AECOM
1555 N RiverCenter Dr, Suite 214
Milwaukee, Wisconsin 53212

414.944.6080 tel
414.944.6081 fax

April 20, 2015

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

Subject: 2015 Fourth Quarterly 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 2014 Fourth Quarterly Potable Well Monitoring Letter Report for wells in the vicinity of the Former Town of Newton Gravel Pit site (See Figure1). The report presents the potable well sampling results from the fourth quarterly sampling event February through March 2015.

Presented below are site background information, sampling methodology, well documentation research, the potable well monitoring result, and an update to the Potable Well Monitoring Work Plan.

BACKGROUND INFORMATION

Previous work and data on the potable well sampling can be found in the 2013-2014 Potable Well Monitoring Letter Report[1] and the 2014 First, Second, and Third Quarterly Potable Well Monitoring Letter Report[2][3][4].

The third quarterly potable well sampling event followed the sampling schedule presented in the Potable Well Sampling Plan update submitted to the WDNR with the 2014 Second Quarterly Potable Well Monitoring Letter Report. The Work Plan groups the potable wells into the following categories:

- Target Zone Wells – wells with detectable contaminants of concern (COCs) or wells bounded by impacted wells.
- Replacement Wells – wells that were replaced due to enforcement standard exceedances of the COCs.
- Sentinel Zone Wells – wells outside and adjacent to the Target Zone that do not have detectable COCs.
- Data Gap Wells – wells not previously sampled.
- 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.

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[1] 2013-2014 Potable Well Monitoring Letter Report Former Town of Newton Gravel Pit, BRRTS No. 02-36-000268, AECOM Project No: 60135471(82518), August 15, 2014.
[2] 2014 First Quarterly Potable Well Monitoring Letter Report, Former Newton Gravel Pit, BRRTS No. 02-36-000268, AECOM Project No: 60135471(82518), November 28, 2014.
[3] 2014 Second Quarterly Potable Well Monitoring Letter Report, Former Newton Gravel Pit, BRRTS No. 02-36-000268, AECOM Project No: 60135471 (82518), December 2, 2014
[4] 2014 Third Quarterly Potable Well Monitoring Letter Report, Former Newton Gravel Pit, BRRTS No. 02-36-000268, AECOM Project No: 60135471 (82518), March 27, 2015

Based on the first, second, and third quarter sampling results one Data Gap well remains on the list:

Fourth Quarter Data Gap Wells
3911 Blackhawk Court

The fourth quarterly sampling started on February 23, 2015 and ended on March 11, 2015. In total 31 well locations were proposed in the Work Plan to be sampled. During the sampling event a total of 29 well locations were sampled. Details of the sampling event are as follows.

On February 23 and 24, 2015 a total of 26 samples were collected from the target zone and replacement wells:

February 23 and 24, 2015 Sampling Addresses	
3617 (3621) Viebahn Street	2717 CTH CR (4141 Viebahn Street)
3701 Viebahn Street	2734 (2804) CTH CR
3815 Viebahn Street	3023 CTH CR (Replacement)
3817 Viebahn Street	3120 CTH CR (Replacement)
3825 Viebahn Street	3403 CTH CR
4025 Viebahn Street	3504 CTH CR
4101 Viebahn Street	3618 CTH CR
3303 Hecker Road	4005 Thunder Ridge Road
3327 Hecker Road	4010 Thunder Ridge Road
3461 (3417) Hecker Road	4027 Thunder Ridge Road
3515 Hecker Road (Replacement)	4111 Thunder Ridge Road
3518 Hecker Road (Replacement)	3921 Blackhawk Court
3609 Hecker Road (Replacement)	4159 Silver Creek Road

On March 11, 2015 a total of three additional wells were sampled:

March 11, 2015 Sampling Addresses	
2916 CTH CR	4101 Thunder Ridge Road
3027 Orchard Lane	

Three proposed wells, 3702 Hecker Road, 3911 Blackhawk Court, and 4002 Thunder Ridge Road, were not sampled during the fourth quarterly sampling event. The water was shut off at 3702 Hecker Road and the property owners were not home while residents at 3911 Blackhawk Court and 4002 Thunder Ridge Road did not respond to phone calls by the City to set up sampling appointments.

SAMPLING METHODOLOGY

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.

Prior to the collection of samples, field screening was conducted with a handheld YSI 556MPS water quality meter to obtain pH, conductivity, temperature, and oxidation/reduction (redox) potential measurements. The measurements were collected by running the tap water into a clean glass bottle until the readings stabilize then the readings were recorded on a sample collection form. Whenever possible, each system was purged for at least 10 minutes immediately prior to sampling.

Samples for volatile organic compound (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.

WELL DOCUMENTATION

During the well sampling period AECOM made efforts to research the depth of the new potable wells being sampled. This included interviewing the well owners, research on the Wisconsin Department of Agriculture Trade and Consumer Protection (DATCP) Well Constructor's Reports web site[5] for historical well construction reports (WCRs) through 1989, and searching the WDNR's online Drinking Water Data Retrieval System[6] for WCRs since 1987.

The main goal of the data search was to determine the installed depth of the potable wells to assist in the interpretation of the groundwater impacts. Unfortunately, the overall lack of WCRs for many addresses currently limits the use of the data. This data collection effort will be continued in the future to improve the data set.

New well construction information along with historical information and address specific sampling information is presented on Table 1, *Summary of Potable Well Information.* No additional well logs were found during the fourth quarter sampling event.

DATCP provides the following qualification of the historical WCRs provided on its web site:

> "DATCP has created an interactive web map for accessing historic (1936 - 1989) well construction reports (WCRs) that were obtained from the Wisconsin Geological and Natural History Survey (WGNHS). Wells were mapped to the centroid of either a section, quarter section, or quarter-quarter section as recorded on the original WCR. These locations have not been field verified, and errors are very common. The average success rate for finding a specific WCR for a specific well is only 50%. Electronic copies of the well construction

[5] Wisconsin Department of Agriculture Trade and Consumer Protection (DATCP) Well Constructor's Reports web site, at: http://datcpgis.wi.gov/WellLogs/
[6] Wisconsin Department of Natural Resources – Wisconsin DNR Drinking Water Data, at: http://prodoasext.dnr.wi.gov/inter1/watr$.startup

reports were converted to PDF format for easier web viewing. See the **WGNHS site** for more information regarding Well Records, or contact WGNHS staff at **geodata@wgnhs.uwex.edu**.

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) does not guarantee the accuracy, completeness or legality of data provided by other sources. No warranty, expressed or implied is made regarding the accuracy or utility of this data. See **DATCP Legal Notice** for more information."

MONITORING RESULTS

The results for the fourth quarterly potable well sampling event, February 23 through March 11, 2015, are discussed below. During this sample period AECOM obtained a total of 29 water samples (not including quality control samples). With no new wells sampled during the fourth quarter, no confirmation samples were collected.

The wells at 3702 Hecker Road, 3911 Blackhawk Court, and 4002 Thunder Ridge Road were not sampled.

A summary of the sampled wells with detected laboratory analytical results is presented on Table 2 and on Figure 2. Table 3 provides a summary of wells sampled with all laboratory analytical results. The laboratory analytical reports are provided in Attachment B.

Field Screening Results

Field screening measurements for pH, temperature, conductivity, dissolved oxygen, and oxidation reduction potential provide general indications of water quality. Field screening data are summarized in Table 3.

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

Potable Wells with NR 140 COC ES Exceedences:
There were a total of six potable wells with vinyl chloride ES exceedance's. They are:

ES Exceedances of Vinyl Chloride	
2717 CTH CR (4141 Viebahn St.)	3815 Viebahn Street
2734 (2804) CTH CR	4025 Viebahn Street
3701 Viebahn Street	4101 Viebahn Street

Potable Wells with NR 140 COC PAL Exceedences:
There were a total of three potable wells with vinyl chloride PAL exceedance's. They are:

Pal Exceedances of Vinyl Chloride	
3617 (3621) Viebahn Street	3504 CTH CR
2916 CTH CR	

There were no wells that had a COC PAL exceedances of cis-1,2-dichloroethene.

Detected COCs with No Regulatory Exceedences:
There were a total of 16 wells that only had a single COC (cis-1,2-dichloroethene) below regulatory limits.

Cis-1,2-dichloroethene Detects	
3327 Hecker Road	4010 Thunder Ridge Road
3461 (3417) Hecker Road	4027 Thunder Ridge Road
4159 Silver Creek Road	4101 Thunder Ridge Road
2717 CTH CR (4141 Viebahn Street)	3617 (3621) Viebahn Street
2734 (2804) CTH CR	3701 Viebahn Street
2916 CTH CR	3815 Viebahn Street
3504 CTH CR	4025 Viebahn Street
3618 CTH CR	4101 Viebahn Street
4005 Thunder Ridge Road	3921 Black Hawk Court

A summary of the sampled wells with detectable COC laboratory results is presented on Table 2 and on Figure 2. Table 3 provides a summary of sampled wells with all laboratory results. The laboratory analytical reports are provided in Attachment B.

Observed Changes in Analytical Results since the Last Monitoring Event:
The following changes were noted in the analytical results:

- The following wells had a change in vinyl chloride from a ES exceedance to a PAL exceedance:
  - 3617 (3621) Viebahn Street
  - 2916 CTH CR

- The following well had a change in cis-1,2-dichloroethene from above the MDL but below the PAL to a non-detect below the MDL.
  - 3817 Viebahn Street

- The following well had a change in cis-1,2-dichloroethene from a non-detect below the MDL to above the MDL but below the PAL
  - 4005 Thunder Ridge Road

POTABLE WELL MONITORING WORK PLAN

This sampling event concludes the Quarterly Potable Well Sampling at the Former Newton Gravel Pit. A work plan will be submitted later this year to continue potable well monitoring at the Former Newton Gravel Pit.

SUMMARY

The following is a summary of the impacted wells sampled during the February 2015 through March 2015 potable well water monitoring period.

Analytical results from potable well water samples indicate NR 140 ES standard exceedences for the following six wells:

- 2717 CTH CR (4141 Viebahn St.)
- 2734 (2804) CTH CR
- 3701 Viebahn Street
- 3815 Viebahn Street
- 4025 Viebahn Street
- 4101 Viebahn Street

Analytical results from potable well water samples indicate NR 140 PAL standard exceedances for the following three wells:

- 3617 (3621) Viebahn Street
- 2916 CTH CR
- 3504 CTH CR

Analytical results from 16 potable well water samples indicate contaminants of concern below regulatory limits:

- 3327 Hecker Road
- 3461(3417) Hecker Road
- 4159 Silver Creek Road
- 2717 CTH CR (4141 Viebahn Street)
- 2734 (2804) CTH CR
- 2916 CTH CR
- 3504 CTH CR
- 3618 CTH CR
- 4005 Thunder Ridge Road
- 4010 Thunder Ridge Road
- 4027 Thunder Ridge Road
- 4101 Thunder Ridge Road
- 3617 (3621) Viebahn Street
- 3701 Viebahn Street
- 3815 Viebahn Street
- 4025 Viebahn Street
- 4101 Viebahn Street
- 3921 Blackhawk Court

Three proposed wells, 3702 Hecker Road, 3911 Blackhawk Court, 4002 Thunder Ridge Road fourth quarterly sampling event were not sampled. The water was shut off at 3702 Hecker Road and the property owners were not home while the residents at 3911 Blackhawk Court and 4002 Thunder Ridge Road did not respond to phone calls by the City to set up sampling appointments.

The only Data Gap well that has not be sampled during the quarterly sampling events is at 3911 Blackhawk Court.

The fourth quarter concludes the Quarterly Potable Well Sampling at the Former Newton Gravel Pit. A work plan will be submitted later this year to continue potable well monitoring at the Former Newton Gravel Pit.

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.

Jordan Junion
Project Scientist
Jordan.junion@aecom.com

David Henderson
Senior Project Manager
dave.henderson@aecom.com

Cc: Kathleen M. McDaniel, City Attorney, City of Manitowoc
Dan Koski, Director of Public Infrastructure, City of Manitowoc

Attachments: Tables, Figures, Attachment A: Laboratory Reports

AECOM

Tables:

TABLE 1
SUMMARY OF POTABLE WELL INFORMATION

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SUMMARY OF POTABLE WELL INFORMATION
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Sampling Events 1993[1]	2008[2]	2013-14[3]	Well Depth (ft. BGS)	Casing Depth (ft. BGS)	Well Draws From	Well/Casing Depth Reference	Well and 2013/2014 Sample Description
3114 Hecker Rd.	---	---	10/22/13 11/8/13 5/28/14	153	149	Limestone	Well Const. Rpt., dated 4/30/12.	10/22/13 and 11/8/13 - Sampled from spigot on north side of house.
3121 Hecker Rd.	2	---	10/22/13 11/7/13 5/28/14	NA	NA	NA	No well const. rpt. identified for this property. Owner reports that well possibly installed by Sieracki Well Drilling.	10/22/13 and 11/7/13 - Sampled in basement, directly from well.
3303 Hecker Rd.	3	---	10/23/13 11/7/13 6/3/14 11/17/14 2/23/15	143	120	Limestone	Well Const. Rpt., dated 4/14/87.	10/23/13 and 11/7/13 - Sampled from basement spigot through garden hose.
3320 Hecker Rd.	4, 5	---	10/22/13 11/7/13 5/28/14	138	115	Limestone	Well Const. Rpt., dated 5/8/01.	10/22/13 - Sampled from spigot nearest well. 11/7/13 - Sampled from spigot on east side of outbuilding near diesel fuel AST.
3327 Hecker Rd.	---	---	10/23/13 11/7/13 5/28/14 8/25/14 11/10/14 2/23/15	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	10/23/13 and 11/7/13 - Sampled from west spigot. 2/23/15 sampled off of kitchen sink hard water line.
3461(3417) Hecker Rd.	---	---	10/24/13 11/12/13 5/30/14 8/26/14 11/10/14 2/24/15	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	10/24/13 and 11/12/13 - Sampled from indoor sink faucet.
3515 Hecker Rd.	---	---	10/22/13 11/7/13 11/22/13 5/28/14 8/28/14	52	52	Gravel	Well Const. Rpt., dated 2/14/79.	Well located to NW corner of house. 10/22/13 - Sampled from front spigot. 11/7/13 - Samples from west spigot and indoor kitchen faucet. 11/22/13 - Sampled from west spigot.
	---	---	9/29/14 11/4/14 2/23/15	300	277	Limestone	Well Const. Rpt., dated 9/2/14.	Well is located to NW corner of house. Sampled from west spigot. 2/23/15 sampled off of pressure tank.
3518 Hecker Rd.	---	---	10/23/13 11/7/13	120	NA	Sandy Clay with Sand Seams	Well abandonment Rpt., indicating this well abandoned on 12/10/13.	Well located to SE corner of house. 10/23/13 - Sampled from south spigot near well. 11/7/13 - Sampled from south spigot near well and indoor kitchen faucet. Well abandoned based on abandonment form dated 3/18/14.
	---	---	3/11/14 3/31/14 4/22/14 5/29/14 8/25/14 11/10/14 2/23/15	282	250	Limestone	Well Const. Rpt., dated 3/6/14.	3/11/14 - Sampled from outdoor spigot on east side of house. 3/31/14 and 4/22/14 - Sampled from newly installed outdoor spigot on south side of house. 2/23/15 sampled from pressure tank.
3609 Hecker Rd.	---	---	10/22/13 11/7/13 11/22/13 5/28/14 7/11/14 8/25/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	10/22/13 - Sampled from only spigot on house. 11/7/13 - Samples from east spigot and kitchen faucet. 11/22/13 - Sampled from SE spigot.
	---	---	9/29/14 11/4/14 2/24/15	300	290	Limestone	Well Const. Rpt., dated 9/2/14.	Well is located southwest of house. Sampled from east spigot.
3625 Hecker Rd.	---	---	10/22/13 11/7/13 5/28/14	105	105	NA	Well Const. Rpt., dated 6/14/89.	10/22/13 and 11/7/13 - Sampled from south spigot on house.
3627 Hecker Rd.	---	---	10/23/13 11/7/13 5/29/14	NA	NA	Gravel	No well const. rpt. identified for this property.	10/23/13 and 11/7/13 - Sampled from south spigot.
3702 Hecker Rd.	---	---	10/22/13 11/12/13 6/3/14 8/25/14 11/13/14	160	144	Gravel	Well Const. Rpt., dated 7/13/05.	10/22/13 and 11/12/13 - Sampled from south spigot.
3720 Hecker Rd.	---	---	10/22/13 11/12/13 6/2/14	NA	NA	NA	No well const. rpt. identified for this property.	10/22/13 and 11/12/13 - Sampled from front spigot.
3812 Silver Creek Rd.	---	---	5/28/14	NA	NA	NA	No well const. rpt. identified for this property.	Well is located northeast corner of the house. Sampled from outside spigot on north side of house.
3902 Sivler Creek Rd.	---	---	11/18/14	180	160	Limestone	Well Const. Rpt., dated 8/9/06. TL919	Well is located east of the house. Sampled off pressure tank in basement.
4004 Silver Creek Rd.	---	---	11/18/14	NA	NA	NA	No well Const. Rpt identified for this property.	Well is located north of building. Sampled off of pressure tank.
4156 Silver Creek Rd.	---	---	5/28/14	60	NA	NA	No well const. rpt. Identified for this property. Interview with homeowner stated well is 60 feet deep	Well is located east of the deck. Collected sample from spigot on east side of the house.
4159 Silver Creek Rd.	---	---	12/12/13 1/6/14 6/4/14 9/8/14 11/10/14 2/23/15	181	172	Limestone	Well Const. Rpt., dated 1/2/09.	Well located to northwest corner of property. 12/12/13 and 1/6/14 - Sampled from pressure tank spigot.
4212/4220/5236 Silver Creek Rd.	---	---	5/30/14	NA	NA	NA	No well const. rpt. Identified for this property. Owner had no information.	Well is shared with the three properties. Well is located between 4220 and 4212. Sampled from 4220 kitchen sink
4314 Silver Creek Rd.	---	---	12/5/13 6/4/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located to south of house. 12/5/13 - Sampled from pump spicket in basement.
4315 Silver Creek Rd.	---	---	12/12/13 6/2/14	200	NA	Limestone	No well const. rpt. identified for this property. Owner had no information.	Well located to southwest corner of house. 12/12/13 - Sampled from pressure tank spigot in basement.
4609 Silver Creek Rd.	---	---	12/3/13 6/3/14	76	76	Gravel	Well Const. Rpt., dated 8/13/49.	12/3/13 - Sampled by WDNR, Sampled from pressure tank spigot.
4620 Silver Creek Rd.	---	---	11/8/13 11/12/13 5/28/14	160	139	Limestone/ Dolomite	Well Const. Rpt., dated 4/29/05.	11/8/13 - House well, Sampled from spicket on east side of house. 11/12/13 - Sampled from second well in barn, spigot in barn. 5/28/14 sampled from barn and house.

TABLE 1
SUMMARY OF POTABLE WELL INFORMATION
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Sampling Events 1993[1]	2008[2]	2013-14[3]	Well Depth (ft. BGS)	Casing Depth (ft. BGS)	Well Draws From	Well/Casing Depth Reference	Well and 2013/2014 Sample Description
4752 Silver Creek Rd.	---	---	12/5/13 6/2/14	93	93	Gravel	Well Const. Rpt., dated 11/15/78.	Well located at south side of house. 12/5/13 - Sampled from kitchen sink.
4808 Silver Creek Rd.	---	---	12/5/13 5/30/14	105	105	Gravel	Well Const. Rpt., dated 12/15/98.	Well located at NW corner of house. 12/5/13 - Sampled from spicket by pump.
5202 Silver Creek Rd.	---	X	1/9/08	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well location not provided. 12/5/13 - Sampled from pressure tank in barn.
2706 CTH CR	NA	NA	8/26/14	NA	NA	NA	No well const. rpt. Identified for this property.	Well is located east of the house. Collected sample on the north spigot.
2716 CTH CR	NA	NA	9/8/14 11/18/14	NA	NA	NA	No well const. rpt. Identified for this property.	Well is located west of garage. Collected sample off of pressure tank in garage.
2717 CTH CR 4141 Viebahn	NA	NA	8/25/14 9/8/14 11/10/14 2/23/15	146	132	Limestone	Well Const. Rpt., dated 4/2/91	Well is located north of residential garage. Collected sample off of pressure tank.
2734/2804 CTH CR	---	---	6/3/14 8/25/14 11/10/14 11/25/14 2/24/15	139	137	Gravel	Well Const. Rpt., dated 11/01/90. DE552	Well is located between the two buildings. Sampled from spigot in recycling facilities garage. 2/24/15 sampled off of pressure tank in the garage.
2832 (2904) CTH CR	---	---	2/4/14 6/3/14	NA	NA	NA	No well const. rpt. identified for this property. Owner believes well is 100 feet deep based on interview on 2/4/2014.	Both properties are on the same well. 2832 was a former hotel with several buildings. Well is located in the northern most building. Sampled from kitchen sink in third hotel building.
2911 CTH CR	---	---	5/29/14	NA	NA	NA	No well const. rprt. Identified for this property. Owner had no information.	Well is located in basement on the east side of the house. Sampled off pressure tank.
2916 CTH CR	---	---	2/4/14 5/28/14 8/25/14 11/10/14 11/25/14 3/11/15	132	131	Limestone	Well Const. Rpt., dated 5/23/00.	Well is located W of building. Sampled from pressure tank spigot.
2917 CTH CR	---	---	2/4/14 5/30/14	162	137	Limestone	Well Const. Rpt., dated 4/13/94.	Well is located E of building. Sampled from kitchen sink.
3023 CTH CR	---	---	2/4/14 6/2/14 8/25/14	160	NA	Limestone	Well Const. Rpt., undated. Based on depth, assume draws from limestone.	Well is located E of building. Sampled from outside spigot.
	---	---	10/8/14 11/4/14 2/24/15	308	275	Limestone	Well Const. Rpt., dated 9/9/14.	Well is located E of building. Sampled from outside spigot.
3120 CTH CR	---	---	1/3/14 2/4/14 5/28/14 8/25/14	51	NA	Gravel?	Updated based on Well Abandonment Form, date 10/21/14	Well located at SW corner of house. 1/3/14 and 2/4/14 - Sampled from pressure tank spigot.
	---	---	10/8/14 11/4/14	305	279	Limestone	Well Const. Rpt., dated 9/9/14.	Well is located at SW corner of the house. Sampled from pressure tank.
3224 CTH CR	---	---	2/4/14 6/4/14 8/25/14 11/17/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Pump is located in pumproom in the west side of the basement. Sampled from pressure tank spigot.
3312 CTH CR	---	---	2/26/14 6/2/14 8/26/14 11/10/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Sampled by James Blaha, Health Officer for Manitowoc Co. Sampled from bath tub.
3322 CTH CR	---	---	1/6/14 6/4/14 8/25/14 11/10/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located at south side of house. 1/6/14 - Sampled from kitchen sink.
3403 CTH CR	---	---	1/3/14 2/5/14 5/28/14 8/25/14	32	NA	Gravel	Well Const. Rpt., dated 10/25/38, indicates pump depth at 32' in gravel. Owner estimated 28' per interview on 1/3/14.	Well located in white shed north of house. 1/3/14 and 2/5/14 - Sampled from kitchen sink.
	---	---	10/21/14 11/4/14 2/23/15	307	275	Limestone	Well Const. Rpt., dated 10/15/14.	Well is located northeast of house. Sampled out of kitchen sink.
3412 CTH CR	---	---	1/3/14 8/26/14 11/10/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located at SW corner of house. 1/3/14 - Sampled from pressure tank spigot.
3422 CTH CR	---	---	1/6/14 5/30/14 8/25/14 11/18/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located 15' south of house. 1/6/14 - Sampled from pressure tank spigot.
3504 CTH CR	---	---	12/5/13 1/6/14 2/5/14 5/30/14 8/25/14 11/18/14 2/23/15	180	172	Hardpan	Well Const. Rpt., dated 9/3/99.	Well is located to NE of building. 12/5/13 - Sampled from spicket on north side of building. 1/6/14 and 2/5/14 - Sampled from pressure tank spigot in basement.
3523 CTH CR	---	---	1/3/14 6/3/14	250	NA	Limestone	No well const. rpt. identified for this property. Well is ~250' and constructed ~1960s, per owner interview on 1/3/14. Based on depth, assume draws from	Well located to west of house. 1/3/14 - Sampled from basement sink.
3533 CTH CR	---	---	1/6/14 6/3/14	40-50	NA	Gravel	Well Const. Rpt. not available. Owner estimated 40-50' per interview on 1/6/14. Based on depth, assume well draws from gravel.	Well located south of garage. 1/6/14 - Sampled from basement sink.
3611 CTH CR	---	---	5/30/14	~14	NA	NA	No well const. rpt. identified for this property. Owner believes well is 14 feet deep, sandpoint well	Sampled from spigot on east side of house. Well is located on the northeast corner of the house.
3618 CTH CR	---	---	1/3/14 5/29/14 8/25/14 11/10/14 2/23/15	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located 100' west of house. 1/3/14 - Sampled from kitchen sink.
3626 CTH CR and 3626 CTH CR #B	---	---	12/5/13 5/30/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well serves two adjacent business/parcels, Well located to NW of Nelson Truck business buildings. 12/5/13 - Sampled from auto shop bathroom sink, after pressure tank.

TABLE 1
SUMMARY OF POTABLE WELL INFORMATION
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	Sampling Events 1993[1]	2008[2]	2013-14[3]	Well Depth (ft. BGS)	Casing Depth (ft. BGS)	Well Draws From	Well/Casing Depth Reference	Well and 2013/2014 Sample Description
3627 CTH CR	---	---	12/5/13 5/29/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well located to SE of building. 12/5/13 - Sampled from basement sink, after pressure tank.
3904 CTH CR	---	---	12/5/13 5/28/14	84	84	Gravel	Well Const. Rpt., dated 2/17/95.	Well located to east of house. 12/5/13 - Sampled from pressure tank in basement.
4024 CTH CR	---	---	12/12/13 5/28/14	168	160	Limestone	Well Const. Rpt., dated 11/10/06.	Well located to southwest corner of house. 12/12/13 - Sampled from spigot in barn.
4101 CTH CR	---	---	5/29/14	NA	NA	NA	No well const. rpt. identified for this property.	Well is located south of house. Sampled from pressure tank.
4002 Thunder Ridge Rd.	---	---	1/3/14 8/25/14	200	181	Limestone	Well Const. Rpt., dated 10/21/03.	Well located in basement of house. 1/3/14 - Sampled from pressure tank spigot in basement.
4005 Thunder Ridge Rd.	---	---	5/29/14 8/26/14 11/11/14 2/23/15	NA	NA	NA	No well const. rpt. identified for this property.	Well is located on south side of house. Sample from south spigot, nearest well.
4010 Thunder Ridge Rd.	---	---	5/28/14 8/26/14 2/24/15	200	176	Limestone	Well Const. Rpt., dated 4/24/03.	Sampled off of south spigot. 2/24/15 sampled out of pressure tank in basement.
4027 Thunder Ridge Rd.	---	---	5/29/14 8/26/14 11/11/14 2/24/15	201	181	Limestone	Well Const. Rpt., dated 6/27/07.	Sampled off of east spigot in backyard.
4101 Thunder Ridge Rd.	---	---	8/26/14 11/17/14 3/11/15	NA	NA	NA	No well const. rpt. Identified for this property	Well is located on the east side of the house. Collected sample off spigot on west side of house
4111 Thunder Ridge Rd.	---	---	8/25/14 11/17/14	220	197	Limestone	Well Const. Rpt., dated 9/23/03.	Well is locataed on northeast corner of house. Sampled from spigot on northeast corner of house.
4127 Thunder Ridge Rd.	---	---	12/5/13 5/29/14	220	194	Limestone	Well Const. Rpt., dated 9/22/03.	Well located east of house. 12/5/13 - Sampled from east spicket.
2925 Fricke Dr.	12	---	---	NA	NA	NA	No well const. rpt. identified for this	NA
3107 Fricke Dr.	---	---	12/5/13	200	NA	Limestone	Owner stated well is ~200' and constructed ~2003 per interview on 12/5/13. Based on depth, assume well draws from limestone.	Well located 10' south of building. 12/5/13 - Sampled from indoor well pump.
	10	---	---	115	115	Gravel	Well Const. Rpt. for non-potable well, dated 4/17/80.	Well located inside building. Not used during winter.
	11	---	---	NA	NA	NA	No well const. rpt. identified for this property.	This well is/was located near former house trailer on north side of Fricke property (3107 Fricke Dr.).
3617 Viebahn St.	---	---	11/7/14 11/19/14 2/24/15	166	158	Limestone	Possible well log, Well Const. Rpt. Dated 6/7/62, for property at So. 35th & Veibohn (sic) - Owner John Hruby	Sampled off of pressure tank in basement.
3701 Viebahn St.	---	---	10/29/14 11/7/14 2/23/15	147	143	Limestone	Well Const. Rpt. Dated 11/8/72.	Sampled off of pressure tank.
3815 Viebahn St.	---	---	11/7/14 11/19/14 2/23/15	125	NA	Gravel	Well depth located on pressure tank.	Sampled off of pressure tank in basement.
3817 Viebahn St.	---	---	10/29/14 11/7/14 2/24/15	129	129	Gravel	Well Const. Rpt. Dated 1964.	Sampled off of spigot on the SE side of the house. 2/24/15 Sampled off of pressure tank in basement, hose was attached
3825 Viebahn St.	---	---	10/29/14 11/7/14 2/23/15	NA	NA	NA	No well Const. Rpt identified for this property.	Sampled off of south spigot. 2/23/15 saampled off of pressure tank.
4025 Viebahn St.	---	---	10/29/14 11/7/14 2/24/15	138	134	Limestone	Well Const. Rpt., Dated 11/29/66.	Sampled off of pressure tank in basement. Well is located on NE of the house.
4101 Viebahn St.	---	---	10/29/14 11/7/14 2/24/15	NA	NA	NA	No well const. rpt. Identified for this property	Well is lcoated west of the house. Sampled off of pressure tank in basement.
4219 Viebahn St.	---	---	9/8/14	NA	NA	NA	No well const. rpt. identified for this property.	Sampled from south spigot. Well is located east of the property
5107 Viebahn St.	1	---	12/5/13	189	184	Limestone	Well Const. Rpt., dated 8/24/72.	12/5/13 - Sampled from kitchen sink.
3609 M&M Ln.	6	---	12/4/13 12/16/13	109	NA	Gravel	Measured 1998, installed 1973, per sticker on pump. Based on depth, assume well draws from gravel.	12/4/13 and 12/16/13 - Sampled by WDNR, Sampled from pressure tank spigot.
3717 M&M Ln.	7	---	---	NA	NA	NA	No well const. rpt. identified for this	NA
3840 M&M Ln.	8	---	---	126	126	Gravel	Well Const. Rpt., dated 10/30/87.	NA
3610 Gass Lake Rd.	9	---	---	NA	NA	NA	No well const. rpt. identified for this	NA
3027 Orchard Ln.	---	---	2/5/14 6/4/14 8/28/14 11/11/14 3/11/15	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Sampled from pressure tank spigot.
3128 Orchard Ln.	---	---	2/4/14 6/4/14	142	137	Limestone	Well Const. Rpt., dated 10/16/86.	CONFIRM RICHARD RATAJCZAK WAS OWNER IN 1986. Current owner is William Ratajczak and Brenda Birringer. Rental property, well is located to the S of building. 2/4/14 - Sampled from pressure tank spigot.
3318 Orchard Ln.	---	---	7/11/14	NA	NA	NA	No well const. rpt. identified for this property. Previous homeowners name is John.	Well is located approximately 100 feet to the southeast. Sampled from east spigot.
3420 Orchard Ln.	---	---	2/4/14 6/2/14	NA	NA	NA	No well const. rpt.identified for this property. Owner stated pump is installed at 100 feet per interview on 2/4/2014.	Well is located to SW of building. Sampled from kitchen sink.
3523 Orchard Ln.	---	---	2/4/14 5/28/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well is located to S of building. Sampled from kitchen sink.
3524 Orchard Ln.	---	---	2/4/14 6/2/14	NA	NA	NA	No well const. rpt. identified for this property. Owner had no information.	Well is located to N of building. Sampled from kitchen sink.
3921 Black Hawk Ct.	---	---	2/4/14 6/2/14 8/26/14 11/10/14 2/25/15	182	168	Limestone	Well Const. Rpt., dated 9/24/02.	Sampled from pressure tank spigot.

Notes:

[1] Shown are location IDs from Figure 6 in "Investigation Report - Former Gravel Pit, Town of Newton, Wisconsin," August 1993.

[2] Only one well sampled in 2008.

[3] Sampling dates provided for each well. Samples collected from 4609 Silver Creek Rd. on 12/3/13 and 3609 M&M Ln. on 12/16/13 were collected by WDNR.

BGS = Below Ground Surface

NA = Not Available

Table 2
SUMMARY OF CONTAMINANTS DETECTED IN POTABLE WELLS

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

Analyte	ES[1]	PAL[2]	3303 Hecker Rd.						3327 Hecker Rd.					
			10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15
			Basement	Basement	Basement	Basement	Basement	Basement	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):														
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	**11**	**11.6**	6.4	6.9	5.6	4.3
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
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 ANALYZED 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
			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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	2.58	2.15	2.12	1.79	1.49	1.59
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
RCRA Metals (mg/L)								
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA

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

			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
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	NA	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	NA	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 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
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 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
RCRA Metals (mg/L)											
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	0.00034 J	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	####### J	NA	NA	NA	NA	NA

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	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	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
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
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
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
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
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
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
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 ANALYZED 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
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
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
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
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
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 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
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
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
RCRA Metals (mg/L)														
Arsenic	0.01	0.001	NA	NA	NA	0.00032 J	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
Lead	0.015	0.0015	NA	NA	NA	0.00056 J	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	< ########	NA	NA	NA	NA	NA	NA	NA	NA

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

			3702 Hecker Rd.					4159 Silver Creek Rd							
			10/22/13	11/12/13	6/3/14	8/25/14	11/13/14	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
Analyte	**ES[1]**	**PAL[2]**	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
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	< 0.24	< 0.24	< 0.44
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	< 0.41	< 0.41	< 0.54
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	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38	0.49 J	0.73 J	0.72 J	0.64 J	0.54 J	0.59 J	0.52 J	0.56 J
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	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 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

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

Analyte	ES[1]	PAL[2]	2717 CTH CR(4141 Viebahn St.)					2734(2804) CTH CR					
			8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15	6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.4	1.31	1.44	1.3	1.26 J	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	**0.21 J**	**0.29 J**	**0.31 J**	**0.39 J**	**0.35 J**	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**
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

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

			2916 CTH CR							3023 CTH CR					
										Original Potable Well			Replacement Potable Well		
			2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/15 (DUP)	2/4/14	6/2/14	8/25/14	10/8/14	11/4/14	2/24/15
Analyte	**ES[1]**	**PAL[2]**	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
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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
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
cis-1,2-Dichloroethene	70	7	0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	2.84	2.87	2.34	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 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
Vinyl Chloride	0.2	0.02	**0.18 J**	< 0.18	< 0.18	**0.28 J**	**0.37 J**	< 0.17	**0.18 J**	**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 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

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

Analyte	ES[1]	PAL[2]	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
			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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 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
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 ANALYZED 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
			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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 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
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 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
RCRA Metals (mg/L)									
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA

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

Analyte	ES[1]	PAL[2]	3504 CTH CR										
			12/5/13	1/6/14	1/6/14 (DUP)	2/5/14	5/30/14	5/30/14(DUP)	8/25/14	8/25/14(DUP)	11/18/14	11/18/14 (DUP)	2/23/15
			Outside Spigot	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
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
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
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
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
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
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**
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

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

			3618 CTH CR					4002 Thunder Ridge Rd.		4005 Thunder Ridge Rd.			
			1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	1/3/14	8/25/14	5/29/14	8/26/14	11/11/14	2/23/15
Analyte	**ES[1]**	**PAL[2]**	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Pressure Tank	Pressure Tank	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	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.24	1.16 J	0.48 J	0.83 J	0.95 J	1.67	1.29	0.83 J	0.9 J	< 0.38	0.81 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 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

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

			4010 Thunder Ridge Rd.			4027 Thunder Ridge Rd.					4101 Thunder Ridge Rd.		
			5/28/14	8/26/14	2/24/15	5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	8/26/14	11/17/14	3/11/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.37	1.18 J	1.43	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.73 J	0.63 J	1.24 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	**0.43 J**
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

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

			4111 Thunder Ridge Rd.			3617 Viebahn St.				3701 Viebahn St.				
			8/25/14	11/17/14	2/23/15	11/7/14	11/19/14	2/24/15	2/24/15 (DUP)	10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	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	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.41 J	< 0.38	< 0.45	1.13 J	1.12 J	0.92 J	0.87 J	1.23	1.18 J	1.29	1.31 J	1.09 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**	**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**
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 ANALYZED IN POTABLE WELLS
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Analyte	ES[1]	PAL[2]	3815 Viebahn St.			3817 Viebahn St.			3825 Viebahn St.				4025 Viebahn St.		
			11/7/14	11/19/14	2/23/15	10/29/14	11/7/14	2/24/15	10/29/14	11/7/14	2/23/15	2/23/2015 DUP	10/29/14	11/7/14	2/24/15
			Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	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	< 0.44	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	0.74 J	0.94 J	0.90 J	0.4 J	< 0.38	< 0.45	< 0.38	< 0.38	< 0.45	< 0.45	1.38	1.46	1.11 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44	< 0.44	0.95 J	< 0.69	< 0.44
Vinyl Chloride	0.2	0.02	**0.33 J**	**0.31 J**	**0.25 J**	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.17	< 0.17	**0.34 J**	**0.31 J**	**0.32 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

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

Analyte	ES[1]	PAL[2]	4101 Viebahn St.			3027 Orchard Ln.					3921 Black Hawk Ct.				
			10/29/14	11/7/14	2/24/15	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	2/4/14	6/2/14	8/26/14	11/10/14	2/24/15
			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
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	< 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
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethene	7	0.7	< 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	1.48	1.13 J	1.24 J	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J
trans-1,2-Dichloroethene	100	20	< 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
Toluene	800	160	< 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
Vinyl Chloride	0.2	0.02	**0.38 J**	**0.39 J**	**0.43 J**	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 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

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 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
SUMMARY OF CONTAMINATES ANALYZED IN POTABLE WELLS

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

Analyte	ES[1]	PAL[2]	3114 Hecker Rd.			3121 Hecker Rd.		
			10/22/13	11/8/13	5/28/14	10/22/13	11/7/13	5/28/14
			Outside Spigot	Outside Spigot	Outside Spigot	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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	**1.36 J**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 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	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	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
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)								
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):								
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA
Field Screening Measurements								
pH (IU)	--	--	7.84	8.22	7.85	6.01	7.55	7.55
Conductivity (uS)	--	--	617	443	502	877	635	689
Temperature (^{o}C)	--	--	10.54	10.09	10.5	9.72	10.25	10.4
Dissolved Oxygen (ppm)	--	--	4.11	150.31	1.3	4.22	8.42	2.2
Redox Potential (mV)	--	--	20.2	90.5	70	90.1	95.7	38

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

			3303 Hecker Rd.						3320 Hecker Rd.		
			10/23/13	11/7/13	6/3/14	6/3/14(DUP)	11/17/14	2/23/15	10/22/13	11/7/13	5/28/14
Analyte	**ES[1]**	**PAL[2]**	Basement	Basement	Basement	Basement	Basement	Basement	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	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	0.68 J	0.68 J	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	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
trans-1,3-Dichloropropene	0.4	0.04	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	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25
Styrene	100	10	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	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)											
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements											
pH (IU)	--	--	8.13	7.32	7.32	7.32	7.85	8.04	7.66	7.99	7.78
Conductivity (uS)	--	--	585	538	538	538	587	618	598	455	477
Temperature (^{o}C)	--	--	9.69	10.31	10.31	10.31	8.83	7.31	10.41	9.78	11
Dissolved Oxygen (ppm)	--	--	4.22	2.41	2.41	2.41	6.84	7.1	4.03	6.51	0.89
Redox Potential (mV)	--	--	62	76.4	76.4	76.4	9.2	-131.9	56	86.7	50

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

			3327 Hecker Rd.						3461(3417) Hecker Rd.					
			10/23/13	11/7/13	5/28/14	8/25/14	11/10/14	2/23/15	10/24/13	11/12/13	5/30/14	8/26/14	11/10/14	2/24/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Kitchen 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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 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
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 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	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 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	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 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
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 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	< 0.52	< 0.28	< 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	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethane	850	85	< 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-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	**11**	**11.6**	6.4	6.9	5.6	4.3	2.58	2.15	2.12	1.79	1.49	1.59
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 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	< 3.1	< 0.36	< 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	< 0.42	< 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
cis-1,3-Dichloropropene	0.4	0.04	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
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 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	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 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	< 1.3	< 0.5	< 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	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 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
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 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	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 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	< 2.7	< 1.8	< 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	< 0.84	< 0.33	< 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	< 0.48	< 0.34	< 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	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 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
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 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	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
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)	--	--	8.38	7.82	7.81	7.72	8.04	8.13	7.55	7.27	7.45	7.89	7.81	7.83
Conductivity (uS)	--	--	620	478	528	603	596	614	723	554	562	721	733	771
Temperature (^{o}C)	--	--	10.96	8.62	10.2	12.6	10.35	6.16	10.5	9.43	11.9	14.1	10.72	7.91
Dissolved Oxygen (ppm)	--	--	3.22	6.69	1.11	1.89	1.23	4.15	4.73	17.93	1.53	0.95	2.47	4.12
Redox Potential (mV)	--	--	53.7	93.9	71	146	-14.5	-144.2	69	91.7	146	237	-112.9	-164.9

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

			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
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	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
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	NA	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	**1.02 J**	< 0.81	< 0.81	NA	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	NA	< 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	NA	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	NA	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	NA	< 0.44	< 0.44	< 0.44	< 0.44	< 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
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 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
cis-1,2-Dichloroethene	70	7	**7.4**	**7.2**	**7.4**	NA	**10**	**7.8**	< 0.38	< 0.38	< 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
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	NA	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	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
trans-1,3-Dichloropropene	0.4	0.04	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
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
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	NA	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	NA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 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
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	NA	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	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
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 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
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 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
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	NA	< 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
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	NA	< 2.2	< 2.2	< 2.2	< 2.2	< 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
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	NA	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	NA	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
RCRA Metals (mg/L)											
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	**0.0019**	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	0.15	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	< 0.00016	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	< 0.00054	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	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
Manganese	0.05	0.025	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
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	< 0.00038	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	< 0.00031	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	< 0.024	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
Conductivity (uS)	--	--	775	634	616	NM	694	783	NM	NM	2219
Temperature (^{o}C)	--	--	9.56	10.1	10.48	NM	10.6	11.7	NM	NM	7.19
Dissolved Oxygen (ppm)	--	--	3.81	5.75	5.46	NM	2.13	1.73	NM	NM	5.19
Redox Potential (mV)	--	--	20.1	74.8	91.8	NM	92	231	NM	NM	-154.6

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	3/11/14	3/31/14	4/22/14	5/29/14	5/29/14(DUP)	8/25/14	11/10/14	2/23/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Duplicate	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	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
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
Bromochloromethane	NL	NL	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
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
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
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
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
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
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
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
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
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
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
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
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
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
Dibromomethane	NL	NL	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
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
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
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
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
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-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
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
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
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
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
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
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	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
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
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
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
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
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
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
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
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
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
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
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 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
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
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
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
1,2,3-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
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
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
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
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
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 14	< 14	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
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
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
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
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
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
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)	--	--	6.16	7.48	7.4	NM	NM	NM	NM	7.37	7.37	7.9	7.74	8.00
Conductivity (uS)	--	--	744	554	554	NM	NM	NM	NM	1571	1571	2080	1942	1948
Temperature (^{o}C)	--	--	9.89	9.36	10.58	NM	NM	NM	NM	11.2	11.2	12.5	10.11	7.33
Dissolved Oxygen (ppm)	--	--	3.21	3.32	3.85	NM	NM	NM	NM	3.87	3.87	1.22	1.93	4.83
Redox Potential (mV)	--	--	74.1	92	93.1	NM	NM	NM	NM	-190	-190	178	-109.4	-123.8

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

Analyte	ES[1]	PAL[2]	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
			Outside Spigot	Outside Spigot	Inside Kitchen	Outside Spigot	Ouside Spigot	Ouside 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	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44
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
Bromochloromethane	NL	NL	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
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
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
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
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
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
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
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
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
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
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
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
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
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
Dibromomethane	NL	NL	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
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
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
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
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
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-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
cis-1,2-Dichloroethene	70	7	**45**	**45**	**46**	NA	**49**	**49**	**51**	**35**	**36**	< 0.38	< 0.38	< 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
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
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
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
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	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
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
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
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
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
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
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
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
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
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
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
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	NA	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	NA	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
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
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
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
1,2,3-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
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
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
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
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
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
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
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
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
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
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
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	0.00032 J	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
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	< 0.00016	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
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	0.00056 J	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	< 0.000049	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	< 0.00038	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
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	< 0.02	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	< 0.021	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	< 0.024	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	< 0.014	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	< 0.018	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	< 0.015	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
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
Conductivity (uS)	--	--	754	558	614	NM	634	634	983	675	675	NM	2248	2203
Temperature (^{o}C)	--	--	10.53	9.99	12.84	NM	11.1	11.1	15.2	12.4	12.4	NM	10.69	7.01
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
Redox Potential (mV)	--	--	73	95.4	91.6	NM	60	60	131	199	199	NM	-141.9	-118.4

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

			3625 Hecker Rd.			3627 Hecker Rd.			3702 Hecker Rd.				
			10/22/13	11/7/13	11/7/13	10/23/13	11/7/13	5/29/14	10/22/13	11/12/13	6/3/14	8/25/14	11/13/14
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
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	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
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	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
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	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	**0.82 J**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
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	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
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	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
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	< 0.28
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	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 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	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
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	< 0.3
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	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	0.71 J	0.61 J	< 0.38	< 0.38	< 0.38
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	< 0.35
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	< 0.32
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	< 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	< 0.33	< 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	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
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	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
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
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
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	< 0.5
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	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
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	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
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	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
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	< 0.98
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	< 1.8
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	< 0.33
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	< 0.34
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	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
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	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
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	< 0.69
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	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
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	NA	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	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	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
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	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements													
pH (IU)	--	--	7.38	7.77	7.75	7.98	7.75	7.18	7.83	8.28	7.62	7.87	7.87
Conductivity (uS)	--	--	782	552	651	707	531	576	757	522	552	657	657
Temperature (^{o}C)	--	--	11.04	10.92	15.5	10.13	9.63	11.5	9.82	10.58	14	14.1	14.1
Dissolved Oxygen (ppm)	--	--	4.54	5.31	1.71	4.53	4.69	2.53	4.73	8.16	4.6	3.77	3.77
Redox Potential (mV)	--	--	68.4	85.9	119	45.1	91.3	137	52.9	100.4	158	245	245

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

Analyte	ES[1]	PAL[2]	3720 Hecker Rd.			3812 Silver Creek Rd	3902 Silver Creek Rd	4004 Silver Creek Rd	4156 Silver Creek Rd
			10/22/13	11/12/13	6/2/14	5/28/14	11/18/14	11/18/14	5/28/14
			Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):									
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	**1.48 J**	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 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	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 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
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	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
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	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
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):									
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements									
pH (IU)	--	--	8.03	7.86	7.43	7.97	8.26	7.96	7.91
Conductivity (uS)	--	--	775	529	622	520	654	826	683
Temperature (^{o}C)	--	--	9.56	10.58	12.1	10.4	10	9.68	12.2
Dissolved Oxygen (ppm)	--	--	3.81	7.26	1.22	1.98	7.75	2.8	3.76
Redox Potential (mV)	--	--	20.1	87.4	155	112.0	-38.0	65.8	117.0

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

			4159 Silver Creek Rd								4220 Silver Creek Rd	4314 Silver Creek Rd		4315 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	5/30/14	12/5/13	6/4/14	12/12/13	6/2/14
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Pump Spigot	Pump Spigot	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	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 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	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 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-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
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	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 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
cis-1,3-Dichloropropene	0.4	0.04	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
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 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
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	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	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	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
Aroclor-1242	--	--	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
Aroclor-1254	--	--	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
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH (IU)	--	--	8.75	7.99	7.53	7.53	7.53	7.93	7.93	7.94	7.11	8.05	7.48	8.32	7.38
Conductivity (uS)	--	--	979	593	562	562	562	562	562	654	835	956	958	789	545
Temperature (^{o}C)	--	--	9.8	9.72	12.4	12.4	12.4	11.23	11.23	8.29	11.4	8.64	11.7	6.8	12.3
Dissolved Oxygen (ppm)	--	--	2.59	5.87	2.3	2.3	2.3	4.12	4.12	3.56	4.54	7.32	2.97	4.01	1.91
Redox Potential (mV)	--	--	101.0	135.2	146	146	146	-63.9	-63.9	-138.9	145.0	87.0	168.0	105	111

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

			4609 Silver Creek Rd		4620 Silver Creek Rd.				4752 Silver Creek Rd		4808 Silver Creek Rd		5202 Silver Creek Rd.		2706 CTH CR
			12/3/13	6/3/14	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
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	House-Outside	Barn-Inside	House-Outside	Barn-Inside	Kitchen Sink	Kitchen Sink	Pump Spigot	Pump Spigot	Hose Bib	Inside Barn	Outside Spigot
Volatile Organic Compounds (VOCs) (µg/L):															
Benzene	5	0.5	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.47	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.36	< 0.32	< 0.32
Bromochloromethane	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	< NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.5	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.38	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.34	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.36	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.52	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.46	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.31	< 0.24	< 0.24
Chloroethane	400	80	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.47	< 0.63	< 0.63
Chloroform	6	0.6	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.49	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.38	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.20	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.32	< 0.22	< 0.22
Dibromomethane	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.33	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.3	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.35	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.20	< 0.44	< 0.44	< 0.44	< 0.44	0.45 J	< 0.44	< 0.44	< 0.44	< 0.44	< 0.46	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.45	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.56	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.64	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.15	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.7	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.95	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.47	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.98	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.39	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.3	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.49	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.38	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.48	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.35	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.69	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.52	< 0.23	< 0.23
Naphthalene	100	10	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.8	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.38	< 0.25	< 0.25
Styrene	100	10	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.20	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.75	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.52	< 0.33	< 0.33
Toluene	800	160	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.46	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.5	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.6	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.5	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.5	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.44	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.61	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.37	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.20	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.2	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69
o-Xylene	--	--	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.32	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.67	< 0.69	< 0.69
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	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
Aroclor-1242	--	--	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
Aroclor-1254	--	--	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
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH (IU)	--	--	NM	7.25	7.84	7.53	7.84	7.68	7.39	7.64	6.54	7.69	NM	8.72	7.59
Conductivity (uS)	--	--	NM	526	534	493	614	576	535	530	588	538	NM	609	540
Temperature (^{o}C)	--	--	NM	12.4	10.58	8.23	10.2	8.2	12.19	12.1	8.93	11.4	NM	7.50	14.20
Dissolved Oxygen (ppm)	--	--	NM	2.61	10.33	3.49	0.99	4.3	5.22	1.21	7.21	1.58	NM	5.32	1.76
Redox Potential (mV)	--	--	NM	165	86.7	114.5	89	88	69.9	138	83.4	137	NM	81.1	227

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

Analyte	ES[1]	PAL[2]	2716 CTH CR		2717 CTH CR(4141 Viebahn St.)				
			9/8/14	11/18/14	8/25/14	9/8/14	9/8/14(DUP)	11/10/14	2/23/15
			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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	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
Bromoform	4.4	0.44	< 0.35	< 0.35	< 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
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 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
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 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
Chloroform	6	0.6	< 0.28	< 0.28	< 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
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 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
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 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
Dibromomethane	NL	NL	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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 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
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 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
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 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
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	1.4	1.31	1.44	1.3	1.26 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 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
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 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
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	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
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 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
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 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
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 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
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 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
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	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
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 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
Toluene	800	160	< 0.69	< 0.69	< 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
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 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
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 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
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 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
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.21 J**	**0.29 J**	**0.31 J**	**0.39 J**	**0.35 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 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
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
RCRA Metals (mg/L)									
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):									
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements									
pH (IU)	--	--	7.59	8.61	8.03	7.87	7.87	7.95	8.15
Conductivity (uS)	--	--	658	374	640	721	721	625	662
Temperature (^{o}C)	--	--	12.83	8.45	8.03	9.15	9.15	12.28	6.49
Dissolved Oxygen (ppm)	--	--	2.11	7.32	2.28	1.73	1.73	3.39	4.63
Redox Potential (mV)	--	--	131	20.6	239	221	221	-65	-162.7

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
			6/3/14	8/25/14	11/10/14	11/25/14	11/25/14 (DUP)	2/24/15	2/4/14	6/3/14	5/29/14
Analyte	**ES[1]**	**PAL[2]**	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Garage Spigot	Pressure Tank	Kitchen Sink	Kitchen Sink	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	24.3	< 1.9	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	0.77 J	0.77 J	0.63 J	0.93 J	1.02 J	0.7 J	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	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
trans-1,3-Dichloropropene	0.4	0.04	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	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25
Styrene	100	10	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	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	**0.26 J**	**0.38 J**	**0.43 J**	**0.2 J**	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)											
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements											
pH (IU)	--	--	7.32	8.01	7.87	NM	NM	7.96	7.32	7.6	7.19
Conductivity (uS)	--	--	485	606	661	NM	NM	597	411	588	727
Temperature (^{o}C)	--	--	12.20	15.50	10.42	NM	NM	6.11	6.61	14.50	11.70
Dissolved Oxygen (ppm)	--	--	0.97	0.96	1.79	NM	NM	6.15	NM	2.35	2.98
Redox Potential (mV)	--	--	161	237	-99.4	NM	NM	-133.9	95.2	167	115

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

Analyte	ES[1]	PAL[2]	2916 CTH CR							2917 CTH CR	
			2/4/14	5/28/14	8/25/14	11/10/14	11/25/14	3/11/15	3/11/2015 (DUP)	2/4/14	5/30/14
			Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Kitchen Sink	Kitchen Sink
Volatile Organic Compounds (VOCs) (µg/L):											
Benzene	5	0.5	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.44	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32
Bromochloromethane	NL	NL	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
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21
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
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22
Dibromomethane	NL	NL	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
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41
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-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	0.97 J	0.9 J	1.02 J	0.74 J	0.82 J	0.75 J	0.8 J	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 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
cis-1,3-Dichloropropene	0.4	0.04	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
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.44	< 0.23	< 0.23
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
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5
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
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25
Styrene	100	10	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
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
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33
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
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	**0.18 J**	< 0.18	< 0.18	**0.28 J**	**0.37 J**	< 0.17	**0.18 J**	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 0.69	< 0.69
RCRA Metals (mg/L)											
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	NA
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
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements											
pH (IU)	--	--	7.35	12.6	7.53	7.91	NM	NM	NM	7.32	7.82
Conductivity (uS)	--	--	396	1329	NM	601	NM	NM	NM	962	1709
Temperature (^{o}C)	--	--	9.60	12.60	11.50	10.50	NM	NM	NM	9.01	11.90
Dissolved Oxygen (ppm)	--	--	5.32	1.5	1.73	1.64	NM	NM	NM	NM	1.22
Redox Potential (mV)	--	--	110	121	138	-85.3	NM	NM	NM	113.2	134

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
Analyte	**ES[1]**	**PAL[2]**	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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 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	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 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	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 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	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 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	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 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	< 0.65
cis-1,2-Dichloroethene	70	7	2.84	2.87	2.34	< 0.38	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 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	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 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	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 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	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 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	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	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
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	0 0.33	0 0.33	0 0.33	0 0.33	0 0.33	< 0.74
Toluene	800	160	< 0.69	< 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	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 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	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 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	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	**0.55 J**	**0.41 J**	**0.33 J**	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 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	< 0.9
RCRA Metals (mg/L)								
Antimony	0.006	0.0012	NA	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):								
Aroclor-1016	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA
Field Screening Measurements								
pH (IU)	--	--	7.32	7.42	7.75	NM	7.7	7.64
Conductivity (uS)	--	--	404	562	619	NM	2352	2286
Temperature (^{o}C)	--	--	9.16	11.10	12.80	NM	10.30	8.17
Dissolved Oxygen (ppm)	--	--	NM	1.5	0.87	NM	2.21	3.74
Redox Potential (mV)	--	--	113.2	152	222	NM	-126.3	-112

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

			3120 CTH CR									3224 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	2/4/14	6/4/14	8/25/14	11/17/14
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
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	< 0.24	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21
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	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	2.74	2.86	2.65	2.68	1.89	2.23	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36
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	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	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
trans-1,3-Dichloropropene	0.4	0.04	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	< 0.23	< 0.23	< 0.23	< 0.23
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	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5
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	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	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	< 0.45	< 0.45	< 0.45	< 0.45
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	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33
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	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2
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	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	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
Aroclor-1242	--	--	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
Aroclor-1254	--	--	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
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH (IU)	--	--	7.51	7.38	7.8	7.8	7.91	7.91	NM	7.61	7.79	NM	7.66	8.17	7.98
Conductivity (uS)	--	--	566	570	616	616	649	649	NM	2177	2051	383	513	653	598
Temperature (^{o}C)	--	--	8.27	8.04	11.20	11.20	7.91	7.91	NM	10.30	7.94	9.24	11.50	13.10	8.69
Dissolved Oxygen (ppm)	--	--	5.32	5.32	4.79	4.79	1.24	1.24	NM	3.21	4.58	NM	2.87	1.91	2.61
Redox Potential (mV)	--	--	158.1	157.3	111	111	247	247	NM	-135.6	-112.7	111.3	170	235	-55.8

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

Analyte	ES[1]	PAL[2]	3312 CTH CR				3322 CTH CR			
			2/26/14	6/2/14	8/26/14	11/10/14	1/6/14	6/4/14	8/25/14	11/10/14
			Bath Tub	Bath Tub	Outside Spigot	Outside Spigot	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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
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	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
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
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
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	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 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	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 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
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	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
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	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
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	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
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)	--	--	NM	7.93	7.75	7.98	7.82	7.9	8.06	8.06
Conductivity (uS)	--	--	NM	416	765	2750	417	380	475	475
Temperature (^{o}C)	--	--	NM	11.8	11.7	10.63	9.08	12.10	14.40	14.40
Dissolved Oxygen (ppm)	--	--	NM	2.48	0.57	3.11	5.32	1.3	0.57	0.57
Redox Potential (mV)	--	--	NM	87	225	40.3	174.8	151	242	242

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

Analyte	ES[1]	PAL[2]	3403 CTH CR							3412 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	1/3/14	8/26/14	11/10/14
			Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	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	< 0.24	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	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
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
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21
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
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	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
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
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
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41
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
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
cis-1,2-Dichloroethene	70	7	1.3	1.67	1.48	1.34	< 0.38	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38
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
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
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
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 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	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.23
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
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	1.56 J	< 0.5
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
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25
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	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.45
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
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69
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
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
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33
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
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
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	**0.56 J**	**0.25 J**	**0.22 J**	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements												
pH (IU)	--	--	7.51	7.18	7.64	7.74	NM	7.69	7.66	7.02	7.98	7.95
Conductivity (uS)	--	--	935	682	1060	1094	NM	2528	2436	909	521	512
Temperature (^{o}C)	--	--	7.63	8.12	10.50	12.90	NM	11.76	6.99	8.99	13.60	10.65
Dissolved Oxygen (ppm)	--	--	6.51	5.01	1.19	3.23	NM	1.49	5.2	5.52	1.25	2.82
Redox Potential (mV)	--	--	166.6	32.2	84	236	NM	-219.9	-129.3	155.0	238.0	-51.5

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

Analyte	ES[1]	PAL[2]	3422 CTH CR			
			1/6/14	5/30/14	8/25/14	11/18/14
			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
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69
RCRA Metals (mg/L)						
Antimony	0.006	0.0012	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):						
Aroclor-1016	--	--	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA
Field Screening Measurements						
pH (IU)	--	--	7.13	7.62	8.07	8
Conductivity (uS)	--	--	627	605	633	653
Temperature (^{o}C)	--	--	8.81	12.30	14.20	10.56
Dissolved Oxygen (ppm)	--	--	5.32	4.07	2.53	7.38
Redox Potential (mV)	--	--	142.0	1.3	246.0	-84.2

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

Analyte	ES[1]	PAL[2]	3504 CTH CR										
			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
			Outside Spigot	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
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
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	< 0.37	< 0.37	< 0.37	< 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	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 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	< 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	< 0.35	< 0.35	< 1
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
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
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
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
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
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
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
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
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
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	< 0.3	< 0.3	< 0.3	< 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	< 0.28	< 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	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 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	< 0.41	< 0.41	< 0.54
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-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
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
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
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
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
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
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	< 0.23	< 0.23	< 0.23	< 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	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 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
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
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
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
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
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
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
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	< 0.33	< 0.45	< 0.45	< 0.45	< 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	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
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
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
1,2,3-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
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
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
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
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
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	< 2.2	< 2.2	< 2.2	< 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	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 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**
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
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 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	< 0.69	< 0.69	< 0.9
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	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
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	NA	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	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	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
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	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
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
Conductivity (uS)	--	--	633	636	636	503	586	586	699	699	687	687	715
Temperature (^{o}C)	--	--	12.49	9.07	9.07	11.49	12.1	12.1	13.8	13.8	9.79	9.79	8.25
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
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

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FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

			3523 CTH CR		3533 CTH CR		3611 CTH CR	3618 CTH CR					3626 CTH CR	
			1/3/14	6/3/14	1/6/14	6/3/14	5/30/14	1/3/14	5/29/14	8/25/14	11/10/14	2/23/15	12/5/13	5/30/14
Analyte	**ES[1]**	**PAL[2]**	Basement	Basement	Basement	Basement	Outside Spigot	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Kitchen Sink	Bathroom	Bathroom
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	< 0.44	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32
Bromochloromethane	NL	NL	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	< 0.46	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	0.28 J	0.28 J	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21
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	< 1.4	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22
Dibromomethane	NL	NL	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	< 0.49	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	1.24	1.16 J	0.48 J	0.83 J	0.95 J	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 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
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	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
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23
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	< 0.63	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5
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	< 1.1	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45
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	< 0.48	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33
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	< 0.48	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	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	< 1.6	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69
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)	--	--	7.93	7.93	7.49	6.84	6.98	7.02	7.8	7.87	7.95	7.95	8,42	7.58
Conductivity (uS)	--	--	506	506	739	885	931	543	520	658	674	674	519	500
Temperature (^{o}C)	--	--	11.71	11.71	9.92	12.50	10.30	9.02	7.80	18.30	11.33	11.33	8.69	11.98
Dissolved Oxygen (ppm)	--	--	2.96	2.96	5.91	1.85	3.95	5.32	2.24	0.8	1.44	1.44	5.73	1.83
Redox Potential (mV)	--	--	187.0	187.0	157.2	138	166	147.6	136	238	-102.5	-102.5	90.0	143.0

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

Analyte	ES[1]	PAL[2]	3627 CTH CR		3904 CTH CR		4024 CTH CR		4101 CTH CR	4002 Thunder Ridge Rd.		4005 Thunder Ridge Rd.			
			12/5/13	5/29/14	12/5/13	5/28/14	12/12/13	5/28/14	5/29/14	1/3/14	8/25/14	5/29/14	8/26/14	11/11/14	2/23/15
			Basement	Basement	Pressure Tank	Pressure Tank	Spigot in Barn	Spigot in Barn	Pressure Tank	Pressure Tank	Pressure Tank	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	< 0.24	< 0.24	< 0.24	< 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	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	< 0.37	< 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	< 0.35	< 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	< 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	< 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	< 0.35	< 0.35	< 0.35	< 0.35	< 1
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	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 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	< 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	< 0.21	< 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	< 0.21	< 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	< 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	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	< 0.3	< 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	< 0.28	< 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	< 0.36	< 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	< 0.44	< 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	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
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	< 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	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	1.67	1.29	0.83 J	0.9 J	< 0.38	0.81 J
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	< 0.35	< 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	< 0.32	< 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	< 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	< 0.33	< 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
cis-1,3-Dichloropropene	0.4	0.04	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
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	< 0.23	< 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	< 0.44	< 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	< 0.55	< 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	< 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	< 0.3	< 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	< 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	< 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	< 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	< 1.7	< 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	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	< 0.45	< 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	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 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	< 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	< 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	< 0.33	< 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	< 0.34	< 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	< 0.33	< 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	< 0.71	< 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
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 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	< 1.4	< 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	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 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	< 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	< 0.63	< 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	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
RCRA Metals (mg/L)															
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	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
Aroclor-1242	--	--	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
Aroclor-1254	--	--	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
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Screening Measurements															
pH (IU)	--	--	8.49	7.5	8.05	7.88	8.32	7.65	7.42	7.21	7.32	7.75	8.06	8.00	8.06
Conductivity (uS)	--	--	655	861	828	905	599	565	598	583	740	663	781	774	744
Temperature (^{o}C)	--	--	12.16	15.1	8.43	11.5	5.6	12.3	12.4	8.51	13.1	12	14.9	9.71	8.1
Dissolved Oxygen (ppm)	--	--	4.92	1.46	5.32	3.84	4.71	1.44	2.3	5.32	3.49	1.43	1.35	1.66	8.33
Redox Potential (mV)	--	--	91.3	152	96.9	138	99	124	126	159.0	237.0	122.0	199.0	-120.9	-195.4

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

			4010 Thunder Ridge Rd.			4027 Thunder Ridge Rd.					4101 Thunder Ridge Rd.		
			5/28/14	8/26/14	2/24/15	5/29/14	8/26/14	11/11/14	11/11/14 (DUP)	2/24/15	8/26/14	11/17/14	3/11/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Pressure Tank	Outside Spigot	Outside Spigot	Pressure Tank
Volatile Organic Compounds (VOCs) (µg/L):													
Benzene	5	0.5	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 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	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 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	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.37	1.18 J	1.43	0.59 J	0.52 J	0.6 J	0.53 J	0.48 J	0.73 J	0.63 J	1.24 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 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
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	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 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	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 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	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	**0.43 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.9
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	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
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	NA	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	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	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
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	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements													
pH (IU)	--	--	7.97	7.85	8.15	7.52	7.43	7.95	7.95	7.94	7.75	7.7	NM
Conductivity (uS)	--	--	687	742	746	702	837	890	890	1928	836	777	NM
Temperature (^{o}C)	--	--	14.2	13.3	8.83	12	13	11.13	11.13	8.09	15.4	9.74	NM
Dissolved Oxygen (ppm)	--	--	0.99	2.35	6.62	2.1	1.96	3.25	3.25	4.48	1.4	1.24	NM
Redox Potential (mV)	--	--	118.0	245.0	-158.0	132.0	229.0	-109.8	-109.8	-150.9	236.0	-33.7	NM

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

			4111 Thunder Ridge Rd.			4127 Thunder Ridge Rd.		3107 Fricke Dr.	3617 Viebahn St.			
			8/25/14	11/17/14	2/23/15	12/5/13	5/29/14	12/5/13	11/7/14	11/19/14	2/24/15	2/2415 (DUP)
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Outside Spigot	Well Pump	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	< 0.24	< 0.24	< 0.44	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 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	< 0.37	< 0.37	< 0.46	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 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	< 0.88	< 0.88	< 1.4	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 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	< 0.3	< 0.3	< 0.49	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65
cis-1,2-Dichloroethene	70	7	0.41 J	< 0.38	< 0.45	< 0.38	< 0.38	< 0.38	1.13 J	1.12 J	0.92 J	0.87 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42
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	< 0.23	< 0.23	< 0.44	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 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	< 0.45	< 0.45	< 0.52	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 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	< 2.2	< 2.2	< 1.6	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18	< 0.18	**0.48 J**	**0.4 J**	< 0.17	**0.18 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements												
pH (IU)	--	--	7.65	7.99	7.98	8.24	7.32	7.63	8.12	7.99	8.32	8.32
Conductivity (uS)	--	--	809	786	818	1033	1046	561	646	590	511	511
Temperature (^{o}C)	--	--	12.8	8.88	7.83	8.53	11.5	8.58	10.44	9.95	9.00	9.00
Dissolved Oxygen (ppm)	--	--	0.97	5.9	4.31	5.21	1.33	5.32	3.7	1.93	3.89	3.89
Redox Potential (mV)	--	--	236.0	-41.4	-155.3	95.0	132.0	80.3	-29.2	-147.6	-185.7	-185.7

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

			3701 Viebahn St.					3815 Viebahn St.			3817 Viebahn St.		
			10/29/14	11/7/14	11/7/14 (DUP)	2/23/15	2/23/15 (DUP)	11/7/14	11/19/14	2/23/15	10/29/14	11/7/14	2/24/15
Analyte	**ES[1]**	**PAL[2]**	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Pressure Tank	Outside Spigot	Outside Spigot	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	< 0.24	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 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	< 0.46	< 0.46	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.65	< 0.65	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 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	< 0.49	< 0.49	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	1.23	1.18 J	1.29	1.31 J	1.09 J	0.74 J	0.94 J	0.90 J	0.4 J	< 0.38	< 0.45
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.42	< 0.42	< 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
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	< 0.44	< 0.44	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	1.5 J	1.17 J	1.12 J	< 1.3 J	< 1.3 J	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 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	< 0.52	< 0.52	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.74	< 0.74	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.44	< 0.44	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 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
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	**0.29 J**	**0.32 J**	**0.49 J**	**0.31 J**	**0.33 J**	**0.33 J**	**0.31 J**	**0.25 J**	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.9	< 0.9	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
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	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
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	NA	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	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	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
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	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements													
pH (IU)	--	--	8.38	7.76	7.76	8.04	8.04	8.01	7.63	7.68	7.83	8.31	8.13
Conductivity (uS)	--	--	630	658	658	618	618	644	561	664	631	658	746
Temperature (^{o}C)	--	--	10.13	9.68	9.68	7.31	7.31	10.05	8.58	7.84	10.85	10.42	9.47
Dissolved Oxygen (ppm)	--	--	6.51	4.68	4.68	7.1	7.1	2.54	5.32	3.51	3.22	3.37	2.72
Redox Potential (mV)	--	--	-58.3	13.3	13.3	-131.9	-131.9	21.5	80.3	-113.7	-95.3	14	-158.6

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

			3825 Viebahn St.				4025 Viebahn St.			4101 Viebahn St.		
			10/29/14	11/7/14	2/23/15	2/23/15 (DUP)	10/29/14	11/7/14	2/24/15	10/29/14	11/7/15	2/24/15
Analyte	**ES[1]**	**PAL[2]**	Outside Spigot	Outside 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	< 0.44	< 0.44	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.48	< 0.48	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32	< 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	< 0.46	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.46	< 0.46	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 1.1	< 1.1	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 1.2	< 1.2	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 1	< 1	< 0.35	< 0.35	< 1	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.65	< 0.65	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.46	< 0.46	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.65	< 0.65	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.43	< 0.43	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 1.9	< 1.9	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.4	< 0.4	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.63	< 0.63	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21	< 0.63
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 1.4	< 1.4	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.45	< 0.45	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22	< 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	< 0.49	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.52	< 0.52	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.46	< 0.46	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.87	< 0.87	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.54	< 0.54	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 1.1	< 1.1	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.65	< 0.65	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.45	< 0.45	1.38	1.46	1.11 J	1.48	1.13 J	1.24 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.54	< 0.54	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.43	< 0.43	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 3.1	< 3.1	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.42	< 0.42	< 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
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	< 0.44	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23	< 0.44
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.63	< 0.63	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.71	< 0.71	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 2.2	< 2.2	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.82	< 0.82	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 1.1	< 1.1	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5	< 1.3
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 1.1	< 1.1	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.6	< 1.6	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.77	< 0.77	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25	< 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	< 0.52	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45	< 0.52
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.48	< 0.48	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.74	< 0.74	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.44	< 0.44	0.95 J	< 0.69	< 0.44	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 1.7	< 1.7	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 2.7	< 2.7	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.84	< 0.84	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.48	< 0.48	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.47	< 0.47	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.87	< 0.87	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71	< 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	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.5	< 1.5	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 1.6	< 1.6	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.17	< 0.17	**0.34 J**	**0.31 J**	**0.32 J**	**0.38 J**	**0.39 J**	**0.43 J**
m&p-Xylene	--	--	< 0.69	< 0.69	< 2.2	< 2.2	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.9	< 0.9	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.9	< 0.9	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69	< 0.9
RCRA Metals (mg/L)												
Antimony	0.006	0.0012	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
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
Copper	1.3	0.13	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
Lead	0.015	0.0015	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
Mercury	0.002	0.0002	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
Selenium	0.05	0.01	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
Sodium	increase of 10		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
Zinc	5	2.5	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
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements												
pH (IU)	--	--	7.87	8.21	8.03	8.03	7.87	8.03	7.92	7.79	7.99	8.04
Conductivity (uS)	--	--	674	668	670	670	824	629	628	644	627	653
Temperature (^{o}C)	--	--	10.27	9.86	7.43	7.43	10.89	10.23	8.86	11.17	10.87	8.99
Dissolved Oxygen (ppm)	--	--	2.94	6.05	4.32	4.32	2.45	3.11	4.78	2.31	3.21	4.05
Redox Potential (mV)	--	--	-104.5	-21.3	-120.7	-120.7	-104.9	-2.2	-126.9	-91.1	-22.3	-151.7

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

Analyte	ES[1]	PAL[2]	4219 Viebahn St.	5107 Viebahn St.	3609 M&M Ln.		3027 Orchard Ln.					3128 Orchard Ln.	
			9/8/14	12/5/13	12/4/13	12/16/13	2/5/14	6/4/14	8/28/14	11/11/14	3/11/15	2/4/14	6/4/14
			Outside Spigot	Well Pump	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	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.44	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48	< 0.32	< 0.32
Bromochloromethane	NL	NL	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.15	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 1	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.15	< 0.15	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.15	< 0.15	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.15	< 0.15	< 0.21	< 0.21	< 0.21	< 0.21	< 0.63	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane (DBCP)	0.2	0.02	< 0.88	< 0.88	< 0.20	< 0.20	< 0.88	< 0.88	< 0.88	< 0.88	< 1.4	< 0.88	< 0.88
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.15	< 0.15	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45	< 0.22	< 0.22
Dibromomethane	NL	NL	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.15	< 0.15	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.20	< 0.20	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87	< 0.44	< 0.44
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.15	< 0.15	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.15	< 0.15	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.15	< 0.15	0.47 J	0.39 J	0.49 J	< 0.38	< 0.45	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.15	< 0.15	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.15	< 0.15	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.15	< 0.15	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42	< 0.33	< 0.33
1,1-Dichloropropene	NL	NL	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 0.23	< 0.23	NA	NA	< 0.23	< 0.23	< 0.23	< 0.23	< 0.44	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.15	< 0.15	< 0.44	< 0.44	< 0.44	< 0.44	< 0.63	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.15	< 0.15	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 0.15	< 0.15	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.15	< 0.15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.15	< 0.15	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.15	< 0.15	< 0.5	< 0.5	< 0.5	< 0.5	< 1.3	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.15	< 0.15	< 0.23	< 0.23	< 0.23	< 0.23	< 1.1	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 0.15	< 0.15	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.15	< 0.15	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77	< 0.25	< 0.25
Styrene	100	10	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 0.45	< 0.45	< 0.20	< 0.20	< 0.45	< 0.45	< 0.45	< 0.45	< 0.52	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.48	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.15	< 0.15	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 0.15	< 0.15	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.15	< 0.15	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.15	< 0.15	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.15	< 0.15	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87	< 0.71	< 0.71
1,2,3-Trichloropropane	60	12	NA	NA	< 0.15	< 0.15	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 0.15	< 0.15	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 0.15	< 0.15	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.20	< 0.20	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.15	< 0.15	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.15	< 0.15	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9	< 0.69	< 0.69
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	NA	NA	NA	NA	NA	NA	NA	NA
Barium	2	0.4	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
Cadmium	0.005	0.0005	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
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	NA	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	NA	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	NA	NA	NA	NA	NA	NA	NA	NA
Sliver	0.05	0.01	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
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	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1260	--	--	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
Field Screening Measurements													
pH (IU)	--	--	7.45	8.1	NM	NM	7.21	7.25	7.82	8.03	NM	7.32	7.63
Conductivity (uS)	--	--	779	571	NM	NM	379	136	921	553	NM	603	797
Temperature (^{o}C)	--	--	11.75	11.09	NM	NM	8.5	10.6	10.7	10.29	NM	8.75	10.4
Dissolved Oxygen (ppm)	--	--	3.21	4.23	NM	NM	7.42	2.5	1.22	4.06	NM	NM	1.97
Redox Potential (mV)	--	--	225	84.5	NM	NM	42.4	136	236	-7.3	NM	113.2	117

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

Analyte	ES[1]	PAL[2]	3318 Orchard Ln.	3420 Orchard Ln.		3523 Orchard Ln.		3524 Orchard Ln.		
			7/11/14	2/4/14	6/2/14	2/4/14	5/28/14	2/4/14	6/2/14	6/2/2014(DUP)
			Outside Spigot	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	< 0.24	< 0.24
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
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	< 0.37	< 0.37	< 0.37
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81	< 0.81
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
4-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
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
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22	< 0.22
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	< 0.3	< 0.3	< 0.3
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 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	< 0.41	< 0.41	< 0.41
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
cis-1,2-Dichloroethene	70	7	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,3-Dichloropropane	NL	NL	< 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
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	< 0.23	< 0.23	< 0.23
EDB (1,2-Dibromoethane)	0.05	0.005	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Methylene Chloride	5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-butyl ether (MTBE)	60	12	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23	< 0.23
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
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	< 0.45	< 0.45	< 0.45
1,1,1,2-Tetrachloroethane	70	7	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98	< 0.98
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33	< 0.33
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71	< 0.71
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	< 2.2	< 2.2	< 2.2
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63	< 0.63
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69	< 0.69
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)	--	--	7.52	7.1	8.06	7.21	7.78	7.03	7.41	7.41
Conductivity (uS)	--	--	1033	454	470	514	671	579	672	672
Temperature (^{o}C)	--	--	13.8	7.1	11.8	8.96	10.6	9.29	12.1	12.1
Dissolved Oxygen (ppm)	--	--	4.11	6.53	1.23	5.32	4.99	5.3	1.62	1.62
Redox Potential (mV)	--	--	123	123.2	165	210.0	111.0	117.3	159.0	159.0

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

Analyte	ES[1]	PAL[2]	3921 Black Hawk Ct.				
			2/4/14	6/2/14	8/26/14	11/10/14	2/24/15
			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	< 0.44
Bromobenzene	NL	NL	< 0.32	< 0.32	< 0.32	< 0.32	< 0.48
Bromochloromethane	NL	NL	NA	NA	NA	NA	NA
Bromodichloromethane	0.6	0.06	< 0.37	< 0.37	< 0.37	< 0.37	< 0.46
Bromoform	4.4	0.44	< 0.35	< 0.35	< 0.35	< 0.35	< 0.46
tert-Butylbenzene	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 1.1
sec-Butylbenzene	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 1.2
n-Butylbenzene	NL	NL	< 0.35	< 0.35	< 0.35	< 0.35	< 1
Carbon Tetrachloride	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.65
Chlorobenzene	NL	NL	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46
Chloroethane	400	80	< 0.63	< 0.63	< 0.63	< 0.63	< 0.65
Chloroform	6	0.6	< 0.28	< 0.28	< 0.28	< 0.28	< 0.43
Chloromethane	3	0.3	< 0.81	< 0.81	< 0.81	< 0.81	< 1.9
2-Chlorotoluene	NL	NL	< 0.21	< 0.21	< 0.21	< 0.21	< 0.4
4-Chlorotoluene	NL	NL	< 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	< 1.4
Dibromochloromethane	60	6	< 0.22	< 0.22	< 0.22	< 0.22	< 0.45
Dibromomethane	NL	NL	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	75	15	< 0.3	< 0.3	< 0.3	< 0.3	< 0.49
1,3-Dichlorobenzene	600	120	< 0.28	< 0.28	< 0.28	< 0.28	< 0.52
1,2-Dichlorobenzene	600	60	< 0.36	< 0.36	< 0.36	< 0.36	< 0.46
Dichlorodifluoromethane	1000	200	< 0.44	< 0.44	< 0.44	< 0.44	< 0.87
1,2-Dichloroethane	5	0.5	< 0.41	< 0.41	< 0.41	< 0.41	< 0.54
1,1-Dichloroethane	850	85	< 0.3	< 0.3	< 0.3	< 0.3	< 1.1
1,1-Dichloroethene	7	0.7	< 0.4	< 0.4	< 0.4	< 0.4	< 0.65
cis-1,2-Dichloroethene	70	7	0.87 J	0.97 J	1.14 J	0.65 J	0.93 J
trans-1,2-Dichloroethene	100	20	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54
1,2-Dichloropropane	5	0.5	< 0.32	< 0.32	< 0.32	< 0.32	< 0.43
2,2-Dichloropropane	NL	NL	< 0.36	< 0.36	< 0.36	< 0.36	< 3.1
1,3-Dichloropropane	NL	NL	< 0.33	< 0.33	< 0.33	< 0.33	< 0.42
1,1-Dichloropropene	NL	NL	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	0.04	NA	NA	NA	NA	NA
Di-isopropyl ether	NL	NL	< 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	< 0.63
Ethylbenzene	700	140	< 0.55	< 0.55	< 0.55	< 0.55	< 0.71
Hexachlorobutadiene	NL	NL	< 1.5	< 1.5	< 1.5	< 1.5	< 2.2
Isopropylbenzene	NS	NS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.82
p-Isopropyltoluene	NL	NL	< 0.31	< 0.31	< 0.31	< 0.31	< 1.1
Methylene Chloride	5	0.5	< 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	< 1.1
Naphthalene	100	10	< 1.7	< 1.7	< 1.7	< 1.7	< 1.6
n-Propylbenzene	NL	NL	< 0.25	< 0.25	< 0.25	< 0.25	< 0.77
Styrene	100	10	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.2	0.02	< 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	< 0.48
Tetrachloroethene	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.74
Toluene	800	160	< 0.69	< 0.69	< 0.69	< 0.69	< 0.44
1,2,4-Trichlorobenzene	70	14	< 0.98	< 0.98	< 0.98	< 0.98	< 1.7
1,2,3-Trichlorobenzene	NL	NL	< 1.8	< 1.8	< 1.8	< 1.8	< 2.7
1,1,1-Trichloroethane	200	40	< 0.33	< 0.33	< 0.33	< 0.33	< 0.84
1,1,2-Trichloroethane	5	0.5	< 0.34	< 0.34	< 0.34	< 0.34	< 0.48
Trichloroethene (TCE)	5	0.5	< 0.33	< 0.33	< 0.33	< 0.33	< 0.47
Trichlorofluoromethane	NL	NL	< 0.71	< 0.71	< 0.71	< 0.71	< 0.87
1,2,3-Trichloropropane	60	12	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	--	--	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
1,3,5-Trimethylbenzene	--	--	< 1.4	< 1.4	< 1.4	< 1.4	< 1.5
Total Trimethylbenzene	480	96	< 2.2	< 2.2	< 2.2	< 2.2	< 1.6
Vinyl Chloride	0.2	0.02	< 0.18	< 0.18	< 0.18	< 0.18	< 0.17
m&p-Xylene	--	--	< 0.69	< 0.69	< 0.69	< 0.69	< 2.2
o-Xylene	--	--	< 0.63	< 0.63	< 0.63	< 0.63	< 0.9
Total Xylenes	2,000	400	< 0.69	< 0.69	< 0.69	< 0.69	< 0.9
RCRA Metals (mg/L)							
Antimony	0.006	0.0012	NA	NA	NA	NA	NA
Arsenic	0.01	0.001	NA	NA	NA	NA	NA
Barium	2	0.4	NA	NA	NA	NA	NA
Beryllium	0.004	0.0004	NA	NA	NA	NA	NA
Cadmium	0.005	0.0005	NA	NA	NA	NA	NA
Chromium	0.1	0.01	NA	NA	NA	NA	NA
Copper	1.3	0.13	NA	NA	NA	NA	NA
Iron	0.3	0.15	NA	NA	NA	NA	NA
Lead	0.015	0.0015	NA	NA	NA	NA	NA
Manganese	0.05	0.025	NA	NA	NA	NA	NA
Mercury	0.002	0.0002	NA	NA	NA	NA	NA
Nickel	0.1	0.02	NA	NA	NA	NA	NA
Selenium	0.05	0.01	NA	NA	NA	NA	NA
Sliver	0.05	0.01	NA	NA	NA	NA	NA
Sodium	increase of 10		NA	NA	NA	NA	NA
Thallium	0.002	0.0004	NA	NA	NA	NA	NA
Zinc	5	2.5	NA	NA	NA	NA	NA
Poychlorinated Biphenyls (PCBs) (µg/L):							
Aroclor-1016	--	--	NA	NA	NA	NA	NA
Aroclor-1221	--	--	NA	NA	NA	NA	NA
Aroclor-1232	--	--	NA	NA	NA	NA	NA
Aroclor-1242	--	--	NA	NA	NA	NA	NA
Aroclor-1248	--	--	NA	NA	NA	NA	NA
Aroclor-1254	--	--	NA	NA	NA	NA	NA
Aroclor-1260	--	--	NA	NA	NA	NA	NA
Total PCBs	0.03	0.003	NA	NA	NA	NA	NA
Field Screening Measurements							
pH (IU)	--	--	7.21	7.61	7.45	7.95	7.99
Conductivity (uS)	--	--	468	636	762	754	810
Temperature (^{o}C)	--	--	10.06	12.7	14.3	11.85	8.8
Dissolved Oxygen (ppm)	--	--	NM	2.83	1.34	5.53	7.64
Redox Potential (mV)	--	--	100.3	148	206	-27.2	-160.9

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 4
POTABLE WELL MONITORING WORK PLAN, 4th QUARTER 2014 UPDATE

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TABLE 4
POTABLE WELL MONITORING WORK PLAN
4th QUARTER 2014 UPDATE
SUMMARY OF QUARTERLY POTABLE WELL SAMPLING
FORMER TOWN OF NEWTON GRAVEL PIT
MANITOWOC, WISCONSIN

Well Address	1st Quarter May 2014	Notes Based on Results from Q1:	2nd Quarter August 2014	Notes Based on Results from Q2:	3rd Quarter November 2014	Notes Based on Results from Q3:	4th Quarter February 2015	Notes Based on Results from Q4:
Target Zone Wells								
3617(3621) Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
3701 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
3815 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
3817 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
3825 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
4025 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
4101 Viebahn St	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Target	1	
4141 Viebahn St 2717 CTH CR	na	Q1, new DG well, 2 properties served by 1 well	1	Q2, moved from DG to Target	1		1	
3303 Hecker Rd.	1	Q1, moved from Sent. to Target	0	not sampled	1		1	
3327 Hecker Rd.	1		1		1		1	
3461(3417) Hecker Rd.	1		1		1		1	
3702 Hecker Rd.	1		1		1		1	
2734(2804) CTH CR	1	Q1, moved from DG to Target	1		1		1	
2916 CTH CR	1		1		1		1	
3403 CTH CR	1		1		1		1	
3504 CTH CR	1		1		1	Replacement well not installed yet	1	
3618 CTH CR	1		1		1		1	
4002 Thunder Ridge	O	Q1, not sampled, non responsive	1		O	Q3, not sampled, non responsive	O	Q4, not sampled, non responsive
4005 Thunder Ridge	1	Q1, moved from DG to Target	1		1		1	
4010 Thunder Ridge	1	Q1, moved from DG to Target	1		O	Q3, not sampled, non responsive	1	
4027 Thunder Ridge	1	Q1, moved from DG to Target	1		1		1	
4101 Thunder Ridge	na	Q1, new DG well	1	Q2, moved from DG to Target	1		1	
4111 Thunder Ridge	na	Q1, new DG well	1	Q2, moved from DG to Target	1		1	
3921 Black Hawk Ct.	1		1		1		1	
4159 Silver Creek Rd.	1		1		1		1	
3027 Orchard Ln.	1		1		1		1	
Replacement Wells								
3515 Hecker Rd.	1		1		1	Q3, moved from Target to Replacement	1	
3518 Hecker Rd.	1		1		1	Q3, moved from Target to Replacement	1	
3609 Hecker Rd.	1		1		1	Q3, moved from Target to Replacement	1	
3023 CTH CR	1		1		1	Q3, moved from Target to Replacement	1	
3120 CTH CR	1		1		1	Q3, moved from Target to Replacement	1	
Sentinel Zone Wells								
4219 Viebahn St	na	Q1, new DG well	1	Q2, moved from DG to Sentinal				
3121 Hecker Rd.	1							
3320 Hecker Rd.	1							
3625 Hecker Rd.	1							
3720 Hecker Rd.	1							
2706 CTH CR	na	Q1, new DG well	1	Q2, moved from DG to Sentinel				
2716 CTH CR	na	Q1, new DG well	1	Q2, moved from DG to Target	1	Q3, moved from Target to Sentinel		
2832 (2904) CTH CR	1					Q3, perm. Sentinel to targ. Sentinel		
2911 CTH CR	1	Q1, moved from DG to Sentinal				Q3, perm. Sentinel to targ. Sentinel		
2917 CTH CR	1					Q3, perm. Sentinel to targ. Sentinel		
3224 CTH CR	1		1		1	Q3, moved from Target to targ. Sentinel		
3312 CTH CR	1		1		1	Q3, moved from Target to targ. Sentinel		
3322 CTH CR	1		1		1	Q3, moved from Target to targ. Sentinel		
3412 CTH CR	O	Q1, not sampled, non responsive	1		1	Q3, moved from Target to targ. Sentinel		
3422 CTH CR	1		1		1	Q3, moved from Target to targ. Sentinel		
3523 CTH CR	1					Q3, perm. Sentinel to targ. Sentinel		
3533 CTH CR	1					Q3, perm. Sentinel to targ. Sentinel		
3611 CTH CR	1	Q1, moved from DG to Sentinal				Q3, perm. Sentinel to targ. Sentinel		
3626(3626B) CTH CR	1					Q3, perm. Sentinel to targ. Sentinel		
3627 CTH CR	1					Q3, moved from Historical to targ. Sentinel		
4024 CTH CR	1							
4101 CTH CR	1	Q1, moved from DG to Sentinal						
4127 Thunder Ridge Rd.	1		na		na	Q3, moved from Historical to Sentinel		
3128 Orchard Ln.	1							
3420 Orchard Ln.	1							
3524 Orchard Ln.	1							
3318 Orchard Ln.	1	Q1, moved from DG to Sentinel						
3812 Silver Creek	1	Q1, moved from DG to Sentinal						
3902 Silver Creek Rd.	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Sentinel		
4004 Silver Creek Rd.	na		na	Q2, new DG well for Q3	1	Q3, moved from DG to Sentinel		
4156 Silver Creek	1	Q1, moved from DG to Sentinal						
Data Gap Wells								
3911 Blackhawk Ct	O	Q1, not sampled, non responsive	O	Q2, not sampled, non responsive	O	Q3, not sampled, non responsive	1	Q4, not sampled, not available
Historically Sampled Wells								
5107 Veibahn St.	na	Q1, not sampled, upgradient						
2925 Fricke Rd.	na	Q1, not sampled, upgradient						
3107 Fricke Rd.	na	Q1, not sampled, upgradient						
3610 Gass Lake Rd.	na	Q1, not sampled, upgradient						
3609 M&M Ln.	na	Q1, not sampled, upgradient						
3717 M&M Ln.	na	Q1, not sampled, upgradient						
3804 M&M Ln.	na	Q1, not sampled, upgradient						
3114 Hecker Rd.	1		na		na	Q3, moved from Sentinel to Historical		
3627 Hecker Rd.	1		na		na	Q3, moved from Sentinel to Historical		
2881 CTH CR	O	Q1, not sampled, out of service						
3904 CTH CR	1							
4212 Silver Creek 4220 Silver Creek 4236 Silver Creek	1	Q1, moved from DG to Historical - 3 properties served by 1 well, 4212 Silver Crk						
4314 Silver Creek Rd.	1							
4315 Silver Creek Rd.	1							
4609 Silver Creek Rd.	1							
4620 Silver Creek Rd. (two wells)	2							
4752 Silver Creek Rd.	1							
4808 Silver Creek Rd.	1							
5202 Silver Creek Rd.	na	Q1, not sampled, upgradient						
3523 Orchard Ln.	1		na		na	Q3, moved from Sentinel to Historical		

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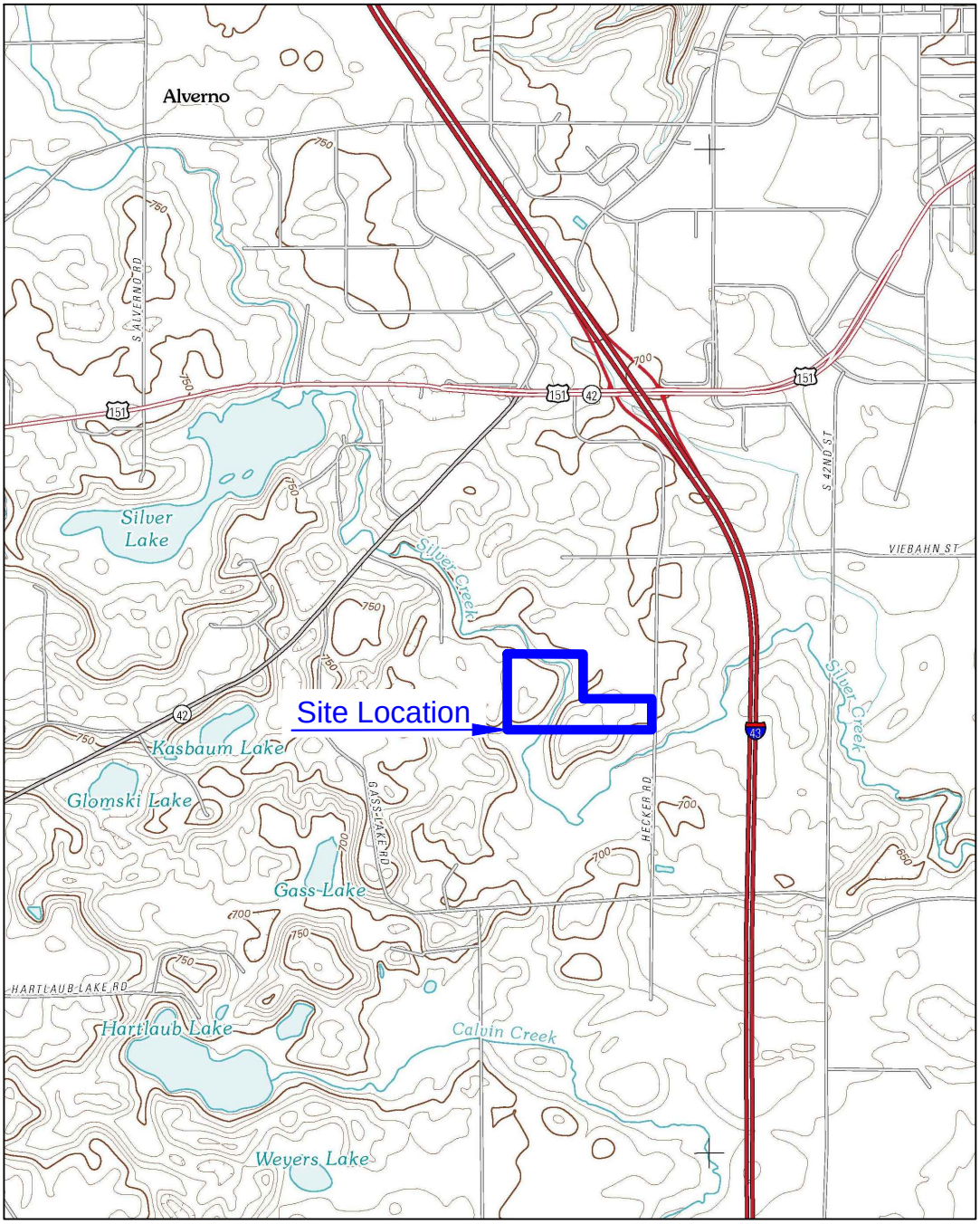
Figures:

Figure 1; Site Location
Figure 2; 2015 Fourth Quarter Potable Well VOC Sampling Results



SCALE 1:24 000

KILOMETERS: 1 0.5 0 1 2
METERS: 1000 500 0 1000 2000
MILES: 1 0.5 0 1
FEET: 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

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

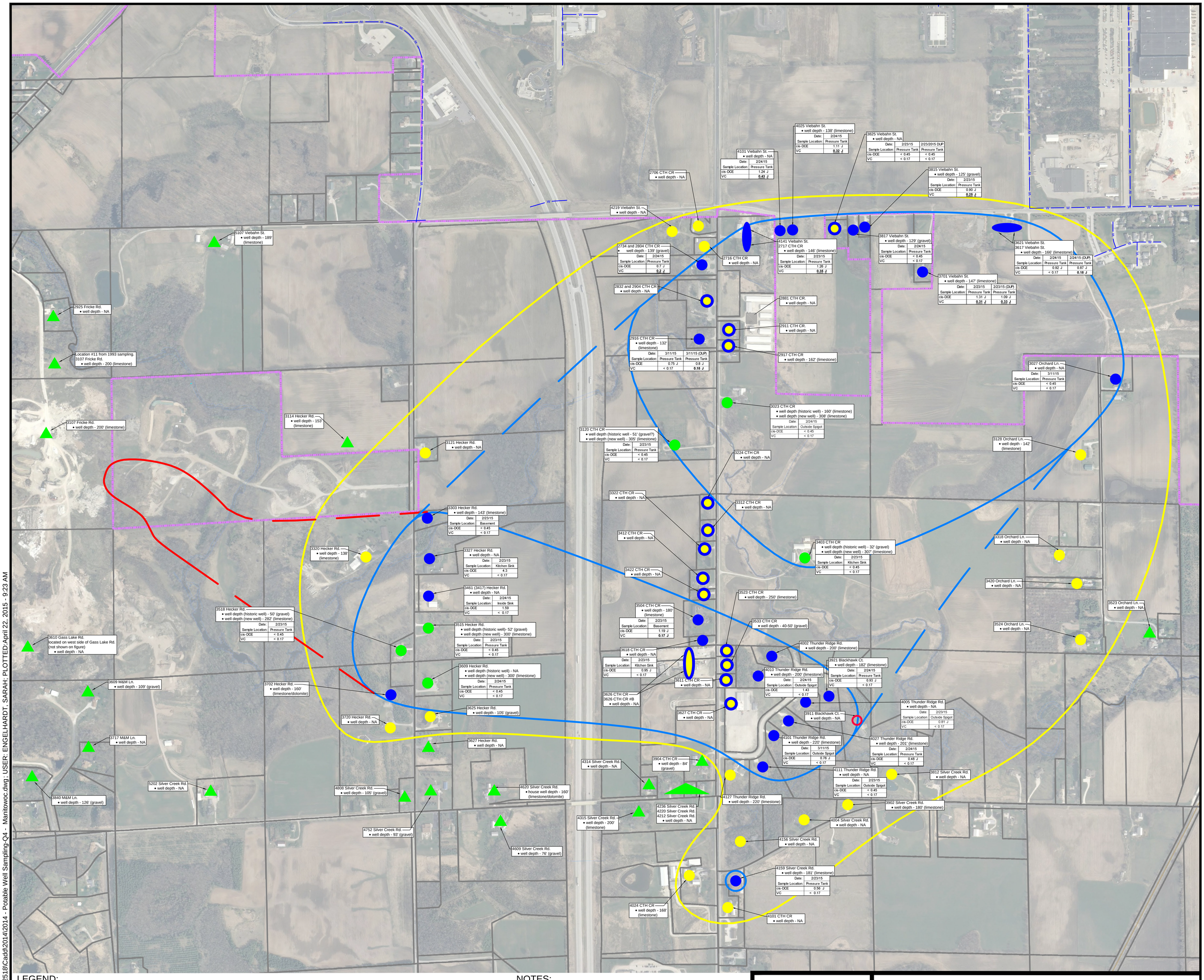
Map Date: 2010

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	4/14/2015	



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
- -REPLACEMENT WELL WITHIN TARGET ZONE
- -UPGRADIENT AND HISTORICALLY SAMPLED WELLS
- TARGET ZONE
- SENTINEL ZONE
- FORMER GRAVEL PIT ZONE
- DATA GAP SAMPLE LOCATION
- WELL OUT OF SERVICE

NOTES:

1. VOCs detected from likely laboratory or sampling cross-contamination not reported on figure.
2. VOC values for Q3-2014 sampling event reported on figure.
3. Analytical data presented in µg/L.
   - VOCs = Volatile Organic Compounds
   - cis-DCE = cis-1,2-Dichloroethene
   - VC = Vinyl Chloride
   - **bold** = PAL exceedance
   - **bold and underlined** = ES exceedance
   - PAL = Preventive Action Limit
   - ES = Enforcement Standard

N

0' 150' 300' 600'
SCALE

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Milwaukee, WI
414.944.6080

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FORMER NEWTON GRAVEL PIT

2014 QUARTER 4 POTABLE WELL SAMPLING RESULTS

Project Number: 60311767
Drawn By: SAE
Date: 4/22/2015

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 RIVER CENTER DRIVE
MILWAUKEE, WI 53212

Report Date *03-Mar-15*

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539A
Sample ID 3518 HECKER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539A
Sample ID 3518 HECKER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	108	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539B
Sample ID 3515 HECKER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	101	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539C
Sample ID 3327 HECKER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	4.3	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	84	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539D
Sample ID 2717 CTH CR
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	1.26 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	0.35 "J"	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539E
Sample ID 3701 VIEBAHN
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	1.31 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	3
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	3
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	0.31 "J"	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539F
Sample ID 3701 VIEBAHN DUP
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	1.09 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	0.33 "J"	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	96	REC %			1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	84	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539G
Sample ID 3303 HECKER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	92	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	104	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539H
Sample ID 3120 CTH CR
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	89	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539I
Sample ID 3618 CTH CR
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	0.95 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539J
Sample ID 3403 CTH CR
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539K
Sample ID 4159 SILVER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	0.56 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	104	REC %			1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	87	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	109	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539L
Sample ID 3825 VIEBAHN
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	111	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539M
Sample ID 3825 VIEBAHN DUP
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539N
Sample ID 3504 CTH CR
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/26/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/26/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/26/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/26/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/26/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/26/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/26/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/26/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/26/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/26/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/26/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/26/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/26/2015	CJR	1
cis-1,2-Dichloroethene	1.19 "J"	ug/l	0.45	1.4	1	8260B		2/26/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/26/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/26/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/26/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/26/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/26/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/26/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/26/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/26/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/26/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/26/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/26/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/26/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/26/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/26/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/26/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/26/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/26/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/26/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/26/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/26/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/26/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/26/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/26/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/26/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/26/2015	CJR	1
Vinyl Chloride	0.17 "J"	ug/l	0.17	0.54	1	8260B		2/26/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/26/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/26/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	90	REC %			1	8260B		2/26/2015	CJR	1
SUR - 4-Bromofluorobenzene	108	REC %			1	8260B		2/26/2015	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		2/26/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/26/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539O
Sample ID 4005 THUNDER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.81 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539P
Sample ID 4111 THUNDER
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539Q
Sample ID 3815 VIEBAHN
Sample Matrix Water
Sample Date 2/23/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.90 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	0.25 "J"	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	91	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539R
Sample ID 3817 VIEBAHN
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539S
Sample ID 4027 THUNDER
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.48 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	86	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	105	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	104	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539T
Sample ID 3921 BLACKHAWK
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.93 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539U
Sample ID 4101 VIEBAHN
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	1.24 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	0.43 "J"	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	101	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539V
Sample ID 4025 VIEBAHN
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	1.11 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	0.32 "J"	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	86	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539W
Sample ID 3609 HECKER
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	106	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539X
Sample ID 3417 HECKER
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	1.59	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	109	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	102	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539Y
Sample ID 2734 CTH CR
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.70 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	0.20 "J"	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	112	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	102	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 5028539Z
Sample ID 3621 VIEBAHN
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	2
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.92 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	95	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 528539AA
Sample ID 3621 VIEBAHN DUP
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	0.87 "J"	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	0.18 "J"	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	107	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	97	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	95	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 528539BB
Sample ID 4010 THUNDER
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	1.43	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	93	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 528539CC
Sample ID 3023 CTH CR
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	88	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	106	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		2/27/2015	CJR	1

Project Name FMR NEWTON GRAVEL PIT **Invoice #** E28539
Project #

Lab Code 528539DD
Sample ID TRIP BLANK
Sample Matrix Water
Sample Date 2/24/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		2/27/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		2/27/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		2/27/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		2/27/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		2/27/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		2/27/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		2/27/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		2/27/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		2/27/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		2/27/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		2/27/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		2/27/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		2/27/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		2/27/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		2/27/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		2/27/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		2/27/2015	CJR	1
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		2/27/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		2/27/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		2/27/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		2/27/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		2/27/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		2/27/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		2/27/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		2/27/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		2/27/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		2/27/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		2/27/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		2/27/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		2/27/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		2/27/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		2/27/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		2/27/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		2/27/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		2/27/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		2/27/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		2/27/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		2/27/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		2/27/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		2/27/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		2/27/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		2/27/2015	CJR	1
SUR - Toluene-d8	103	REC %			1	8260B		2/27/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	96	REC %			1	8260B		2/27/2015	CJR	1
SUR - 4-Bromofluorobenzene	104	REC %			1	8260B		2/27/2015	CJR	1
SUR - Dibromofluoromethane	104	REC %			1	8260B		2/27/2015	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.
2	Relative percent difference failed for laboratory spiked samples.
3	The matrix spike not within established limits.

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

Authorized Signature

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

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

Chain # No 2780

Page 1 of 3

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) Jordan J

Project (Name / Location): Former Newton Gravel Pit / Manitowoc, WI

Reports To:	Dave Henderson	Invoice To:	Dave Henderson
Company	AECOM	Company	AECOM
Address	1555 N. RiverCenter Dr. STE 214	Address	1555 N. RiverCenter Dr. STE 214
City State Zip	Milwaukee, WI 53212	City State Zip	Milwaukee, WI 53212
Phone	414-944-6190	Phone	414-944-6190
FAX	414-944-6081	FAX	414-944-6081

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 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/FID
S0785397A	3518 Hecker	2/23/15	915		X	N	3	GW	HCl													X		
B	3515 Hecker	2/23/15	945		X	N	3	GW	HCl													X		
C	3327 Hecker	2/23/15	1045		X	N	3	GW	HCl													X		
D	2717 CTH CR	2/23/15	1115		X	N	3	GW	HCl													X		
E	3701 Viebahn	2/23/15	1145		X	N	3	GW	HCl													X		
F	3701 Viebahn DUP	2/23/15	1145		X	N	3	GW	HCl													X		
G	3303 Hecker	2/23/15	1250		X	N	3	GW	HCl													X		
H	3120 CTH CR	2/23/15	1315		X	N	3	GW	HCl													X		
I	3618 CTH CR	2/23/15	1420		X	N	3	GW	HCl													X		
J	3403 CTH CR	2/23/15	1345		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
Seperate lab. report per Sample I.D.

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Dunham
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
Jordan J	0900	2/25/15			

Received in Laboratory By: Christopher R Time: 8:00 Date: 2/26/15

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

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

Chain # No 270[illegible]

Page 2 of 3

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)

Project (Name / Location): Former Newton Gravel Pit

Reports To: Dave Henderson	Invoice To: Dave Henderson
Company AECOM	Company AECOM
Address 1555 N. RiverCenter Dr. STE214	Address 1555 N. RiverCenter Dr. STE214
City State Zip Milwaukee, WI 53212	City State Zip Milwaukee, WI 53212
Phone 414-944-6190	Phone 414-944-6190
FAX 414-944-6081	FAX 414-944-6081

Lab I.D.	Sample I.D.	Collection Date	Collection Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation
502853[illegible]k	4159 Silver	2/23/15	1445		x	N	3	GW	HCl
L	3825 Viebahn	2/23/15	1515		x	N	3	GW	HCl
M	3805 Viebahn DUP	2/23/15	1515		x	N	3	GW	HCl
N	3504 CTH CR	2/23/15	1545		x	N	3	GW	HCl
O	4005 Thunder	2/23/15	1615		x	N	3	GW	HCl
P	4111 Thunder	2/23/15	1645		x	N	3	GW	HCl
Q	3815 Viebahn	2/23/15	1715		x	N	3	GW	HCl
R	3817 Viebahn	2/24/15	0850		x	N	3	GW	HCl
S	4027 Thunder	2/24/15	0915		x	N	3	GW	HCl
T	3921 Blackhawk	2/24/15	0945		x	N	3	GW	HCl

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	PID/FID
												X		
												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.)

Analysis per Contract
Individual lab reports per Sample I.D.

#3817 sampled through hose (rubber)

Sample Integrity - To be completed by receiving lab.
Method of Shipment: Dunham
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
	0900	2/25/15			

Received in Laboratory By: [signature] Time: 8:00 Date: 2/26/15

CHAIN OF CUSTODY RECORD

Synergy Environmental Lab, Inc.

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

Chain # Nº 2710

Page 3 of 3

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) Jordan

Project (Name / Location): Former Newton Gravel Pit / Manitowoc WI

Reports To: DAVE HENDERSON	Invoice To: DAVE HENDERSON
Company AECOM	Company AECOM
Address 1555 N. River Center Dr. STE214	Address 1555 N. RiverCenter Dr. STE 214
City State Zip Milwaukee, WI 53212	City State Zip Milwaukee, WI
Phone 414-944-6190	Phone 414-944-6190
FAX 414-944-6081	FAX 414-944-6081

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 542.2)	VOC (EPA 8260)	8-RCRA METALS	PID/ FID
50285394	4101 Viebahn	2/24/15	1015		X	N	3	GW	HCl													X		
V	4025 Viebahn	2/24/15	1045		X	N	3	GW	HCl													X		
W	3609 Hecker	2/24/15	1125		X	N	3	GW	HCl													X		
X	3417 Hecker	2/24/15	1145		X	N	3	GW	HCl													X		
Y	2739 CTH CR	2/24/15	1215		X	N	3	GW	HCl													X		
Z	3621 ~~CTH CR~~ Viebahn	2/24/15	1325		X	N	3	GW	HCl													X		
AA	3621 ~~CTH E~~ Viebahn DUP	2/24/15	1325		X	N	3	GW	HCl													X		
BB	4010 Thunder	2/24/15	1355		X	N	3	GW	HCl													X		
CC	3023 CTH CR	2/24/15	1425		X	N	3	GW	HCl													X		
DD	Trip Blank	2/23/15	0000		X	N	2	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
- Seperate lab report per Sample I.D.

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Dunham

Temp. of Temp. Blank ____ °C On Ice: X

Cooler seal intact upon receipt: X Yes ____ No

Relinquished By: (sign)	~~Time~~ Date	~~Date~~ Time	Received By: (sign)	Time	Date
Jordan	2/25/15	0800			

Received in Laboratory By: Christopher Rose Time: 8:00 Date: 2/26/15

Synergy Environmental Lab, INC.

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

DAVE HENDERSON
AECOM
1555 N RIVER CENTER DRIVE
MILWAUKEE, WI 53212

Report Date *19-Mar-15*

Project Name NEWTON GRAVEL PIT **Invoice #** E28620
Project #

Lab Code 5028620A
Sample ID 2916 CTH CR
Sample Matrix Water
Sample Date 3/11/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		3/17/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		3/17/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		3/17/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		3/17/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		3/17/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		3/17/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		3/17/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		3/17/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		3/17/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		3/17/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
cis-1,2-Dichloroethene	0.75 "J"	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		3/17/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		3/17/2015	CJR	8
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		3/17/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		3/17/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		3/17/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		3/17/2015	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E28620
Project #

Lab Code 5028620A
Sample ID 2916 CTH CR
Sample Matrix Water
Sample Date 3/11/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		3/17/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		3/17/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		3/17/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		3/17/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		3/17/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		3/17/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		3/17/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		3/17/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		3/17/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		3/17/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		3/17/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		3/17/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		3/17/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		3/17/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		3/17/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		3/17/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		3/17/2015	CJR	1
SUR - Toluene-d8	101	REC %			1	8260B		3/17/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	99	REC %			1	8260B		3/17/2015	CJR	1
SUR - 4-Bromofluorobenzene	99	REC %			1	8260B		3/17/2015	CJR	1
SUR - Dibromofluoromethane	100	REC %			1	8260B		3/17/2015	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E28620
Project #

Lab Code 5028620B
Sample ID 2916 CTH CR DUP
Sample Matrix Water
Sample Date 3/11/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		3/17/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		3/17/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		3/17/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		3/17/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		3/17/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		3/17/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		3/17/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		3/17/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		3/17/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		3/17/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
cis-1,2-Dichloroethene	0.80 "J"	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		3/17/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		3/17/2015	CJR	8
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		3/17/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		3/17/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		3/17/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		3/17/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		3/17/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		3/17/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		3/17/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		3/17/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		3/17/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		3/17/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		3/17/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		3/17/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		3/17/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		3/17/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		3/17/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		3/17/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		3/17/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		3/17/2015	CJR	1
Vinyl Chloride	0.18 "J"	ug/l	0.17	0.54	1	8260B		3/17/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		3/17/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		3/17/2015	CJR	1
SUR - Dibromofluoromethane	98	REC %			1	8260B		3/17/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	102	REC %			1	8260B		3/17/2015	CJR	1
SUR - 4-Bromofluorobenzene	103	REC %			1	8260B		3/17/2015	CJR	1
SUR - Toluene-d8	99	REC %			1	8260B		3/17/2015	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E28620
Project #

Lab Code 5028620C
Sample ID 3027 ORCHARD
Sample Matrix Water
Sample Date 3/11/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		3/17/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		3/17/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		3/17/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		3/17/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		3/17/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		3/17/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		3/17/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		3/17/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		3/17/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		3/17/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
cis-1,2-Dichloroethene	< 0.45	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		3/17/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		3/17/2015	CJR	8
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		3/17/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		3/17/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		3/17/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		3/17/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		3/17/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		3/17/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		3/17/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		3/17/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		3/17/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		3/17/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		3/17/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		3/17/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		3/17/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		3/17/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		3/17/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		3/17/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		3/17/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		3/17/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		3/17/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		3/17/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		3/17/2015	CJR	1
SUR - Toluene-d8	98	REC %			1	8260B		3/17/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	97	REC %			1	8260B		3/17/2015	CJR	1
SUR - 4-Bromofluorobenzene	102	REC %			1	8260B		3/17/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		3/17/2015	CJR	1

Project Name NEWTON GRAVEL PIT **Invoice #** E28620
Project #

Lab Code 5028620D
Sample ID 4101 THUNDER
Sample Matrix Water
Sample Date 3/11/2015

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
VOC's										
Benzene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
Bromobenzene	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Bromodichloromethane	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Bromoform	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
tert-Butylbenzene	< 1.1	ug/l	1.1	3.4	1	8260B		3/17/2015	CJR	1
sec-Butylbenzene	< 1.2	ug/l	1.2	3.8	1	8260B		3/17/2015	CJR	1
n-Butylbenzene	< 1	ug/l	1	3.3	1	8260B		3/17/2015	CJR	1
Carbon Tetrachloride	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chlorobenzene	< 0.46	ug/l	0.46	1.4	1	8260B		3/17/2015	CJR	1
Chloroethane	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
Chloroform	< 0.43	ug/l	0.43	1.4	1	8260B		3/17/2015	CJR	1
Chloromethane	< 1.9	ug/l	1.9	6	1	8260B		3/17/2015	CJR	1
2-Chlorotoluene	< 0.4	ug/l	0.4	1.3	1	8260B		3/17/2015	CJR	1
4-Chlorotoluene	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
1,2-Dibromo-3-chloropropane	< 1.4	ug/l	1.4	4.5	1	8260B		3/17/2015	CJR	1
Dibromochloromethane	< 0.45	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
1,4-Dichlorobenzene	< 0.49	ug/l	0.49	1.6	1	8260B		3/17/2015	CJR	1
1,3-Dichlorobenzene	< 0.52	ug/l	0.52	1.6	1	8260B		3/17/2015	CJR	1
1,2-Dichlorobenzene	< 0.46	ug/l	0.46	1.5	1	8260B		3/17/2015	CJR	1
Dichlorodifluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2-Dichloroethane	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethane	< 1.1	ug/l	1.1	3.6	1	8260B		3/17/2015	CJR	1
1,1-Dichloroethene	< 0.65	ug/l	0.65	2.1	1	8260B		3/17/2015	CJR	1
cis-1,2-Dichloroethene	0.76 "J"	ug/l	0.45	1.4	1	8260B		3/17/2015	CJR	1
trans-1,2-Dichloroethene	< 0.54	ug/l	0.54	1.7	1	8260B		3/17/2015	CJR	1
1,2-Dichloropropane	< 0.43	ug/l	0.43	1.37	1	8260B		3/17/2015	CJR	1
2,2-Dichloropropane	< 3.1	ug/l	3.1	9.8	1	8260B		3/17/2015	CJR	8
1,3-Dichloropropane	< 0.42	ug/l	0.42	1.3	1	8260B		3/17/2015	CJR	1
Di-isopropyl ether	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
EDB (1,2-Dibromoethane)	< 0.63	ug/l	0.63	2	1	8260B		3/17/2015	CJR	1
Ethylbenzene	< 0.71	ug/l	0.71	2.3	1	8260B		3/17/2015	CJR	1
Hexachlorobutadiene	< 2.2	ug/l	2.2	7.1	1	8260B		3/17/2015	CJR	1
Isopropylbenzene	< 0.82	ug/l	0.82	2.6	1	8260B		3/17/2015	CJR	1
p-Isopropyltoluene	< 1.1	ug/l	1.1	3.5	1	8260B		3/17/2015	CJR	1
Methylene chloride	< 1.3	ug/l	1.3	4.2	1	8260B		3/17/2015	CJR	1
Methyl tert-butyl ether (MTBE)	< 1.1	ug/l	1.1	3.7	1	8260B		3/17/2015	CJR	1
Naphthalene	< 1.6	ug/l	1.6	5.2	1	8260B		3/17/2015	CJR	1
n-Propylbenzene	< 0.77	ug/l	0.77	2.4	1	8260B		3/17/2015	CJR	1
1,1,2,2-Tetrachloroethane	< 0.52	ug/l	0.52	1.7	1	8260B		3/17/2015	CJR	1
1,1,1,2-Tetrachloroethane	< 0.48	ug/l	0.48	1.5	1	8260B		3/17/2015	CJR	1
Tetrachloroethene	< 0.74	ug/l	0.74	2.4	1	8260B		3/17/2015	CJR	1
Toluene	< 0.44	ug/l	0.44	1.4	1	8260B		3/17/2015	CJR	1
1,2,4-Trichlorobenzene	< 1.7	ug/l	1.7	5.6	1	8260B		3/17/2015	CJR	1
1,2,3-Trichlorobenzene	< 2.7	ug/l	2.7	8.6	1	8260B		3/17/2015	CJR	1
1,1,1-Trichloroethane	< 0.84	ug/l	0.84	2.7	1	8260B		3/17/2015	CJR	1
1,1,2-Trichloroethane	< 0.48	ug/l	0.48	1.52	1	8260B		3/17/2015	CJR	1
Trichloroethene (TCE)	< 0.47	ug/l	0.47	1.5	1	8260B		3/17/2015	CJR	1
Trichlorofluoromethane	< 0.87	ug/l	0.87	2.8	1	8260B		3/17/2015	CJR	1
1,2,4-Trimethylbenzene	< 1.6	ug/l	1.6	5	1	8260B		3/17/2015	CJR	1
1,3,5-Trimethylbenzene	< 1.5	ug/l	1.5	4.8	1	8260B		3/17/2015	CJR	1
Vinyl Chloride	< 0.17	ug/l	0.17	0.54	1	8260B		3/17/2015	CJR	1
m&p-Xylene	< 2.2	ug/l	2.2	6.9	1	8260B		3/17/2015	CJR	1
o-Xylene	< 0.9	ug/l	0.9	2.9	1	8260B		3/17/2015	CJR	1
SUR - Toluene-d8	100	REC %			1	8260B		3/17/2015	CJR	1
SUR - 1,2-Dichloroethane-d4	100	REC %			1	8260B		3/17/2015	CJR	1
SUR - 4-Bromofluorobenzene	100	REC %			1	8260B		3/17/2015	CJR	1
SUR - Dibromofluoromethane	99	REC %			1	8260B		3/17/2015	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.
8	Closing calibration standard not within established limits.

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

Authorized Signature

CHAIN OF CUSTODY RECORD

Synergy
Environmental Lab, Inc.

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

Chain # No 2790

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)	D.S. Henderson

Project (Name / Location):	Newton Gravel Pit - Potable wells		
Reports To:	Dave Henderson	Invoice To:	Same
Company	AECOM	Company	
Address	1555 Rivercenter Dr	Address	
City State Zip	Milw WI 53212	City State Zip	
Phone	414 944 6190	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
50286201 A	2916 CTH CR	3/11/15	8:10		X	N	3	DW	HCl
B	2916 CTH CR DUP		8:10		"				
C	3027 ORCHARD		1:35		"				
D	4161 Thunder	"	2:10		"				

Analysis Requested

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
												X	
												X	
												X	
												X	

Other Analysis

PID/FID

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

Report Individually

Sample Integrity - To be completed by receiving lab.

Method of Shipment: Hudson

Temp. of Temp. Blank ____ °C On Ice: ✓

Cooler seal intact upon receipt: ✓ Yes ____ No

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

Received in Laboratory By: [signature] Time: 8:00 Date: 3/17/15