Silver Creek Rd.
• well depth - NA

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3904 CTH CR
• well depth - 84' (gravel)

4111 Thunder Ridge Rd.
• well depth - 220' (limestone)

Date:	5/30/17
Sample Location:	Outside Spigot
cis-1,2-Dichloroethene	0.56 J
Vinyl Chloride	< 0.19

3780 Silver Creek Rd.
• well depth - NA

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

3812 Silver Creek Rd.
• well depth - NA

4127 Thunder Ridge Rd.
• well depth - 220' (limestone)

3902 Silver Creek Rd.
• well depth - 180' (limestone)

4236 Silver Creek Rd.
4220 Silver Creek Rd.
4212 Silver Creek Rd.
• well depth - NA

Date:	5/30/17
Sample Location:	Kitchen Sink
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

4315 Silver Creek Rd.
• well depth - 200' (limestone)

Date:	5/31/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

4004 Silver Creek Rd.
• well depth - NA

3802 Silver Creek Rd.
• well depth - 161' (Limestone)

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

4156 Silver Creek Rd.
• well depth - NA

4159 Silver Creek Rd.
• well depth - 181' (limestone)

Date:	5/30/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	0.52 J
Vinyl Chloride	< 0.19

3710 Silver Creek Rd.
• well depth - 190' (Limestone)

Date:	5/31/17
Sample Location:	Pressure Tank
cis-1,2-Dichloroethene	< 0.41
Vinyl Chloride	< 0.19

4024 CTH CR
• well depth - 168' (limestone)

4101 CTH CR
• well depth - NA

4125 CTH CR
• well depth - 105' (gravel)

Date:	5/31/17	5/31/17 (DUP)
Sample Location:	Pressure Tank	Pressure Tank
cis-1,2-Dichloroethene	< 0.41	< 0.41
Vinyl Chloride	< 0.19	< 0.19

LEGEND:

- PROPERTY BOUNDARY
- PROPERTY BOUNDARY - CITY LIMITS
- UTILITIES:
- w — -POTABLE WATER SUPPLY (from City of Manitowoc)

POTABLE WELL SAMPLE LOCATIONS
- -WITHIN TARGET ZONE
- -WITHIN TARGET ZONE WITH NO DETECTS
- -WITHIN SENTINEL ZONE-3 YEAR

POTABLE WELL SAMPLE LOCATIONS (CONTINUED)
- -WITHIN SENTINEL ZONE-5 YEAR
- -REPLACEMENT WELL WITHIN TARGET ZONE
- -UPGRADIENT AND HISTORICALLY SAMPLED WELLS
- -FORMER TARGET ZONE WELL, NOW ON CITY WATER
- -WELL OUT OF SERVICE

SAMPLING ZONES
- TARGET ZONE
- SENTINEL ZONE-3 YEAR
- SENTINEL ZONE-5 YEAR
- FORMER GRAVEL PIT ZONE

NOTES:

NA - NOT AVAILABLE

VOCs DETECTED FROM LIKELY LABORATORY OR SAMPLING CROSS-CONTAMINATION NOT REPORTED ON FIGURE.

VOC VALUES FOR MAY 2017 SAMPLING EVENT REPORTED ON FIGURE.

ANALYTICAL DATA PRESENTED IN MICROGRAMS PER LITER (UG/L)

N

0' 150' 300' 600'
SCALE

AECOM
Milwaukee Office
1555 RiverCenter Dr
Milwaukee, WI
414.944.6080

AECOM

FORMER NEWTON GRAVEL PIT

MAY 2017
POTABLE WELL SAMPLING RESULTS

Project Number: 60311767
Drawn By: SAE
Date: 6/27/2017

Figure No. 2

Attachment A:

Laboratory Reports

Synergy Environmental Lab, INC.

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 *09-Mar-17*

Project Name NEWTON PIT **Invoice #** E32536
Project #

Lab Code 5032536A
Sample ID 3504 CTH CR
Sample Matrix Water
Sample Date 2/23/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Total	12.9	mg/l	0.008	0.026	1	200.7		3/6/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		3/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		3/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		3/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		3/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		3/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		3/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		3/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		3/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		3/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		3/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		3/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		3/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		3/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		3/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		3/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		3/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		3/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		3/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		3/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		3/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		3/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		3/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		3/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		3/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		3/1/2017	CJR	1

Project Name NEWTON PIT **Invoice #** E32536
Project #

Lab Code 5032536A
Sample ID 3504 CTH CR
Sample Matrix Water
Sample Date 2/23/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		3/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		3/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		3/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		3/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		3/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		3/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		3/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		3/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		3/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		3/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		3/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		3/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		3/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		3/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		3/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		3/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		3/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		3/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		3/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		3/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		3/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		3/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		3/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		3/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		3/1/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		3/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		3/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		3/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		3/1/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		3/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	111	REC %			1	8260B		3/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		3/1/2017	CJR	1
SUR - Dibromofluoromethane	106	REC %			1	8260B		3/1/2017	CJR	1
Wet Chemistry										
General										
Hardness, Total Unfiltered	1380	mg/l	0.2	0.67	1	200.7		3/6/2017	CWT	1
Solids, Total Dissolved	2330	mg/l	20	20	1	2540c		3/2/2017	BLE	1

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

Code	*Comment*
1	Laboratory QC within limits.

BLE denotes sub contract lab - Certification #445023150

CWT denotes sub contract lab - Certification #445126660

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 RECORD

Synergy

Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 280

Page 1 of 1

Sample Handling Request
___ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #	
Account No. :	Quote No.:
Project #: Newton Pit	
Sampler: (signature) DSH	

Project (Name / Location): Newton Pit			
Reports To: Dave Henderson		Invoice To: Same	
Company AECOM		Company	
Address		Address	
City State Zip		City State Zip	
Phone		Phone	
FAX		FAX	

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
5032536A	3504 CTH CR	2/23	12:55		X	N	5	H2O	

Analysis Requested | **Other Analysis**

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 542.2)	VOC (EPA 8260)	8-RCRA METALS	Hardness	Iron (Fe)	TDS					PID/ FID
												X		X	X	X					

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

1-Sample, RAW H2O

Sample Integrity - To be completed by receiving lab.
Method of Shipment: SM
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
D.S. Henderson					

Received in Laboratory By: [signature] Time: 10:00 Date: 2/25/17

Synergy Environmental Lab, INC.

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 *05-Jun-17*

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995A
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	2.38	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995A
Sample ID 3327 HECKER RD
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	100	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995B
Sample ID 3921 BLACK HAW
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.57 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995B
Sample ID 3921 BLACK HAW
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	106	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	123	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	95	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995C
Sample ID 3802 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995C
Sample ID 3802 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995D
Sample ID 4220 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995D
Sample ID 4220 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995E
Sample ID 4027 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.87 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995E
Sample ID 4027 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	94	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995F
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.73 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995F
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995G
Sample ID 4314 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995G
Sample ID 4314 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995H
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.70 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995H
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	106	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995I
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.68 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995I
Sample ID 4101 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	88	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995J
Sample ID 4159 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.52 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995J
Sample ID 4159 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	129	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995K
Sample ID 3780 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995K
Sample ID 3780 SILVER CREE
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	106	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	105	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995L
Sample ID 3618 CTH CR
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	0.99 "J"	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995L
Sample ID 3618 CTH CR
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	94	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	88	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995M
Sample ID 3904 CTH CR
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995M
Sample ID 3904 CTH CR
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	114	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995N
Sample ID 3904 CTH CR DUP
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995N
Sample ID 3904 CTH CR DUP
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995O
Sample ID 3627 HECKER
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995O
Sample ID 3627 HECKER
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995P
Sample ID 3702 HECKER
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	0.51 "J"	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995P
Sample ID 3702 HECKER
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	112	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	106	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995Q
Sample ID 4111 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	0.56 "J"	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995Q
Sample ID 4111 THUNDER RI
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995R
Sample ID 3817 VIEBAHN
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	0.50 "J"	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32995
Project #

Lab Code 5032995R
Sample ID 3817 VIEBAHN
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		6/2/2017	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.

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 STODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 347[illegible]1

Page 1 of 2

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
_X_ Normal Turn Around

Lab I.D. #

Account No. : | **Quote No.:**

Project #:

Sampler: (signature) Sarah Day Sarah E Day

Project (Name / Location): NENTON GRAVEL PIT - MANITOWOC, WI

Reports To: DAVE HENDERSON	Invoice To: SEE LEFT
Company AECOM	Company
Address 1555 N. River Center Dr Ste 214	Address
City State Zip Milwaukee, WI 53212	City State Zip
Phone 414-944-6190	Phone
FAX 414-944-6081	FAX

Analysis Requested | **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
503299SA	3827 Hacker Road	5/30/17	0817		X	N	3	GW	HCl													X		
B	3921 Black Hawk	5/30/17	0845		X	N	3	GW	HCl													X		
C	3802 Silver Creek	5/30/17	0915		X	N	3	GW	HCl													X		
D	4220 Silver Creek	5/30/17	0930		X	N	3	GW	HCl													X		
E	4027 Thunder Ridge	5/30/17	1010		X	N	3	GW	HCl													X		
F	4101 Thunder Ridge	5/30/17	1040		X	N	3	GW	HCl													X		
G	4314 Silver Creek	5/30/17	1115		X	N	3	GW	HCl													X		
H	4101 Thunder Ridge	5/30/17	1040		X	N	3	GW	HCl													X		
I	4101 Thunder Ridge	5/30/17	1040		X	N	3	GW	HCl													X		
J	4159 Silver Creek	5/30/17	1155		X	N	3	GW	HCl													X		

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

ANALYSIS PER CONTRACT

Sample Integrity - To be completed by receiving lab.
Method of Shipment: UPS
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Sarah E Day	930	5/30/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 5/31/17

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 34[illegible]8

Page 2 of 2

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #
Account No. : **Quote No.:**
Project #:
Sampler: (signature) Sarah Day SarahEDay

Project (Name / Location): NEWTON GRAVEL PIT, MANITOWOC WI

Reports To: DAVE HENDERSON	Invoice To: SEE LEFT
Company AECOM	Company
Address 1555 N RIVERCENTER DR STE 219	Address
City State Zip MILWAUKEE WI 53212	City State Zip
Phone 414-944-6190	Phone
FAX 414-944-6081	FAX

Analysis Requested / **Other Analysis**

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
503795K	3780 Silver Creek	5/30/17	1330		X	N	3	GW	HCl													X		
L	3618 CTH CR	5/30/17	1445		X	N	3	GW	HCl													X		
M	3704 CTH CR	5/30/17	1510		X	N	3	GW	HCl													X		
N	3904 CTH CR-DUP	5/30/17	1510		X	N	3	GW	HCL													X		
O	3627 Hecker	5/30/17	1635		X	N	3	GW	HCL													X		
P	3702 Hecker	5/30/17	1650		X	N	3	GW	HCL													X		
Q	4111 Thunder Ridge	5/30/17	1720		X	N	3	GW	HCL													X		
R	3817 Viebahn	5/30/17	1820		X	N	3	GW	HCL													X		

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

ANALYSIS PER CONTRACT

Sample Integrity - To be completed by receiving lab.
Method of Shipment: C&C
Temp. of Temp. Blank ____ °C On Ice: Y
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
SarahEDay	1930	5/30/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 5/31/17

Synergy Environmental Lab, INC.

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 *05-Jun-17*

Project Name NEWTON GRAVEL PIT **Invoice #** E32994
Project #

Lab Code 5032994A
Sample ID 4005 THDR RAW
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Dissolved	5.24	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Iron, Total	9.83	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		5/31/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		5/31/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		5/31/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		5/31/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		5/31/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		5/31/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		5/31/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		5/31/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		5/31/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		5/31/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		5/31/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		5/31/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		5/31/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		5/31/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		5/31/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		5/31/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		5/31/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		5/31/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		5/31/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		5/31/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		5/31/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		5/31/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32994
Project #

Lab Code 5032994A
Sample ID 4005 THDR RAW
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		5/31/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		5/31/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		5/31/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		5/31/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		5/31/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		5/31/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		5/31/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		5/31/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		5/31/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		5/31/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		5/31/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		5/31/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		5/31/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		5/31/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		5/31/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		5/31/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		5/31/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		5/31/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		5/31/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		5/31/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		5/31/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		5/31/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		5/31/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		5/31/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		5/31/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		5/31/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		5/31/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		5/31/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		5/31/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		5/31/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		5/31/2017	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		5/31/2017	CJR	1
SUR - Toluene-d8	106	REC %			1	8260B		5/31/2017	CJR	1
Wet Chemistry										
General										
Hardness, Total Unfiltered	1873	mg/l	1.85	6.15	5	200.7		6/2/2017	CWT	1
Solids, Total Dissolved	2706	mg/l	20	20	1	2540c		6/2/2017	BLE	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32994
Project #

Lab Code 5032994B
Sample ID 4005 THDR TAP
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Total	6.98	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		5/31/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		5/31/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		5/31/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		5/31/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		5/31/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		5/31/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		5/31/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		5/31/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		5/31/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		5/31/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		5/31/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		5/31/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		5/31/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		5/31/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		5/31/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		5/31/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		5/31/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		5/31/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		5/31/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		5/31/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		5/31/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		5/31/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		5/31/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		5/31/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		5/31/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		5/31/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		5/31/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		5/31/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		5/31/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		5/31/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		5/31/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		5/31/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		5/31/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		5/31/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		5/31/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		5/31/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		5/31/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		5/31/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		5/31/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		5/31/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		5/31/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		5/31/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		5/31/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		5/31/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32994
Project #

Lab Code 5032994B
Sample ID 4005 THDR TAP
Sample Matrix Water
Sample Date 5/30/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		5/31/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		5/31/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		5/31/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		5/31/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		5/31/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		5/31/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		5/31/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		5/31/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	104	REC %			1	8260B		5/31/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		5/31/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		5/31/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		5/31/2017	CJR	1
Wet Chemistry										
General										
Hardness, Total Unfiltered	1573	mg/l	0.74	2.46	2	200.7		6/2/2017	CWT	1
Solids, Total Dissolved	2700	mg/l	20	20	1	2540c		6/2/2017	BLE	1

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

Code	*Comment*
1	Laboratory QC within limits.

BLE denotes sub contract lab - Certification #445023150

CWT denotes sub contract lab - Certification #445126660

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 RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 342?

Page 1 of 1

Sample Handling Request
X Rush Analysis Date Required EOD 6/2
(Rushes accepted only with prior authorization)
____ Normal Turn Around

Lab I.D. #
Account No. : **Quote No.:**
Project #:
Sampler: (signature) Sarah Day Sarah E Day
Project (Name / Location): NEWTON GRAVEL PIT, MANITOWOC WI

Reports To: DAVE HENDERSON	Invoice To: SEE LEFT
Company AECOM	Company
Address 555 N RIVER CENTER DR STE 214	Address
City State Zip MILWAUKEE WI 53212	City State Zip
Phone 414-944-6190	Phone
FAX 414-944-6081	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
503294A	4005 Thunder Ridge Raw Water	5/30/17	1610		X	Y/S-N (1-container)	6	GW	5-Y/1-N
B	4005 Thunder Ridge Tap Water	5/30/17	1615		X	N	5	GW	4-Y/1-N

Analysis Requested / **Other Analysis**

Lab I.D.	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	TDS	Dissolved Fe	Total Fe	Hardness	PID/FID
503294A													X		X	X	X	X	
B													X		X		X	X	

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

2 samples; Raw H_2O & Tap H_2O
ANALYSIS PER CONTRACT

Sample Integrity - To be completed by receiving lab.
Method of Shipment: GC
Temp. of Temp. Blank ____ °C On Ice: X
Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Sarah E Day	1930	5/30/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 5/31/17

Synergy Environmental Lab, INC.

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

DAVE HENDERSON
AECOM
1035 KEPLER DRIVE
GREEN BAY WI 54311

Report Date *05-Jun-17*

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014A
Sample ID 3027 ORCHARD
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	0.54 "J"	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014A
Sample ID 3027 ORCHARD
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014B
Sample ID 4315 SILVER CREE
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014B
Sample ID 4315 SILVER CREE
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014C
Sample ID 4125 CTH CR
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014C
Sample ID 4125 CTH CR
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	95	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014D
Sample ID 4125 CTH CR DUP
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014D
Sample ID 4125 CTH CR DUP
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	98	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014E
Sample ID 3417 HECKER
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	0.32 "J"	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	0.55 "J"	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014E
Sample ID 3417 HECKER
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	105	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	96	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	104	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014F
Sample ID 3710 SILVER CREE
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014F
Sample ID 3710 SILVER CREE
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	101	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014G
Sample ID 3911 BLACKHAWK
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/2/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/2/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/2/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/2/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/2/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/2/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/2/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/2/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/2/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/2/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/2/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/2/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/2/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/2/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/2/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/2/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/2/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/2/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/2/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/2/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/2/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/2/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/2/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/2/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/2/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/2/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/2/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/2/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/2/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/2/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/2/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/2/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/2/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/2/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/2/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/2/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/2/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/2/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/2/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/2/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/2/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/2/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/2/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/2/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E33014
Project #

Lab Code 5033014G
Sample ID 3911 BLACKHAWK
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/2/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/2/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/2/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/2/2017	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		6/2/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		6/2/2017	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		6/2/2017	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		6/2/2017	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.

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 RECORD

Synergy
Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 34[illegible]_1

Page 1 of 1

Sample Handling Request
____ Rush Analysis Date Required ____
(Rushes accepted only with prior authorization)
X Normal Turn Around

Lab I.D. #

Account No. : **Quote No.:**

Project #:

Sampler: (signature) Sarah Day Sarah E Day

Project (Name / Location): NEWTON GRAVEL PIT / MANITOWOC WI

Reports To: Dave Henderson	Invoice To: SEE LEFT
Company AECOM	Company
Address 1555 N River Center Dr Ste 214	Address
City State Zip Milwaukee WI 53212	City State Zip
Phone 944-6190 (414)	Phone
FAX 414-944-6081	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
605014 A	3027 Orchard	5/31/17	0815		X	N	3	GW	HCl													X		
B	4315 Silver Creek	5/31/17	1005		X	N	3	GW	HCl													X		
C	4125 CTH CR	5/31/17	1035		X	N	3	GW	HCl													X		
D	4125 CTH CR DUP	5/31/17	1035		X	N	3	GW	HCl													X		
E	3417 Hecker	5/31/17	1110		X	N	3	GW	HCl													X		
F	3710 Silver Creek	5/31/17	1110		X	N	3	GW	HCl													X		
G	3911 Black Hawk	5/31/17	1750		X	N	3	GW	HCl													X		

Analysis Requested | Other Analysis

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

ANALYSIS PER CONTRACT

Sample Integrity - To be completed by receiving lab.
Method of Shipment: SEL
Temp. of Temp. Blank ___ °C On Ice: Y
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
Sarah E Day	1945	5/31/17			

Received in Laboratory By: [signature] - SEL Time: 7:30 AM Date: 6-2-17

Synergy Environmental Lab, INC.

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 *05-Jun-17*

Project Name NEWTON GRAVEL PIT **Invoice #** E32999
Project #

Lab Code 5032999A
Sample ID 4010 THDR RAW
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Dissolved	8.72	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Iron, Total	9.77	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32999
Project #

Lab Code 5032999A
Sample ID 4010 THDR RAW
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		6/1/2017	CJR	1
Wet Chemistry										
General										
Hardness, Total Unfiltered	1588	mg/l	0.74	2.46	2	200.7		6/2/2017	CWT	1
Solids, Total Dissolved	2658	mg/l	20	20	1	2540c		6/2/2017	BLE	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32999
Project #

Lab Code 5032999B
Sample ID 4010 THDR TAP
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Inorganic										
Metals										
Iron, Total	3.96	mg/l	0.03	0.1	1	200.7		6/2/2017	CWT	1
Organic										
VOC's										
Benzene	< 0.17	ug/l	0.17	0.55	1	8260B		6/1/2017	CJR	1
Bromobenzene	< 0.43	ug/l	0.43	1.37	1	8260B		6/1/2017	CJR	1
Bromodichloromethane	< 0.31	ug/l	0.31	1	1	8260B		6/1/2017	CJR	1
Bromoform	< 0.49	ug/l	0.49	1.56	1	8260B		6/1/2017	CJR	1
tert-Butylbenzene	< 0.39	ug/l	0.39	1.23	1	8260B		6/1/2017	CJR	1
sec-Butylbenzene	< 0.24	ug/l	0.24	0.76	1	8260B		6/1/2017	CJR	1
n-Butylbenzene	< 0.34	ug/l	0.34	1.08	1	8260B		6/1/2017	CJR	1
Carbon Tetrachloride	< 0.21	ug/l	0.21	0.68	1	8260B		6/1/2017	CJR	1
Chlorobenzene	< 0.27	ug/l	0.27	0.86	1	8260B		6/1/2017	CJR	1
Chloroethane	< 0.5	ug/l	0.5	1.6	1	8260B		6/1/2017	CJR	1
Chloroform	< 0.96	ug/l	0.96	3.04	1	8260B		6/1/2017	CJR	1
Chloromethane	< 1.3	ug/l	1.3	4.15	1	8260B		6/1/2017	CJR	1
2-Chlorotoluene	< 0.36	ug/l	0.36	1.15	1	8260B		6/1/2017	CJR	1
4-Chlorotoluene	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1
1,2-Dibromo-3-chloropropane	< 1.88	ug/l	1.88	5.98	1	8260B		6/1/2017	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.44	1	8260B		6/1/2017	CJR	1
1,4-Dichlorobenzene	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,3-Dichlorobenzene	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,2-Dichlorobenzene	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Dichlorodifluoromethane	< 0.38	ug/l	0.38	1.2	1	8260B		6/1/2017	CJR	1
1,2-Dichloroethane	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethane	< 0.42	ug/l	0.42	1.34	1	8260B		6/1/2017	CJR	1
1,1-Dichloroethene	< 0.46	ug/l	0.46	1.47	1	8260B		6/1/2017	CJR	1
cis-1,2-Dichloroethene	< 0.41	ug/l	0.41	1.29	1	8260B		6/1/2017	CJR	1
trans-1,2-Dichloroethene	< 0.35	ug/l	0.35	1.12	1	8260B		6/1/2017	CJR	1
1,2-Dichloropropane	< 0.39	ug/l	0.39	1.24	1	8260B		6/1/2017	CJR	1
1,3-Dichloropropane	< 0.49	ug/l	0.49	1.55	1	8260B		6/1/2017	CJR	1
trans-1,3-Dichloropropene	< 0.42	ug/l	0.42	1.33	1	8260B		6/1/2017	CJR	1
cis-1,3-Dichloropropene	< 0.21	ug/l	0.21	0.65	1	8260B		6/1/2017	CJR	1
Di-isopropyl ether	< 0.26	ug/l	0.26	0.83	1	8260B		6/1/2017	CJR	1
EDB (1,2-Dibromoethane)	< 0.34	ug/l	0.34	1.09	1	8260B		6/1/2017	CJR	1
Ethylbenzene	< 0.2	ug/l	0.2	0.63	1	8260B		6/1/2017	CJR	1
Hexachlorobutadiene	< 1.47	ug/l	1.47	4.68	1	8260B		6/1/2017	CJR	1
Isopropylbenzene	< 0.29	ug/l	0.29	0.93	1	8260B		6/1/2017	CJR	1
p-Isopropyltoluene	< 0.28	ug/l	0.28	0.91	1	8260B		6/1/2017	CJR	1
Methylene chloride	< 0.94	ug/l	0.94	2.98	1	8260B		6/1/2017	CJR	1
Methyl tert-butyl ether (MTBE)	< 0.82	ug/l	0.82	2.6	1	8260B		6/1/2017	CJR	1
Naphthalene	< 2.17	ug/l	2.17	6.9	1	8260B		6/1/2017	CJR	1
n-Propylbenzene	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
1,1,2,2-Tetrachloroethane	< 0.69	ug/l	0.69	2.21	1	8260B		6/1/2017	CJR	1
1,1,1,2-Tetrachloroethane	< 0.47	ug/l	0.47	1.48	1	8260B		6/1/2017	CJR	1
Tetrachloroethene	< 0.48	ug/l	0.48	1.52	1	8260B		6/1/2017	CJR	1
Toluene	< 0.67	ug/l	0.67	2.13	1	8260B		6/1/2017	CJR	1
1,2,4-Trichlorobenzene	< 1.29	ug/l	1.29	4.1	1	8260B		6/1/2017	CJR	1
1,2,3-Trichlorobenzene	< 0.83	ug/l	0.83	2.63	1	8260B		6/1/2017	CJR	1
1,1,1-Trichloroethane	< 0.35	ug/l	0.35	1.11	1	8260B		6/1/2017	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E32999
Project #

Lab Code 5032999B
Sample ID 4010 THDR TAP
Sample Matrix Water
Sample Date 5/31/2017

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
1,1,2-Trichloroethane	< 0.65	ug/l	0.65	2.06	1	8260B		6/1/2017	CJR	1
Trichloroethene (TCE)	< 0.45	ug/l	0.45	1.43	1	8260B		6/1/2017	CJR	1
Trichlorofluoromethane	< 0.64	ug/l	0.64	2.04	1	8260B		6/1/2017	CJR	1
1,2,4-Trimethylbenzene	< 1.14	ug/l	1.14	3.63	1	8260B		6/1/2017	CJR	1
1,3,5-Trimethylbenzene	< 0.91	ug/l	0.91	2.9	1	8260B		6/1/2017	CJR	1
Vinyl Chloride	< 0.19	ug/l	0.19	0.62	1	8260B		6/1/2017	CJR	1
m&p-Xylene	< 1.56	ug/l	1.56	4.95	1	8260B		6/1/2017	CJR	1
o-Xylene	< 0.39	ug/l	0.39	1.25	1	8260B		6/1/2017	CJR	1
SUR - 1,2-Dichloroethane-d4	103	REC %			1	8260B		6/1/2017	CJR	1
SUR - 4-Bromofluorobenzene	98	REC %			1	8260B		6/1/2017	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		6/1/2017	CJR	1
SUR - Toluene-d8	104	REC %			1	8260B		6/1/2017	CJR	1
Wet Chemistry										
General										
Hardness, Total Unfiltered	1576	mg/l	0.74	2.46	2	200.7		6/2/2017	CWT	1
Solids, Total Dissolved	2652	mg/l	20	20	1	2540c		6/2/2017	BLE	1

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

Code	*Comment*
1	Laboratory QC within limits.

BLE denotes sub contract lab - Certification #445023150

CWT denotes sub contract lab - Certification #445126660

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 STODY RECORD

Synergy Environmental Lab, Inc.

1990 Prospect Ct. • Appleton, WI 54914
920-830-2455 • FAX 920-733-0631

Chain # Nº 341[illegible]3

Page 1 of 1

Sample Handling Request
X Rush Analysis Date Required EOD 6/2/17
(Rushes accepted only with prior authorization)
____ Normal Turn Around

Lab I.D. #

Account No. : | Quote No.:

Project #:

Sampler: (signature) Sarah Day SarahEDay

Project (Name / Location): NEWTON GRAVEL PIT MANITOWOC WI

Reports To: Dave Henderson	Invoice To: SEE LEFT
Company AECOM	Company
Address 1555 N River Center Dr Ste 204	Address
City State Zip Milwaukee WI 53212	City State Zip
Phone 414-944-6190	Phone
FAX 414-944-6081	FAX

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
503299ff	4010 Thunder Ridge - Raw water	5/31/17	1455		X	Y (Magnesium) N	6	GW	5-Y/1-N
B	4010 Thunder Ridge - Tap water	5/31/17	1440		X	N	5	GW	4-Y/1-N

Analysis Requested / Other Analysis

DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-RCRA METALS	TDS	Total Fe	Dissolved Fe	Hardness	PID/FID
												X		X	X	X	X	
												X		X	X		X	

Comments/Special Instructions (*Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

2 Samples; Raw H_2O & Tap H_2O

ANALYSIS PER CONTRACT

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Client
Temp. of Temp. Blank ___ °C On Ice: X
Cooler seal intact upon receipt: X Yes ___ No

Relinquished By: (sign)	Time	Date	Received By: (sign)	Time	Date
SarahEDay	1945	5/31/17			

Received in Laboratory By: [signature] Time: 8:00 Date: 6/1/17