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## **GROUNDWATER MONITORING REPORT**

**DairiConcepts Site**  
W888 Chili Road, Chili,  
Clark County, Wisconsin

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AET Project No. 03-05510  
WDNR BRRTS No. 03-10-545212  
PECFA No. 54420-9999-88

**Date:**

June 30, 2017

**Prepared for:**

Dairy Farmers of America  
800 W. Tampa Street  
Springfield, MO 65802





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June 30, 2017

Dairy Farmers of America  
800 W. Tampa Street  
Springfield, MO 65802

Attn: Ms. Stacy Doing  
[sdoing@dfamilk.com](mailto:sdoing@dfamilk.com)

RE: Groundwater Monitoring Report  
DairiConcepts Site, W888 Chili Road, Chili, Clark County, Wisconsin.  
WDNR BRRTS No. 03-10-545212. PECFA No. 54420-9999-88.  
AET Project No. 03-05510.

Dear Ms. Doing:

American Engineering Testing, Inc. has completed Groundwater Monitoring services at the above-referenced property in Chili, Wisconsin. These services were performed in accordance with our approved proposal dated March 28, 2016. On your behalf, we are also forwarding the report to the Wisconsin Department of Natural Resources (WDNR) at this time for review.

We appreciate the opportunity to serve you on this project. If you have any questions regarding the information presented in this report, or if we can be of additional service, please contact me.

Sincerely,  
**American Engineering Testing, Inc.**

A handwritten signature in blue ink that reads "michael k. neal".

Michael K. Neal, Professional Hydrologist  
Geomorphologist

Phone: (715) 861-5045, Cellular Phone (715) 894-6455  
E-mail: [mneal@amengtest.com](mailto:mneal@amengtest.com)

cc: Gena Keenan, WDNR, 1300 W. Clairemont Avenue, Eau Claire, WI 54701

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**AET PROJECT NO. 03-05510**

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- B. Environmental Sampling Methods
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**GROUNDWATER MONITORING REPORT**  
**DAIRICONCEPTS SITE**  
**CHILI, WISCONSIN**

**AET PROJECT NO. 03-05510**

**EXECUTIVE SUMMARY**

American Engineering Testing, Inc. (AET) was authorized by Dairy Farmers of America (DFA) to conduct Soil Remediation and Groundwater Monitoring activities for the DairiConcepts plant property located at W888 Chili Road, Chili, Clark County, Wisconsin (the Site). The Wisconsin Department of Natural Resources (WDNR) has directed DFA, the property owner, to investigate and remediate the Site. The responsible party letter was issued on April 4, 2006 after soil and groundwater contamination was encountered at the Site.

The results of our initial site investigation indicated that petroleum impacts to soil are present on the Site in the area of a previous petroleum underground storage tank (UST) system. Petroleum-contaminated soils that exceed the WDNR NR 720 soil to groundwater residual contaminant levels (RCLs) are present in the former tank bed. Soil contamination previously extended from five feet below ground surface (bgs) to the groundwater table (12-15 feet bgs) in an area approximately 110 feet east/west by 30 feet north/south.

AET observed the removal of approximately 1,203 tons of contaminated soil from the area of monitoring well MW-4 and the former tank bed. Excavation soil sampling in the source area indicates that most of the soil contaminated at levels above NR 720 soil to groundwater RCLs has been removed. The presence of an underground fiber optic cable near MW-3A prevented expansion of the excavation to the west. Soil contamination from approximately four to at least 15 feet bgs remains in the area of MW-3A and likely extends beneath the pavement of Chili Road and County Highway Y. In our opinion, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.

Groundwater monitoring shows that petroleum constituents are present at concentrations exceeding NR 140 enforcement standards (ESs) in the source area and in the adjacent road right-of-ways in an area approximately 220 feet northwest-southeast and 125 feet wide. The extent of impact is defined by the lack of contamination in groundwater monitoring wells CMW-1, MW-4A, MW-7A, MW-W, MW-E, MW-6, MW-1A, MW-3, PZ-7, and MW-7. Petroleum constituent concentrations in the source wells are generally decreasing or stable over time, with the exception of methyl-tert-butyl ether (MTBE). No free product is present in any of the wells.

Based on these results, AET will continue to monitor the groundwater to evaluate the effects of soil remediation and the feasibility of natural attenuation as a remedial measure to attain Site closure.

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## **1.0 INTRODUCTION**

Dairy Farmers of America (DFA) authorized American Engineering Testing, Inc. (AET) to conduct soil remediation and groundwater monitoring activities on their plant property located at W888 Chili Road, Chili, Clark County, Wisconsin (the Site). **Figure 1** shows the Site location, and **Figure 2** shows the current Site layout.

**Appendix A** contains a list of the acronyms and abbreviations used in this report.

### **1.1 Purpose**

We have completed the scope of services for this project as required by the Wisconsin Department of Natural Resources (WDNR). AET's services have been performed in accordance with generally accepted practices of the profession undertaken in similar studies at the same time and in the same geographical area, and for the following purposes:

- To collect three additional quarterly rounds of groundwater samples to evaluate the effect of soil remediation on groundwater quality, the stability of the groundwater contamination plume, and the feasibility of using natural attenuation as a closure option for the remaining residual contamination; and
- To evaluate the need for further site remediation and/or continued groundwater monitoring.

## **2.0 BACKGROUND**

### **2.1 Site Description and Features**

The address for the Site is W888 Chili Road, and it is located in the southwest quarter of the southwest quarter of Section 23, Township 25 North, Range 1 East, in unincorporated Chili, Town of Fremont, Clark County, Wisconsin. The Site is a 1.06-acre lot located on the east side of County Highway Y, north of Chili Road. The Site operated as a dairy and cheese factory until the 1980s. Currently, the Site is occupied by the DairiConcepts plant, which produces dry cheese products. The town of Chili is served by potable well water supply and municipal sewer system. The former petroleum underground storage tank (UST) system was used to fuel dairy fleet vehicles and was removed in the 1980s.

At present, neighboring property uses include County Highway Y and commercial property to the west, residential property to the north, Chili Road and residential properties to the south, and municipal property (tennis courts and baseball field) to the east.

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### **2.2 Physical Setting**

The Site is located in the Central Plain Physiographic Province of central Wisconsin. Fluvial and glacial processes have been an important geologic agent in determining the surface geology and physiography of the Site, and it is situated on alluvial and glacial deposits.

Soils encountered at the Site are primarily silts and clays from the surface to approximately 12 feet below ground surface (bgs). Bedrock was encountered in all of the soil borings, and the excavation completed at the Site, at approximately 12 feet bgs. Regionally, bedrock consists of Cambrian period sandstones with some dolomites and shales. Bedrock encountered beneath the Site consists of sandstone.

Depth to groundwater during the last three rounds of monitoring ranges from 3.5 to 12 feet bgs in the monitoring wells. Topography at the Site is relatively level. Groundwater elevation data collected from the monitoring wells suggests that the water table is relatively flat and that groundwater flow is controlled by the pumping of water from a potable supply well in the vicinity of the Site.

### **2.3 Previous Environmental Reports**

Earth Tech completed a site investigation for the WDNR in response to petroleum detection in a residential potable well located at the former Krueger residence, W887 Chili Road (currently the DairiConcepts office) in the town of Chili. The results of the investigation were included in their reports of Project No. 82060 dated November 15, 2005 and March 2006. Refer to these reports for background and supplemental information. The site investigation was completed to gather sufficient subsurface information to assess permanent potable water supply well replacement options for the contaminated Krueger residential well and to confirm the source or sources of contamination that may have contributed to contamination of the residential well. The site investigation was completed from January 2004 to April 2006. The site investigation reports revealed the following:

- Subsurface materials consist of low-permeability sandy, silty clay from ground surface to approximately 10 to 16 feet bgs. Fractured sandstone bedrock of varying permeability underlies the clay to approximately 40 to 50 feet bgs. Granite bedrock underlies the sandstone.
- Soil and groundwater sampling confirmed three potential sources of petroleum contamination, including the former USTs located near the southwest corner of the DairiConcepts plant property, reported USTs in the area directly west of the Wolfe property garage, and the former UST located at the Chili Service garage.

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- NR 140 enforcement standard (ES) exceedances for benzene, 1,2-dichloroethane (DCA), naphthalene, toluene, and trimethylbenzenes (TMBs) were detected in groundwater samples collected from monitoring wells within and directly downgradient of the identified sources.
- In July 2005, free product was observed in monitoring well MW-4 adjacent to the southwest corner of the DairiConcepts plant property.
- Measured groundwater elevations indicated that the water table in the vicinity of the investigation area is nearly flat, thus generating negligible hydraulic gradient to drive groundwater flow laterally. A possible slight east or southeast flow trend was inferred; however, groundwater flow direction determination was inconclusive. A downward vertical gradient was observed between wells MW-7 and PZ-7.
- Private potable well pumping likely has a significant effect on horizontal groundwater movement within the investigation area. Hydraulic stress, due to water withdrawal within the groundwater cone of depression generated by pumping, would tend to influence groundwater (and contaminant) flow in the vicinity of the potable wells, especially in the absence of significant natural flow.
- Soil gas survey and continued groundwater sampling confirmed contamination from the three previously identified potential sources of petroleum contamination: the former USTs located near the southwest corner of the DairiConcepts property, reported USTs in the area directly west of the Wolfe property garage, and the former UST located at the Chili Service garage.
- Based on the soil gas survey and groundwater sampling analytical results, any potable well replacement on the former Krueger residential property drawing water from the sandstone aquifer will be at risk of future impacts from past petroleum releases in the area. However, a potable well installed on the southeastern portion of that property and drawing from the underlying fractured granite bedrock would appear to have less risk of future petroleum impacts due to the increased distance of the well from the former UST locations and potential limitations on further downward vertical migration of petroleum contamination through the sandstone aquifer presented by the apparent hydraulic characteristics of the sandstone aquifer and the presence of clay at the sandstone/granite bedrock interface, which may form a semi-pervious barrier between the sandstone and the fractured granite bedrock.
- Based on Earth Tech's investigation, there was an indication that a release of petroleum to the environment had occurred from three separate UST systems. The WDNR issued

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Responsible Party letters to DairiConcepts, Mr. Arnold Wolfe, and Chili Service Garage directing them to investigate and remediate their sites on April 4, 2006.

Tetra Tech completed a remedial investigation of the Site, and the results of the investigation are included in their reports of Project No. 1156332427 dated June 11, 2004 and February 11, 2009. Refer to these reports for background and supplemental information. The remedial investigation was completed to determine the degree and extent of soil contamination associated with the former UST system at the Site and to evaluate the potential for groundwater contamination. The remedial investigation reports revealed the following:

- The site investigation began in April 2006 and included the installation of ten soil borings and five groundwater monitoring wells. Five monitoring wells previously installed by Earth Tech were also used in the remedial investigation.
- Petroleum-contaminated soil is present on the Site in the area of the previous petroleum UST system and concentrations exceed the WDNR NR 720 generic residual contaminant levels (RCLs). Soil contamination extends from five feet bgs to the groundwater table (12-15 feet bgs) in an area approximately 110 feet east/west by 30 feet north/south. Soil contamination has affected groundwater quality in monitoring wells MW-3A and MW-4, located near the southwest corner of the Site.
- Active free product removal was conducted in wells MW-3A and MW-4. Product thickness ranging from 5 to 23 inches was observed during removal activities.
- Four quarterly rounds of groundwater sampling confirmed that petroleum-contaminated groundwater is present on the Site in the area of the previous petroleum UST system. Groundwater contamination extends off site to the west in the County Highway Y road right of way. Groundwater contamination exceeding the NR 140 ES is present within the sandstone bedrock and extends in a plume approximately 250 feet west-east by 100 feet wide surrounding monitoring wells MW-3A, MW-4, MW-4A, and MW-5A.
- A replacement potable well was installed at the former Krueger residence southeast of the Site. The well was constructed in the granite aquifer at a depth of 250 feet bgs.

AET completed additional remedial investigation activities on the Site, and the results of the additional investigation are included in our reports of Project No. 03-05510 dated July 11, 2013 and August 25, 2015. Refer to these reports for background and supplemental information. Continued remedial investigation was completed to determine the extent of groundwater contamination associated with the UST system and to evaluate the potential for groundwater remediation by natural attenuation. The remedial investigation reports revealed the following:

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- Two additional groundwater monitoring wells, MW-6A and MW-7A were installed on the adjacent property to define the extent of groundwater contamination to the west. Five quarterly rounds of groundwater samples were collected from May 2010 to July 2015.
- Free product was not observed in wells MW-3A or MW-4.
- Groundwater contamination exceeding the NR 140 ES is present within the sandstone bedrock and extends in a plume approximately 250 feet west-east by 100 feet wide surrounding monitoring wells MW-3A, MW-4, MW-4A, and MW-5A. MW-6A and MW-7A define the western extent of the contaminant impacts.
- The WDNR requested soil excavation in the source area and continued groundwater monitoring to bring the Site to closure.

AET completed a soil remediation and groundwater monitoring report on the Site, and the results are included in our report of Project No. 03-05510 dated September 9, 2016. Refer to that report for background and supplemental information. The purpose of the remedial action was to remove petroleum-contaminated soil in the source area to reduce the potential for continued groundwater impact from the contamination associated with the former UST system. The soil remediation and groundwater monitoring report revealed the following:

- In June 2016, approximately 1,203 tons of contaminated soil were removed from the former tank bed area, resulting in the removal of most of the soil contaminated at levels above NR 720 soil to groundwater and non-industrial direct contact RCLs.
- Residual soil contamination exists from approximately four feet bgs to the groundwater table (10-15 feet bgs) in an area approximately 30 feet east/west by 45 feet north/south and likely extends beneath the County Highway Y and Chili Road pavement. Except in the limited area around monitoring well MW-3A, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.
- Groundwater monitoring shows that petroleum constituents are present on and off site in the area that includes the previous petroleum UST system. Groundwater contamination extends in a plume approximately 400 feet by 150 feet surrounding monitoring wells MW-2A, MW-3A, MW-4R, MW-4A, MW-5A, MW-5, MW-W, and MW-10.
- Based on these results, AET recommended continued groundwater monitoring on a quarterly basis to determine a stable or decreasing contaminant plume.

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TESTING, INC.**3.0 GROUNDWATER MONITORING ACTIVITIES****3.1 Scope of Services**

The scope of this remedial action was initially defined in an approved AET proposal agreement with DFA on March 28, 2016. The implemented scope of services included the following:

- Obtain approval of costs from the WDNR PECFA program for reimbursable expenses to complete the required remedial activities.
- Prepare and administer a site-specific safety plan.
- Collect three of eight quarterly rounds of groundwater samples from 18 groundwater monitoring wells (MW-1A, MW-2A, MW-3, MW-3A, MW-4A, MW-4R, MW-5, MW-5A, MW-6, MW-6A, MW-7, MW-7A, PZ-7, MW-9, MW-10, MW-E, MW-W, & CMW-1). Analyze each sample for petroleum volatile organic compounds (PVOCs), 1,2-DCA, and naphthalene using EPA Method SW8260B. During each sampling event, collect groundwater elevation measurements from all wells.
- Properly abandon monitoring well MW-2A which was damaged beyond repair during street paving operations in May 2017.
- Prepare a groundwater monitoring report to document groundwater sampling results. The report will include groundwater flow maps, updated tables, and updated concentration graphs.

**3.2 Environmental Sampling Methods**

AET conducted groundwater sampling using the methods described on the Environmental Sampling Methods pages in **Appendix B**.

AET collected three rounds of groundwater samples from 18 groundwater monitoring wells by purging each well and collecting a sample using a disposable bailer. Bailer contents were emptied into the appropriately preserved containers, and all samples were packed in a cooler and shipped with the chain of custody record.

AET submitted groundwater samples to Test America laboratory for chemical analyses. Groundwater samples were analyzed for PVOCs, 1,2-DCA, and/or naphthalene by their respective EPA GC methods. Samples were collected in accordance with AET's Quality Assurance/Quality Control (QA/QC) guidelines.

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TESTING, INC.**3.3 Reference Standards**

For this report, we compare the analytical results to the baseline environmental regulatory standards in use by the WDNR. The reference standards are included in the results tables for comparison with assessment results. The media-specific standards are described below.

The following reference standards apply to potential contaminant exposures in groundwater:

- WAC NR 140 - Groundwater Quality Standards.

**4.0 PROJECT RESULTS****4.1 Field Observations**

On May 24, 2017 AET abandoned monitoring well MW-2A according to procedures outlined in Chapter NR 141.25 of the WAC following street paving operations that damaged the well beyond repair. A WDNR monitoring well abandonment form (Form 3300-005) is included in **Appendix C**.

Quarterly groundwater samples were collected on October 17, 2016, March 22, and June 1, 2017. Depth to groundwater was measured prior to purging and sampling each well. Depth to groundwater ranged from 3.5 to 11.5 feet bgs in the monitoring wells. Groundwater elevation data is summarized in **Table 1**. Free product was not observed in any of the wells during the sampling events.

**4.2 Laboratory Analysis**

**Appendix D** includes the laboratory analytical reports and chains-of-custody for this remedial action. Groundwater sample analytical results are summarized in **Table 2**.

**4.2.1 Groundwater Analytical Results**

The WDNR established groundwater preventive action limits (PALs) and ESs for selected compounds that are listed in WAC NR 140. If a contaminant concentration exceeds the PAL, the WDNR may require monitoring or additional investigation. If the concentration exceeds the ES, the WDNR may require monitoring or remediation.

The latest round of groundwater samples was collected on June 1, 2017 and contaminant concentrations exceeding ESs were detected in monitoring wells MW-3A, MW-4R, MW-5A, and MW-10.

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Benzene concentrations above the ES of five parts per billion (ppb) were detected in monitoring wells MW-3A (3,200 ppb), MW-4R (780 ppb), MW-5A (16 ppb), and MW-10 (87 ppb). A 1,2-dibromoethane (EDB) concentration above the ES of 0.05 ppb was detected in monitoring well MW-3A at 45 ppb. A 1,2-dichloroethane (DCA) concentration above the ES of five ppb was detected in monitoring well MW-4R at 89 ppb. Ethylbenzene concentrations above the ES of 700 ppb were detected in monitoring wells MW-3A (1,600 ppb), MW-4R (1,400 ppb), and MW-10 (740 ppb). Methyl-tert-butylether (MTBE) concentrations above the ES of 60 ppb were detected in monitoring wells MW-5A (300 ppb) and MW-10 (2,100 ppb). Naphthalene concentrations above the ES of 100 ppb were detected in monitoring wells MW-3A (450 ppb), MW-4R (360 ppb), and MW-10 (360 ppb). Toluene concentrations above the ES of 800 ppb were detected in monitoring wells MW-3A (12,000 ppb), MW-4R (2,300 ppb), and MW-10 (890 ppb). Total TMB concentrations above the ES of 480 ppb were detected in monitoring wells MW-3A (2,430 ppb), MW-4R (1,770 ppb), and MW-10 (960 ppb). Total xylene concentrations above the ES of 2,000 ppb were detected in monitoring wells MW-3A (8,100 ppb) and MW-4R (4,800 ppb).

Several PVOCS, 1,2-DCA, or naphthalene were detected in monitoring wells MW-4A, MW-5A, MW-7, MW-10 at concentrations above their respective PALs.

No PVOCS, 1,2-DCA, or naphthalene were detected in wells MW-W, MW-E, or CMW-1 at concentrations exceeding laboratory detection limits. Groundwater analytical results and groundwater elevation data are summarized in **Tables 1 and 2**, and depicted in **Figures 3,4, and 5**.

## **5.0 DISCUSSION AND OPINIONS**

### **5.1 Soil Contamination Conditions**

Petroleum-contaminated soil that exceeds the WDNR NR 720 soil to groundwater RCLs remains in the Chili Road and County Highway Y road right-of-ways in the area of monitoring well MW-3A. Remaining soil contamination extends from approximately four feet bgs to the groundwater table (10-15 feet bgs) in an area approximately 30 feet east/west by 45 feet north/south and likely extends beneath the County Highway Y and Chili Road pavement.

Petroleum-contaminated soil remains on the Site in the area of the previous petroleum UST system. Post remedial soil samples that exceed the WDNR NR 720 soil to groundwater RCLs were collected below the groundwater table and within the sandstone bedrock. Except in the limited area around monitoring well MW-3A, remaining soil contamination at the Site appears to be associated with the impacted groundwater smear zone.

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### **5.2 Groundwater Contamination Conditions**

Petroleum-contaminated groundwater is present on the Site in the area that includes the previous petroleum UST system. Groundwater contamination extends in a plume approximately 220 feet by 125 feet surrounding monitoring wells MW-3A, MW-4R, MW-5A, and MW-10.

Measured groundwater elevations from June 2017 indicated that the water table is nearly flat with a minimal hydraulic gradient. A possible east or west flow trend away from the Site was inferred during this round of sampling. A downward vertical gradient was observed between wells MW-7/PZ-7 and MW-E/MW-W. The extent of groundwater contamination and elevation data are depicted on **Figures 3, 4, and 5**.

We calculated the stability of the groundwater plume at MW-3A, MW-4R, MW-5A, and MW-10 using line graphs showing the concentration trends over time for various petroleum constituents. The line graphs were used to determine trends in the groundwater quality in these wells and the relationship to water table elevation. Petroleum constituent concentrations in the source wells show great variability over time. However, the concentrations generally exhibit a decreasing to stable trend over time with no free product present since 2014. MTBE shows an increasing trend in wells MW-5A and MW-10. There does not appear to be a direct correlation between groundwater elevation and contaminant concentrations. **Appendix E** includes concentration verses time graphs to illustrate these trends.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

Soil sampling results obtained during the source removal has indicated that most of the soil contaminated at levels above NR 720 soil to groundwater RCLs has been removed. Soil contamination from approximately four to at least 15 feet bgs remains in the area of MW-3A and likely extends beneath the pavement of Chili Road and County Highway Y. In our opinion, remaining soil contamination at the Site is associated with the impacted groundwater smear zone.

Groundwater monitoring shows that petroleum constituents remain on and off-site at concentrations exceeding the NR 140 ES. Based on the sampling results, AET will continue to monitor the groundwater on a quarterly basis to evaluate the effects of soil remediation and whether a downward trend in groundwater contaminant concentrations has been established to indicate the feasibility of natural attenuation as a remedial measure to attain Site closure.

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This remediation has been conducted under the supervision of an Environmental Professional and for the objectives described in the Purpose section of this report. AET's findings, opinions, conclusions, and recommendations are based on the Scope of Services defined in this report.

AET has endeavored to perform services for this project in a manner consistent with the level of skill and care ordinarily exercised by other members of the profession currently practicing in this area, under similar budgetary and time constraints. No warranty, express or implied, is made.

This report is based on our current understanding of the project and conditions at the Site. If conditions differing from our original understanding or findings are identified, AET should be consulted to determine if there are material impacts on our conclusions or recommendations.

Report Prepared By:

Michael K. Neal

Professional Hydrologist/Geomorphologist

Report Reviewed By:

Robert J. Wahlstrom, PE, PG

Principal Engineer/Geologist

"I, Michael K. Neal, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."



# Tables

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TABLE 1 (page 1 of 5)

## GROUNDWATER ELEVATIONS

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-1A	August 9, 2006	20.00	1234.83 1235.38	13.60	1221.23
	April 12, 2007			12.90	1221.93
	November 16, 2007			10.50	1224.33
	October 17, 2008			14.10	1220.73
	May 20, 2010			11.90	1222.93
	November 29, 2012			14.00	1220.83
	April 30, 2013			9.95	1224.88
	April 27, 2015			9.45	1225.38
	July 7, 2015			9.65	1225.18
	July 11, 2016			10.07	1225.31
	October 17, 2016			7.59	1227.79
	March 22, 2017			8.71	1226.67
	June 1, 2017			7.94	1227.44
MW-2A	August 9, 2006	20.00	1235.38	14.10	1221.28
	April 12, 2007			14.00	1221.38
	November 16, 2007			11.00	1224.38
	October 17, 2008			14.55	1220.83
	May 20, 2010			12.35	1223.03
	November 29, 2012			14.40	1220.98
	April 30, 2013			10.40	1224.98
	April 27, 2015			9.65	1225.73
	July 7, 2015			9.85	1225.53
	July 11, 2016			10.36	1225.02
	October 17, 2016			7.99	1227.39
	March 22, 2017			8.98	1226.40
	May 24, 2017			8.51	1226.87
MW-3	January 21, 2005	21.10	1233.54	12.99	1220.55
	January 27, 2005			13.29	1220.25
	June 21, 2005			10.04	1223.50
	July 21, 2005			11.40	1222.14
	January 23, 2006			12.95	1220.59
	August 9, 2006			12.45	1221.09
	April 12, 2007			11.65	1221.89
	November 16, 2007			9.10	1224.44
	October 17, 2008			12.80	1220.74
	May 20, 2010			10.50	1223.04
	November 29, 2012			12.55	1220.99
	April 30, 2013			8.40	1225.14
	April 27, 2015			7.80	1225.74
	July 7, 2015			8.00	1225.54
	July 11, 2016			8.54	1225.00
	October 17, 2016			6.08	1227.46
	March 22, 2017			7.15	1226.39
	June 1, 2017			6.35	1227.19

TABLE 1 (page 2 of 5)

## GROUNDWATER ELEVATIONS

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-3A	August 9, 2006	20.00	1235.89	13.60	1222.29
	April 12, 2007			13.70	1222.19
	November 16, 2007			10.75	1225.14
	October 17, 2008			14.50	1221.39
	May 20, 2010			11.70	1224.19
	November 29, 2012			14.20	1221.69
	April 30, 2013			10.10	1225.79
	April 27, 2015			8.70	1227.19
	July 7, 2015			8.70	1227.19
	July 11, 2016			8.55	1227.34
	October 17, 2016			7.23	1228.66
	March 22, 2017			7.82	1228.07
	June 1, 2017			7.50	1228.39
MW-4	January 21, 2005	21.20	1235.80	15.15	1220.65
	January 27, 2005			15.50	1220.30
	June 21, 2005			12.26	1223.54
	April 12, 2007			13.90	1221.90
	November 16, 2007			11.30	1224.50
	October 17, 2008			14.70	1221.10
	May 20, 2010			12.20	1223.60
	November 29, 2012			14.60	1221.20
	April 30, 2013			9.50	1226.30
	April 27, 2015			8.35	1227.45
	July 7, 2015			9.65	1226.15
MW-4R	July 11, 2016	20.00	1236.65 1236.83	11.06	1225.59
	October 17, 2016			9.09	1227.74
	March 22, 2017			10.01	1226.82
	June 1, 2017			9.23	1227.60
MW-4A	November 16, 2007	18.00	1235.58	10.75	1224.83
	October 17, 2008			13.35	1222.23
	May 20, 2010			12.20	1223.38
	November 29, 2012			14.40	1221.18
	April 30, 2013			10.70	1224.88
	April 27, 2015			9.60	1225.98
	July 7, 2015			9.65	1225.93
	July 11, 2016			10.15	1225.43
	October 17, 2016			7.68	1227.90
	March 22, 2017			8.78	1226.80
	June 1, 2017			7.83	1227.75

TABLE 1 (page 3 of 5)

## GROUNDWATER ELEVATIONS

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-5	April 29, 2005	21.70	1238.67	15.81	1222.86
	June 21, 2005			14.97	1223.70
	July 21, 2005			16.26	1222.41
	January 23, 2006			17.90	1220.77
	July 7, 2015			11.50	1227.17
	July 11, 2016			11.78	1226.89
	October 17, 2016			9.96	1228.71
	March 22, 2017			10.35	1228.32
	June 1, 2017			10.18	1228.49
MW-5A	November 16, 2007	18.00	1236.41	10.85	1225.56
	October 17, 2008			14.40	1222.01
	May 20, 2010			11.60	1224.81
	November 29, 2012			13.50	1222.91
	April 30, 2013			10.10	1226.31
	April 27, 2015			9.20	1227.21
	July 7, 2015			8.80	1227.61
	July 11, 2016			8.95	1227.46
	October 17, 2016			7.60	1228.81
	March 22, 2017			8.71	1227.70
	June 1, 2017			7.65	1228.76
MW-6	April 29, 2005	21.10	1236.90	14.72	1222.18
	June 21, 2005			13.32	1223.58
	July 21, 2005			14.60	1222.30
	January 23, 2006			16.30	1220.60
	November 29, 2012			15.80	1221.10
	April 30, 2013			11.80	1225.10
	April 27, 2015			11.00	1225.90
	July 7, 2015			11.20	1225.70
	July 11, 2016			11.70	1225.20
	October 17, 2016			9.24	1227.66
	March 22, 2017			10.29	1226.61
	June 1, 2017			9.52	1227.38
MW-6A	July 7, 2015	15.00	1236.27	9.50	1226.77
	July 11, 2016			9.83	1226.44
	October 17, 2016			7.55	1228.72
	March 22, 2017			8.63	1227.64
	June 1, 2017			9.52	1226.75

TABLE 1 (page 4 of 5)

## GROUNDWATER ELEVATIONS

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-7	April 29, 2005	19.80	1233.49	9.51	1223.98
	June 21, 2005			9.75	1223.74
	July 21, 2005			11.17	1222.32
	January 23, 2006			12.69	1220.80
	August 9, 2006			12.20	1221.29
	April 12, 2007			11.40	1222.09
	November 16, 2007			8.95	1224.54
	October 17, 2008			12.50	1220.99
	May 20, 2010			10.00	1223.49
	November 29, 2012			12.10	1221.39
	April 30, 2013			8.00	1225.49
	April 27, 2015			7.20	1226.29
	July 7, 2015			7.65	1225.84
	July 11, 2016			8.09	1225.40
	October 17, 2016			5.76	1227.73
MW-7A	March 22, 2017	15.00	1234.37	6.71	1226.78
	June 1, 2017			5.89	1227.60
	July 7, 2015			8.40	1225.97
	July 11, 2016			8.62	1225.75
	October 17, 2016			6.11	1228.26
PZ-7	March 22, 2017	46.30	1233.59	7.11	1227.26
	June 1, 2017			6.18	1228.19
	April 29, 2005			15.60	1217.99
	June 21, 2005			13.54	1220.05
	July 21, 2005			13.81	1219.78
	January 23, 2006			15.98	1217.61
	August 9, 2006			14.96	1218.63
	April 12, 2007			13.25	1220.34
	November 16, 2007			11.65	1221.94
	October 17, 2008			15.10	1218.49
	May 20, 2010			12.75	1220.84
	November 29, 2012			14.45	1219.14
	April 30, 2013			10.45	1223.14
	April 27, 2015			9.50	1224.09
	July 7, 2015			10.25	1223.34
	July 11, 2016			11.02	1222.57
	October 17, 2016			8.68	1224.91
	March 22, 2017			9.49	1224.10
	June 1, 2017			6.89	1226.70

TABLE 1 (page 5 of 5)

## GROUNDWATER ELEVATIONS

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

Well Number	Date	Well Depth	TOC Elevation	Depth to Water	Water Table Elevation
MW-9	April 29, 2005	16.10	1231.65	8.32	1223.33
	June 21, 2005			7.49	1224.16
	July 21, 2005			9.14	1222.51
	January 23, 2006			10.52	1221.13
	August 9, 2006			10.00	1221.65
	April 12, 2007			8.80	1222.85
	November 16, 2007			6.75	1224.90
	October 17, 2008			10.50	1221.15
	May 20, 2010			7.90	1223.75
	November 29, 2012			10.00	1221.65
	April 30, 2013			5.40	1226.25
	April 27, 2015			5.00	1226.65
	July 7, 2015			5.55	1226.10
	July 11, 2016			5.95	1225.70
	October 17, 2016			4.05	1227.60
	March 22, 2017			4.43	1227.22
	June 1, 2017			3.52	1228.13
MW-10	July 11, 2016	20.00	1240.87	15.30	1225.57
	October 17, 2016			12.99	1227.88
	March 22, 2017			13.95	1226.92
	June 1, 2017			13.18	1227.69
CMW-1	April 5, 2007	18.00	1234.64	12.57	1222.07
	July 3, 2007			11.96	1222.68
	November 1, 2007			8.38	1226.26
	January 17, 2008			10.63	1224.01
	December 19, 2008			13.72	1220.92
	May 21, 2010			10.88	1223.76
	November 29, 2012			13.10	1221.54
	April 30, 2013			9.15	1225.49
	April 27, 2015			8.30	1226.34
	July 7, 2015			8.30	1226.34
	July 11, 2016			8.70	1225.94
	October 17, 2016			6.38	1228.26
	March 22, 2017			7.47	1227.17
	June 1, 2017			6.43	1228.21
Street MW-East	July 7, 2015	33.00	1237.41	11.80	1225.61
	July 11, 2016			12.33	1225.08
	October 17, 2016			9.90	1227.51
	March 22, 2017			10.91	1226.50
	June 1, 2017			10.16	1227.25
Street MW-West	July 7, 2015	20.00	1237.55	9.55	1228.00
	July 11, 2016			9.90	1227.65
	October 17, 2016			8.57	1228.98
	March 22, 2017			9.45	1228.10
	June 1, 2017			8.70	1228.85
Quonset Hut Well	July 7, 2015	21.50	1240.83	12.75	1228.08
	July 11, 2016			12.96	1227.87
	October 17, 2016			12.00	1228.83
	March 22, 2017			12.10	1228.73
	June 1, 2017			11.49	1229.34

TABLE 2 (page 1 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-1A												NR 140 Remedial Action Limits		
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Elevation (ft)	1221.23	1221.93	1224.33	1220.73	1222.93	1220.83	1224.88	1225.38	1225.18	1225.31	1227.79	1228.07	1227.44		
<b>ANALYTE</b>															
VOCs/PVOCs (ppb)															
Benzene	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	<b>1.9</b>	<b>4.2</b>	<b>3.5</b>	5	0.5
1,2-DCA	<b>1.12</b>	<b>0.8</b>	<b>0.7</b>	< 0.3	<b>0.81</b>	<b>1.4</b>	<b>1.8</b>	<b>2.4</b>	<b>1.1</b>	<b>1.3</b>	<b>1.8</b>	<b>3.5</b>	<b>1.5</b>	5	0.5
Ethylbenzene	< 0.1	< 0.5	< 0.5	< 0.5	0.28	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.19	< 0.18	< 0.18	700	140
MTBE	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.17	< 0.39	< 0.39	60	12
Naphthalene	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 0.21	< 0.34	< 0.34	100	10
Toluene	0.53	< 0.2	< 0.2	< 0.2	< 4	0.36	< 0.11	< 0.17	< 0.11	< 0.15	< 0.17	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	0.26	< 0.2	< 0.2	< 0.2	0.21	< 0.18	< 0.18	< 0.17	< 0.18	< 0.36	< 0.17	< 0.36	< 0.36	480	96
Total Xylenes	0.1	< 0.5	< 0.5	< 0.5	< 4	0.5	< 0.068	< 0.38	< 0.068	< 0.22	< 0.58	< 0.22	< 0.22	2,000	400

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 20

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1235.38

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 8-Aug-06

Screen Length (feet): 10

TABLE 2 (page 2 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-2A												NR 140 Remedial Action Limits	
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/10/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17		
Elevation (ft)	1221.28	1221.38	1224.38	1220.83	1223.03	1220.98	1224.98	1225.73	1225.53	1225.02	1227.39	1226.40		
<u>ANALYTE</u>														
VOCs/PVOCs (ppb)														
Benzene	<b>632</b>	< 0.2	<b>3.8</b>	<b>113</b>	<b>2.1</b>	<b>49</b>	<b>5</b>	<b>6.3</b>	<b>8.7</b>	<b>8.9</b>	< 0.36	< 0.15	5	0.5
1,2-DCA	<b>85.2</b>	<b>0.74</b>	<b>2.2</b>	< 3	<b>0.92</b>	<b>5.4</b>	< 0.28	< 0.2	< 0.28	< 0.39	---	< 0.39	5	0.5
1,2-Dichloropropane	<b>1.82</b>	< 0.5	< 0.5	< 3	---	---	---	---	---	---	---	---	5	0.5
Ethylbenzene	26.3	< 0.5	< 0.5	11.4	< 0.2	0.23	< 0.13	< 0.19	< 0.13	< 0.18	< 0.37	< 0.18	700	140
Isopropylbenzene	5.29	< 0.2	< 0.2	1.5	---	---	---	---	---	---	---	---	---	---
MTBE	< 1	< 0.5	< 0.5	< 5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	60	12
Naphthalene	< 10	< 0.25	< 0.25	< 10	< 1	0.82	< 0.16	< 0.21	< 0.16	< 0.34	< 2.4	< 0.34	100	10
Toluene	24.2	< 0.2	0.52	11	< 0.4	0.69	< 0.11	< 0.17	< 0.11	< 0.15	< 0.33	< 0.15	800	160
1,2,4- & 1,3,5-TMB	3.29	< 0.25	< 0.25	4.8	< 0.2	< 0.17	< 0.18	< 0.17	< 0.18	< 0.36	< 0.3	< 0.36	480	96
Total Xylenes	20.35	< 0.5	< 0.5	23	< 0.4	1.2	< 0.068	< 0.38	< 0.068	< 0.22	< 0.58	< 0.22	2,000	400

--- = not analyzed or no standard DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet):

20

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet):

1235.38

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed:

9-Aug-06

MW-2A was damaged and abandoned following street resurfacing activities on May 24, 2017.

TABLE 2 (page 3 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-3															NR 140 Remedial Action Limits			
Date	1/27/05	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/10/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17				
Elevation (ft)	1220.55	1223.50	1222.14	1220.59	1221.09	1221.89	1224.44	1220.74	1223.04	1220.99	1225.14	1225.74	1225.54	1225.00	1226.39				
<u>ANALYTE</u>																			
VOCs/PVOCs (ppb)																			
Benzene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	5	0.5		
1,2-DCA	< 0.3	< 0.3	< 0.3	< 0.3	< 0.15	< 0.15	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	5	0.5		
Ethylbenzene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.1	< 0.1	< 0.2	< 0.2	< 0.3	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	700	140		
MTBE	< 0.3	< 0.3	< 0.3	< 0.3	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	60	12		
Naphthalene	< 0.3	< 0.3	< 0.3	< 0.3	< 1	< 1	< 0.25	< 0.25	< 1	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 0.34	100	10		
Toluene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.2	< 0.2	< 0.4	0.24	< 0.11	< 0.17	< 0.11	< 0.15	< 0.15	800	160		
1,2,4- & 1,3,5-TMB	< 0.3	< 0.3	< 0.3	< 0.3	< 0.5	< 0.5	< 0.2	< 0.2	< 0.2	< 0.17	< 0.18	< 0.17	< 0.18	< 0.36	< 0.36	480	96		
Total Xylenes	< 0.3	< 0.3	< 0.3	< 0.3	< 0.4	< 0.4	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	< 0.068	< 0.22	< 0.22	2,000	400		

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 21.1

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1233.54

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 19-Jan-05

Screen Length (feet): 15

TABLE 2 (page 4 of 16)

ANALYTICAL RESULTS - GROUNDWATER  
DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-3A													NR 140 Remedial Action Limits	
Date	8/9/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Elevation (ft)	1222.29	1222.19	1225.14	1221.39	1224.19	1221.69	1225.79	1227.19	1227.19	1227.34	1228.66	1228.07	1228.39	ES	PAL
<b>ANALYTE</b>															
VOCs/PVOCs (ppb)															
Benzene	<b>11,100</b>	<b>12,000</b>	<b>8,400</b>	<b>5,230</b>	<b>3,220</b>	<b>1,600</b>	<b>2,500</b>	<b>3,600</b>	<b>8,300</b>	<b>4,000</b>	<b>3,000</b>	<b>2,900</b>	<b>3,200</b>	5	0.5
Bromomethane	< 50	< 50	<b>160</b>	< 500	---	---	---	---	---	---	---	---	---	10	1
n-Butylbenzene	34	740	740	1,830	---	---	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	7.2	160	160	< 150	---	---	---	---	---	---	---	---	---	---	---
Chloromethane	< 50	< 50	<b>170</b>	< 200	---	---	---	---	---	---	---	---	---	3	0.3
2-Chlorotoluene	82	< 120	< 250	< 150	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 50	< 50	< 250	< 150	<b>121</b>	< 0.2	< 28	<b>150</b>	< 140	< 7.8	< 20	< 7.8	< 3.9	5	0.5
EDB	---	<b>300</b>	<b>160</b>	< 150	---	---	---	---	---	---	---	<b>56</b>	<b>45</b>	0.05	0.005
Ethylbenzene	<b>1,260</b>	<b>4,400</b>	<b>1,900</b>	<b>2,990</b>	<b>1,470</b>	<b>610</b>	<b>1,100</b>	<b>1,600</b>	<b>21,000</b>	<b>1,600</b>	<b>1,500</b>	<b>1,200</b>	<b>1,600</b>	700	140
Isopropylbenzene	49.1	380	100	286	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	20	160	< 100	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 1	< 120	< 250	< 250	< 50	< 0.12	< 24	< 8.5	< 120	< 7.9	< 17	< 7.9	< 3.9	60	12
Naphthalene	<b>218</b>	<b>1,500</b>	<b>320</b>	<b>807</b>	<b>897</b>	<b>150</b>	<b>840</b>	<b>280</b>	<b>6,000</b>	<b>530</b>	<b>400</b>	<b>260</b>	<b>450</b>	100	10
Propylbenzene	100	1,200	< 250	< 50	---	---	---	---	---	---	---	---	---	---	---
sec-Butylbenzene	7.18	< 120	< 250	< 150	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>14,800</b>	<b>30,000</b>	<b>18,000</b>	<b>14,300</b>	<b>6,480</b>	<b>4,900</b>	<b>7,000</b>	<b>13,000</b>	<b>68,000</b>	<b>16,000</b>	<b>11,000</b>	<b>11,000</b>	<b>12,000</b>	800	160
1,2,4- & 1,3,5-TMB	<b>944</b>	<b>9,800</b>	<b>1,940</b>	<b>6,250</b>	<b>4,820</b>	<b>1,300</b>	<b>14,000</b>	<b>2,070</b>	<b>56,000</b>	<b>2,470</b>	<b>1,670</b>	<b>1,790</b>	<b>2,430</b>	480	96
Total Xylenes	<b>5,720</b>	<b>22,000</b>	<b>9,300</b>	<b>15,800</b>	<b>8,320</b>	<b>4,600</b>	<b>13,000</b>	<b>8,000</b>	<b>110,000</b>	<b>11,000</b>	<b>8,100</b>	<b>6,300</b>	<b>8,100</b>	2,000	400

--- = not analyzed or no standard

DCA = dichloroethane

EDB = 1,2-dibromoethane MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 20

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1235.89

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 9-Aug-06

Screen Length (feet): 10

TABLE 2 (page 5 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-4/4R														NR 140 Remedial Action Limits			
Date	1/27/05	6/21/05	4/16/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17				
Elevation (ft)	1220.30	1223.54	1221.90	1224.50	1221.10	1223.60	1221.20	1226.30	1227.45	1226.15	1225.59	1227.74	1226.82	1227.60				
<u>ANALYTE</u>																		
VOCs/PVOCs (ppb)																		
Benzene	<b>1,660</b>	<b>164</b>	<b>110</b>	<b>1,900</b>	<b>1,780</b>	<b>1,430</b>	<b>190</b>	<b>64</b>	<b>300</b>	<b>2,400</b>	<b>1,900</b>	<b>700</b>	<b>740</b>	<b>780</b>	5	0.5		
n-Butylbenzene	< 0.3	34.1	36	100	< 40	---	---	---	---	---	---	---	---	---	---	---		
sec- Butylbenzene	< 10	< 10	10	23	< 30	---	---	---	---	---	---	---	---	---	---	---		
1,2-DCA	< 0.3	< 10	< 10	< 20	< 30	< 30	<b>8.4</b>	< 5.6	< 10	< 56	<b>89</b>	< 10	< 2	< 0.78	5	0.5		
EDB	< 8	< 8	< 8	<b>23</b>	< 30	---	---	---	---	---	---	---	---	< 1.9	< 0.77	0.05	0.005	
Ethylbenzene	<b>355</b>	79.2	<b>770</b>	<b>1,000</b>	<b>1,310</b>	<b>1,220</b>	140	210	210	<b>4,200</b>	<b>1,800</b>	<b>1,000</b>	<b>1,100</b>	<b>1,400</b>	700	140		
Isopropylbenzene	< 10	11.6	60	91	78	---	---	---	---	---	---	---	---	---	---	---		
p-Isopropyltoluene	< 10	< 10	10	28	---	---	---	---	---	---	---	---	---	---	---	---		
MTBE	< 20	< 20	< 20	< 20	< 50	< 50	< 0.12	< 4.8	< 8.5	< 48	< 3.9	< 8.5	< 2	< 0.79	60	12		
Naphthalene	< 30	<b>30</b>	<b>180</b>	<b>400</b>	<b>284</b>	<b>249</b>	<b>63</b>	< 3.2	<b>87</b>	<b>1,800</b>	<b>430</b>	<b>500</b>	<b>190</b>	<b>360</b>	100	10		
n-Propylbenzene	< 10	16.7	150	240	< 10	---	---	---	---	---	---	---	---	---	---	---		
Toluene	<b>1,890</b>	<b>269</b>	<b>750</b>	<b>3,600</b>	<b>2,560</b>	<b>4,430</b>	<b>220</b>	100	<b>260</b>	<b>2,900</b>	<b>6,200</b>	<b>2,600</b>	<b>2,400</b>	<b>2,300</b>	800	160		
1,2,4- & 1,3,5-TMB	<b>277</b>	<b>150</b>	<b>1,220</b>	<b>1,960</b>	<b>1,587</b>	<b>1,287</b>	<b>750</b>	<b>1,820</b>	<b>590</b>	<b>16,300</b>	<b>2,180</b>	<b>1,550</b>	<b>1,290</b>	<b>1,770</b>	480	96		
Total Xylenes	1,195	437	3,200	4,500	4,970	5,140	540	800	850	14,000	7,200	3,900	4,000	4,800	2,000	400		

--- = not analyzed or no standard

DCA = dichloroethane

EDB = 1,2-Dibromoethane

Well Depth (feet): 20

MTBE = methyl-tert-butyleth

TMB = trimethylbenzene

TOC Elevation (feet): 1236.83

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

Date Installed: 16-Jun-16

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Screen Length (feet): 15

MW-4 was abandoned during soil excavation activities on June 6, 2016 and replaced with MW-4R.

TABLE 2 (page 6 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-4A											NR 140 Remedial Action Limits		
Date	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17			
Elevation (ft)	1224.83	1222.23	1223.38	1221.18	1224.88	1225.98	1225.93	1225.43	1227.90	1226.80	1227.75			
ANALYTE													ES	PAL
VOCs/PVOCs (ppb)														
Benzene	<b>1,600</b>	<b>1,850</b>	<b>1,840</b>	<b>1,000</b>	<b>600</b>	<b>24</b>	<b>28</b>	<b>28</b>	<b>36</b>	<b>13</b>	< 0.36	5	0.5	
cis-1,2-Dichloroethylene	< 10	<b>37.2</b>	---	---	---	---	---	---	---	---	---	70	7	
1,2-DCA	< 10	< 50	< 30	< 0.2	< 1.4	< 0.2	< 0.28	< 0.28	---	< 0.39	< 0.28	5	0.5	
EDB	< 8	<b>60.7</b>	---	---	---	---	---	---	---	< 0.39	---	0.05	0.005	
Ethylbenzene	<b>200</b>	<b>610</b>	<b>492</b>	<b>290</b>	<b>180</b>	77	28	22	53	34	34	700	140	
Isopropylbenzene	21	29.3	---	---	---	---	---	---	---	---	---	---	---	
MTBE	< 20	< 50	< 50	< 0.12	< 1.2	< 0.17	< 0.24	< 0.39	<b>58</b>	< 0.39	< 0.24	60	12	
Naphthalene	<b>72</b>	<b>144</b>	<b>111</b>	<b>140</b>	<b>26</b>	8.7	10	8.2	<b>32</b>	5.9	<b>44</b>	100	10	
n-Propylbenzene	34	< 10	---	---	---	---	---	---	---	---	---	---	---	
Toluene	160	<b>441</b>	<b>332</b>	75	84	31	6.6	4.5	12	6.4	8.6	800	160	
1,2,4- & 1,3,5-TMB	<b>200</b>	<b>437</b>	<b>491</b>	<b>347</b>	<b>181</b>	<b>175</b>	81	21.8	65	54	67	480	96	
Total Xylenes	300	<b>781</b>	<b>897</b>	380	320	110	46	34	71	42	39	2,000	400	

--- = not analyzed or no standard DCA = dichloroethane

EDB = 1,2-Dibromoethane

Well Depth (feet): 18

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

TOC Elevation (feet): 1235.58

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

Date Installed: 12-Nov-07

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Screen Length (feet): 10

TABLE 2 (page 7 of 16)

**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**

	MW-5						MW-6A			MW-7A			NR 140 Remedial Action Limits	
	6/21/05	7/21/05	1/23/06	7/7/15	7/11/16	3/22/17	7/7/15	7/11/16	3/22/17	7/7/15	7/11/16	3/22/17		
Date	6/21/05	7/21/05	1/23/06	7/7/15	7/11/16	3/22/17	7/7/15	7/11/16	3/22/17	7/7/15	7/11/16	3/22/17		
Elevation (ft)	1223.70	1222.41	1220.77	1227.17	1226.89	1228.32	1226.77	1226.44	1227.64	1225.97	1225.75	1227.26		
ANALYTE													ES	PAL
VOCs/PVOCs (ppb)														
Benzene	<b>186</b>	<b>202</b>	<b>262</b>	<b>2.1</b>	<b>5.4</b>	<b>3.5</b>	< 0.074	< 0.15	< 0.15	< 0.074	< 0.15	< 0.15	5	0.5
n-Butylbenzene	9.26	12.2	18.8	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	2.69	3.87	5.78	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	<b>11.2</b>	<b>11.6</b>	<b>14.5</b>	< 0.28	< 0.39	< 0.39	< 0.28	< 0.39	< 0.39	< 0.28	< 0.39	< 0.39	5	0.5
Ethylbenzene	28.4	34.6	19.7	1.8	1.8	1.7	< 0.13	< 0.18	< 0.18	< 0.13	< 0.18	< 0.18	700	140
Isopropylbenzene	28.4	34.6	19.7	---	---	---	---	---	---	---	---	---	---	---
MTBE	---	---	---	< 0.24	< 0.39	< 0.39	< 0.24	< 0.39	< 0.39	< 0.24	< 0.39	< 0.39	60	12
Naphthalene	<b>24.1</b>	<b>26.2</b>	<b>31.1</b>	2.9	9.7	2.4	< 0.16	< 0.34	< 0.34	< 0.16	< 0.34	< 0.34	100	10
n-Propylbenzene	7.06	9.91	9.48	---	---	---	---	---	---	---	---	---	---	---
Toluene	5.78	8.59	8.94	< 0.11	0.43	0.26	< 0.11	< 0.15	< 0.15	< 0.11	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	45.24	61.6	91.3	17	31.73	15.44	< 0.18	< 0.36	< 0.36	< 0.18	< 0.36	< 0.36	480	96
Total Xylenes	73.2	98.8	117.2	20	33	17	< 0.068	< 0.22	< 0.22	< 0.068	< 0.22	< 0.22	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

TABLE 2 (page 8 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-5A											NR 140 Remedial Action Limits	
Date	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Elevation (ft)	1225.56	1222.01	1224.81	1222.91	1226.31	1227.21	1227.61	1227.46	1228.81	1227.70	1228.76		
ANALYTE												ES	PAL
VOCs/PVOCs (ppb)													
Benzene	< 200	<b>143</b>	<b>393</b>	<b>77</b>	<b>63</b>	<b>53</b>	<b>42</b>	<b>30</b>	<b>6</b>	<b>51</b>	<b>16</b>	5	0.5
n-Butylbenzene	4,500	< 40	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	600	< 30	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 200	< 30	< 300	< 0.2	< 0.56	< 10	< 1.4	< 7.8	< 1	< 2	< 7.8	5	0.5
Ethylbenzene	<b>1,200</b>	<b>809</b>	<b>3,800</b>	<b>710</b>	<b>620</b>	<b>520</b>	<b>510</b>	<b>220</b>	<b>55</b>	<b>470</b>	<b>150</b>	700	140
Isopropylbenzene	500	78	---	---	---	---	---	---	---	---	---	---	---
p-Isopropyltoluene	550	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 500	< 50	< 500	< 0.12	< 0.48	< 8.5	< 1.2	< 7.9	< 0.85	< 2	<b>300</b>	60	12
Naphthalene	<b>4,200</b>	<b>203</b>	<b>2,640</b>	<b>190</b>	<b>200</b>	<b>160</b>	<b>150</b>	<b>180</b>	<b>38</b>	<b>110</b>	<b>96</b>	100	10
n-Propylbenzene	2,400	< 10	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>1,400</b>	<b>1,300</b>	<b>5,590</b>	<b>1,100</b>	<b>800</b>	<b>280</b>	<b>220</b>	<b>72</b>	<b>12</b>	<b>120</b>	<b>42</b>	800	160
1,2,4- & 1,3,5-TMB	<b>30,500</b>	<b>1,767</b>	<b>16,470</b>	<b>1,840</b>	<b>1,130</b>	<b>1,900</b>	<b>2,020</b>	<b>1,400</b>	<b>332</b>	<b>1,390</b>	<b>283</b>	480	96
Total Xylenes	<b>4,900</b>	<b>2,902</b>	<b>15,530</b>	<b>2,900</b>	<b>1,900</b>	<b>1,800</b>	<b>1,900</b>	<b>960</b>	<b>180</b>	<b>330</b>	<b>440</b>	2,000	400

--- = not analyzed or no standard DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 18

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1236.41

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 12-Nov-07

Screen Length (feet): 10

TABLE 2 (page 9 of 16)

**ANALYTICAL RESULTS - GROUNDWATER**  
**DAIRICONCEPTS SITE, CHILI, WISCONSIN**

	<b>MW-6</b>										NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17			
Elevation (ft)	1223.58	1222.30	1220.60	1221.10	1225.10	1225.90	1225.70	1225.20	1226.61	ES	PAL	
<b>ANALYTE</b>												
<b>VOCs/PVOCs (ppb)</b>												
Benzene	< 0.31	< 0.31	< 0.31	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	5	0.5	
1,2-DCA	< 0.4	< 0.4	< 0.4	<b>0.59</b>	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	5	0.5	
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.19	< 0.13	< 0.19	0.52	< 0.18	< 0.18	700	140	
MTBE	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	60	12	
Naphthalene	< 0.8	< 0.8	< 0.8	< 0.21	< 0.16	< 0.21	2.2	< 0.34	< 0.34	100	10	
Toluene	< 0.3	< 0.3	< 0.3	0.22	< 0.11	< 0.17	0.98	< 0.15	< 0.15	800	160	
1,2,4- & 1,3,5-TMB	< 0.71	< 0.71	< 0.71	< 0.17	< 0.18	< 0.17	5.7	< 0.36	< 0.36	480	96	
Total Xylenes	< 0.92	< 0.92	< 0.92	< 0.18	< 0.068	< 0.38	2.9	< 0.22	< 0.22	2,000	400	

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 21.1

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1236.90

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 20-Apr-05

Screen Length (feet): 10

TABLE 2 (page 10 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-7															NR 140 Remedial Action Limits		
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Elevation (ft)	1223.74	1222.32	1220.80	1221.29	1222.09	1224.54	1220.99	1223.49	1221.39	1225.49	1226.29	1225.84	1225.40	1227.73	1226.78	1227.60		
<u>ANALYTE</u>																	<i>ES</i>	<i>PAL</i>
VOCs/PVOCs (ppb)																		
Benzene	1.99	1.51	< 0.2	0.31	0.4	<b>2.2</b>	< 0.2	1.99	< 0.2	<b>5.6</b>	<b>1.6</b>	<b>4.4</b>	<b>0.64</b>	< 0.36	<b>0.72</b>	<b>0.65</b>	5	0.5
1,2-DCA	<b>0.66</b>	<b>0.98</b>	<b>1.14</b>	<b>1.81</b>	<b>0.77</b>	<b>0.66</b>	<b>1.52</b>	<b>0.64</b>	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	---	<b>0.95</b>	< 0.39	5	0.5
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.2	< 0.2	< 0.2	< 0.13	< 0.19	4	< 0.18	< 0.37	< 0.18	< 0.18	700	140
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	< 0.39	< 0.39	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 1	< 1	< 0.21	< 0.16	< 0.21	8	< 0.34	< 2.4	< 0.34	< 0.34	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.4	< 0.4	0.29	< 0.11	< 0.17	6.3	< 0.15	< 0.33	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	0.92	< 0.17	< 0.18	< 0.17	33.3	< 0.39	< 0.3	< 0.36	< 0.39	480	96
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.4	0.45	< 0.18	< 0.068	< 0.38	26	< 0.22	< 0.58	< 0.22	< 0.22	2,000	400

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet):

19.8

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet):

1233.49

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed:

21-Apr-05

Screen Length (feet):

10

TABLE 2 (page 11 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	PZ-7														NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17		
Elevation (ft)	1220.05	1219.78	1217.61	1218.64	1220.34	1221.94	1221.94	1220.84	1219.14	1223.14	1224.09	1223.34	1222.57	1224.10		
<u>ANALYTE</u>															ES	PAL
VOCs/PVOCs (ppb)																
Benzene	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	5	0.5
1,2-DCA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	5	0.5
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.2	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	700	140
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	2	< 0.16	< 0.34	< 0.34	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.2	< 0.4	0.23	< 0.11	< 0.17	0.43	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.15	< 0.15	< 0.15	< 0.15	< 0.25	< 0.2	< 0.2	< 0.3	< 0.17	< 0.18	0.59	1.3	< 0.39	< 0.39	480	96
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	0.74	< 0.22	< 0.22	2,000	400

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 46.3

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1233.59

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 21-Apr-05

Screen Length (feet): 5

TABLE 2 (page 12 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-9														NR 140 Remedial Action Limits	
Date	6/21/05	7/21/05	1/23/06	8/8/06	4/12/07	11/16/07	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	3/22/17		
Elevation (ft)	1224.16	1222.51	1221.13	1221.65	1222.85	1224.90	1221.15	1223.75	1221.65	1226.25	1226.65	1226.10	1225.70	1227.22		
<u>ANALYTE</u>															ES	PAL
VOCs/PVOCs (ppb)																
Benzene	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.074	< 0.15	< 0.15	5	0.5
1,2-DCA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.2	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	< 0.39	5	0.5
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.2	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.18	700	140
MTBE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.39	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 0.25	< 0.25	< 0.25	< 1	< 0.21	< 0.16	0.82	< 0.16	< 0.34	< 0.34	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.2	< 0.2	0.22	< 0.11	< 0.17	< 0.11	< 0.15	< 0.15	800	160
1,2,4- & 1,3,5-TMB	< 0.25	< 0.25	< 0.25	0.26	< 0.25	< 0.2	< 0.2	< 0.3	< 0.17	< 0.18	< 0.17	0.87	< 0.39	< 0.39	480	96
Total Xylenes	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	< 0.5	< 0.5	< 0.4	< 0.18	< 0.068	< 0.38	< 0.068	< 0.22	< 0.22	2,000	400

--- = not analyzed or no standard

DCA = dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 16.1

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1231.65

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 21-Apr-05

Screen Length (feet): 10

TABLE 2 (page 13 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	MW-10				Street MW-East					Street MW-West					NR 140 Remedial Action Limits	
Date	7/11/16	10/17/16	3/22/17	6/1/17	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Elevation (ft)	1225.57	1227.88	1226.92	1227.69	1225.61	1225.08	1227.51	1226.50	1227.25	1228.00	1227.65	1228.98	1228.10	1228.85		
ANALYTE															ES	PAL
VOCs/PVOCs (ppb)																
Benzene	<b>49</b>	< 2	<b>54</b>	<b>87</b>	< 0.074	< 0.15	< 0.36	< 0.15	< 0.36	<b>2.3</b>	<b>5.6</b>	<b>0.89</b>	<b>1.3</b>	< 0.36	5	0.5
n-Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
sec- Butylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1,2-DCA	< 2	< 2	< 2	---	< 0.28	< 0.39	---	< 0.39	---	< 0.28	< 0.39	---	< 0.39	---	5	0.5
Ethylbenzene	<b>790</b>	<b>1,700</b>	<b>590</b>	<b>740</b>	1.3	< 0.18	< 0.37	< 0.18	< 0.37	< 0.13	1.8	< 0.37	< 018	< 0.37	700	140
Isopropylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MTBE	< 2	< 1.7	< 2	<b>2,100</b>	< 0.24	< 0.39	< 0.24	< 0.39	< 0.24	< 0.24	< 0.39	< 0.24	< 0.39	0.69	60	12
Naphthalene	<b>210</b>	<b>820</b>	<b>97</b>	<b>360</b>	1.8	< 0.34	< 2.4	< 0.34	< 2.4	< 0.16	< 0.34	< 2.4	< 0.34	< 2.4	100	10
n-Propylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Toluene	<b>300</b>	<b>440</b>	<b>420</b>	<b>890</b>	2.2	< 0.15	< 0.33	< 0.15	< 0.33	0.39	0.35	< 0.33	< 0.15	< 0.33	800	160
1,2,4- & 1,3,5-TMB	<b>1,130</b>	<b>2,930</b>	<b>960</b>	<b>960</b>	7	< 0.36	< 0.3	< 0.36	< 0.3	0.66	2.54	< 0.3	< 0.36	< 0.3	480	96
Total Xylenes	<b>1,900</b>	<b>1,500</b>	<b>1,300</b>	<b>1,900</b>	6.7	< 0.22	< 0.58	< 0.22	< 0.58	0.63	4.5	< 0.58	< 0.22	< 0.58	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

TABLE 2 (page 14 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	CMW-1													NR 140 Remedial Action Limits		
Date	4/5/07	7/3/07	11/1/07	1/17/08	12/19/08	5/21/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16	10/17/16	3/22/17	6/1/17		
Depth to Water (ft)	1222.07	1222.68	1226.26	12.24.01	1220.92	1223.76	1221.54	1225.49	1226.34	1226.34	1225.94	1228.26	1227.17	1228.21	ES	PAL
<b>ANALYTE</b>																
VOCs/PVOCs (ppb)																
Benzene	0.41	0.40	<b>7.11</b>	<b>2.65</b>	<b>2.14</b>	< 0.2	0.24	0.28	< 0.2	< 0.074	< 0.15	< 0.36	< 0.15	< 0.36	5	0.5
1,2-DCA	<b>0.93</b>	---	---	---	---	< 0.2	< 0.28	< 0.2	< 0.28	< 0.39	---	< 0.39	---	5	0.5	
Ethylbenzene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.19	< 0.13	< 0.19	< 0.13	< 0.18	< 0.37	< 0.18	< 0.37	700	140
MTBE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.12	< 0.24	< 0.17	< 0.24	< 0.39	< 0.24	< 0.39	< 0.24	60	12
Naphthalene	< 1	---	---	---	---	---	< 0.21	< 0.16	< 0.21	< 0.16	< 0.34	< 2.4	< 0.34	< 2.4	100	10
Toluene	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.17	< 0.11	< 0.17	0.36	< 0.15	< 0.33	< 0.15	< 0.33	800	160
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.17	< 0.18	< 0.17	0.83	< 0.39	< 0.3	< 0.39	< 0.3	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	< 0.18	< 0.068	< 0.38	0.59	< 0.22	< 0.58	< 0.22	< 0.58	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Well Depth (feet): 18

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

TOC Elevation (feet): 1234.64

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed: 28-Feb-07

Screen Length (feet): 10

TABLE 2 (page 15 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	PW-1							PW-5			Strey Well				NR 140 Remedial Action Limits		
Date	8/9/06	11/29/12	5/8/13	4/27/15	7/7/15	7/11/16	4/27/15	7/7/15	7/11/16	12/10/03	6/15/05	1/23/06	7/11/16				
ANALYTE																	
VOCs/PVOCs (ppb)																	
Benzene	< 0.15	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	< 0.2	< 0.13	< 0.13	1.5	0.347	0.322	< 0.13	5	0.5		
1,2-DCA	< 0.1	< 0.2	< 0.28	< 0.2	< 0.14	< 0.14	< 0.2	< 0.14	< 0.14	< 0.15	0.15	0.185	< 0.14	5	0.5		
Ethylbenzene	< 0.1	< 0.19	< 0.13	< 0.19	< 0.11	< 0.11	< 0.19	< 0.11	< 0.11	< 0.15	< 0.4	< 0.4	< 0.11	700	140		
MTBE	< 0.4	< 0.12	< 0.24	< 0.17	< 0.12	< 0.12	< 0.17	< 0.12	< 0.12	< 0.15	< 0.4	< 0.4	< 0.15	60	12		
Naphthalene	< 1	< 0.21	< 0.16	< 0.21	< 0.06	< 0.06	< 0.21	< 0.06	< 0.06	< 0.15	< 1	< 1	< 0.15	100	10		
Toluene	< 0.4	< 0.17	< 0.11	< 0.17	< 0.1	< 0.1	< 0.17	< 0.1	< 0.1	< 0.15	< 0.4	< 0.4	< 0.1	800	160		
1,2,4- & 1,3,5-TMB	< 0.4	0.48	< 0.18	< 0.17	1.65	< 0.13	< 0.17	< 0.09	< 0.13	< 0.3	< 0.3	< 0.3	< 0.13	480	96		
Total Xylenes	< 1	< 0.18	< 0.068	< 0.38	< 0.2	< 0.12	< 0.38	< 0.2	< 0.12	< 0.3	< 0.5	< 0.5	< 0.12	2,000	400		

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

PW-1 represents a sample collected from the on site potable well at the DairiConcepts facility (ID #IY805).

PW-5 represents a sample collected from the new (installed 9-25-13) on site potable well at the DairiConcepts facility (ID #XH461).

Strey Well represents a sample collected from the Strey Residence potable well, N5696 County Highway Y.

TABLE 2 (page 16 of 16)

## ANALYTICAL RESULTS - GROUNDWATER

## DAIRICONCEPTS SITE, CHILI, WISCONSIN

	PW-4											NR 140 Remedial Action Limits	
Date	11/1/06	1/10/07	3/2/07	1/11/08	10/17/08	5/20/10	11/29/12	4/30/13	4/27/15	7/7/15	7/11/16		
ANALYTE												ES	PAL
VOCs/PVOCs (ppb)													
Benzene	<b>5.97</b>	<b>2.2</b>	< 0.15	<b>0.27</b>	< 0.2	< 0.2	< 0.2	< 0.074	< 0.2	< 0.13	< 0.13	5	0.5
Bromobenzene	0.1	< 0.1	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.13	< 0.13	---	---
Bromodichloromethane	<b>1.65</b>	<b>0.37</b>	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.11	< 0.11	0.6	0.06
Chloroethane	< 0.6	0.1	< 0.6	< 0.6	< 0.6	---	---	---	---	< 0.07	< 0.07	400	80
Chloroform	<b>19.6</b>	<b>4.4</b>	< 0.1	< 0.1	< 0.1	---	---	---	---	< 0.14	< 0.14	6	0.6
Chloromethane	< 0.2	0.12	< 0.2	< 0.2	< 0.2	---	---	---	---	< 0.063	< 0.063	3	0.3
1,4-Dichlorobenzene	< 0.1	< 0.05	1.13	< 0.8	< 0.8	---	---	---	---	< 0.13	< 0.13	75	15
1,2-DCA	< 0.1	0.15	< 0.1	< 0.2	< 0.2	< 0.3	< 0.2	< 0.28	< 0.2	< 0.14	< 0.14	5	0.5
1,2-Dichloropropane	<b>0.39</b>	< 0.1	< 0.1	< 0.2	< 0.2	---	---	---	---	< 0.11	< 0.11	5	0.05
Ethylbenzene	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.2	< 0.19	< 0.13	< 0.19	< 0.11	< 0.11	700	140
Methylene Chloride	< 0.4	0.91	< 0.4	< 0.4	< 0.4	---	---	---	---	< 0.25	< 0.25	---	---
MTBE	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.5	0.29	< 0.24	< 0.17	< 0.12	< 0.12	60	12
Naphthalene	< 1	< 1	< 1	< 1	< 1	< 1	< 0.21	< 0.16	< 0.21	< 0.06	< 0.06	100	10
Toluene	< 0.4	0.44	< 0.4	11.9	0.86	< 0.4	< 0.17	< 0.11	< 0.17	< 0.1	< 0.1	800	160
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.17	< 0.18	< 0.17	< 0.043	< 0.043	480	96
Total Xylenes	< 1	< 0.05	< 1	< 1	< 1	< 0.4	< 0.18	< 0.068	< 0.38	< 0.2	< 0.12	2,000	400

--- = not analyzed or no standard

DCA = 1,2-Dichloroethane

MTBE = methyl-tert-butylether

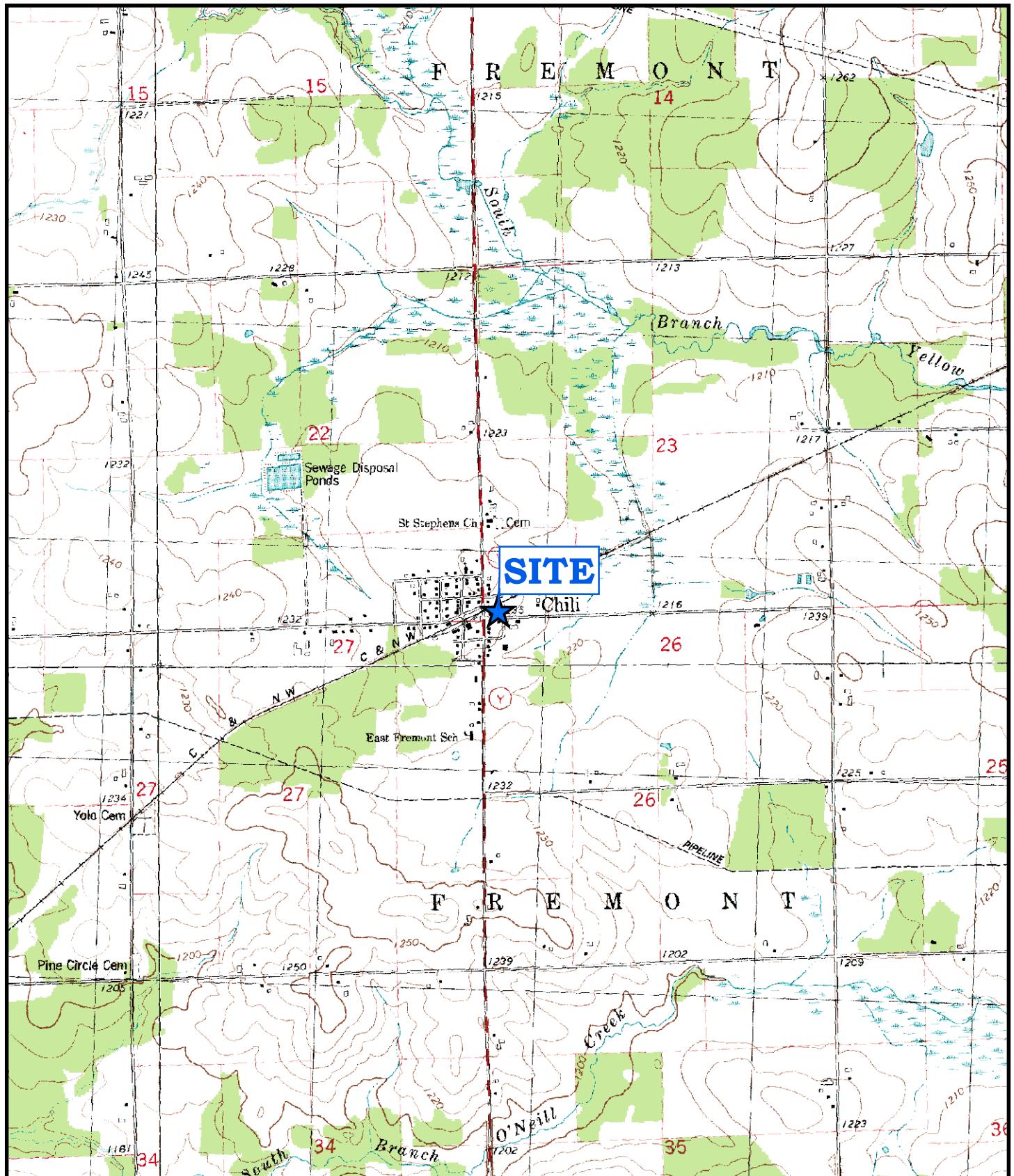
TMB = trimethylbenzene

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

PW-4 represents a sample collected from the new potable well at W887 Chili Road (former Krueger Residence) (TY722).

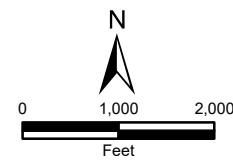
# Figures

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Map Reference: USGS 7.5" Quadrangles,  
Spencer South, Loyal East, Lindsey, and  
Granton, Wisconsin



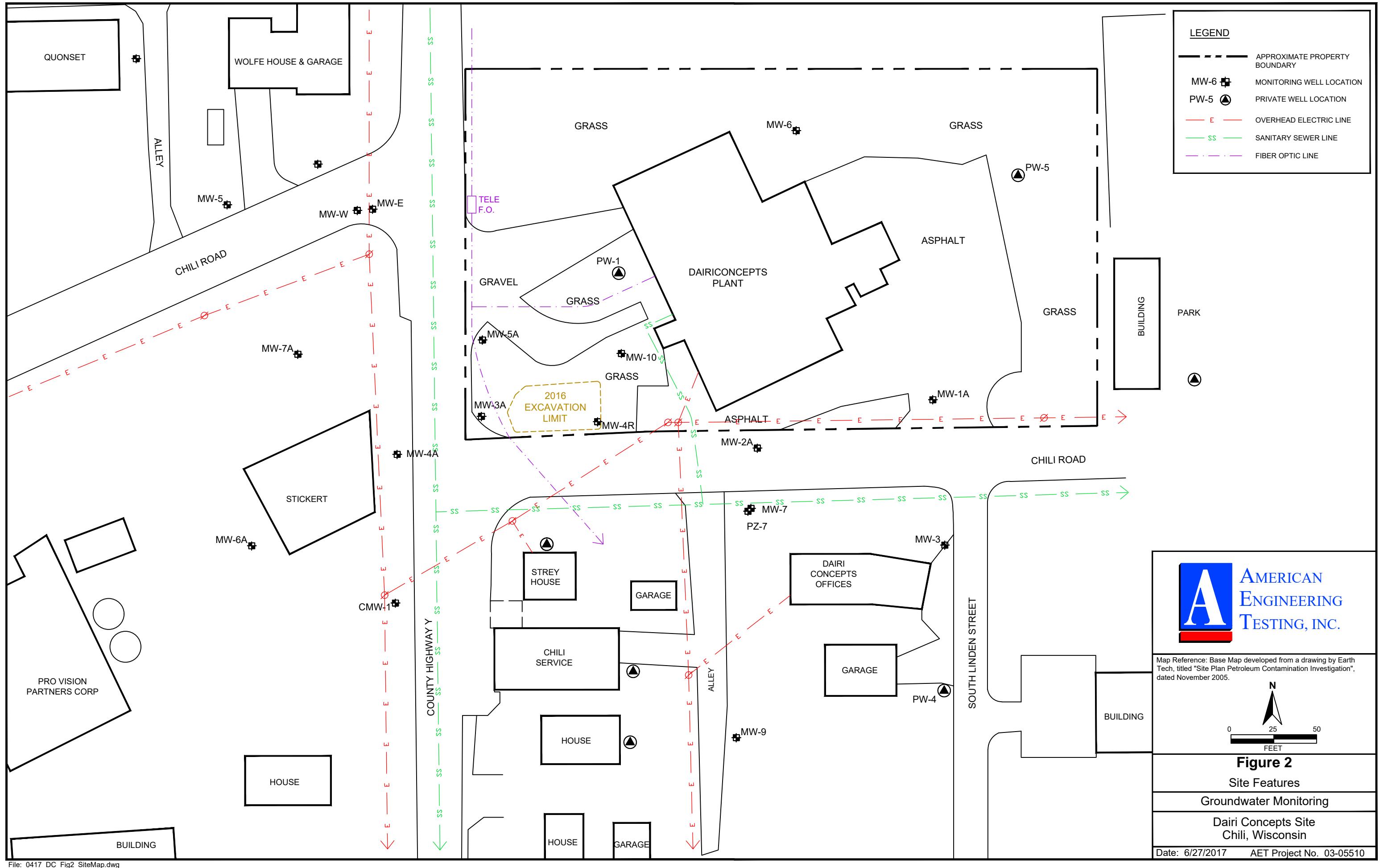
**Figure 1**  
**Site Location Map**

Groundwater Monitoring Report

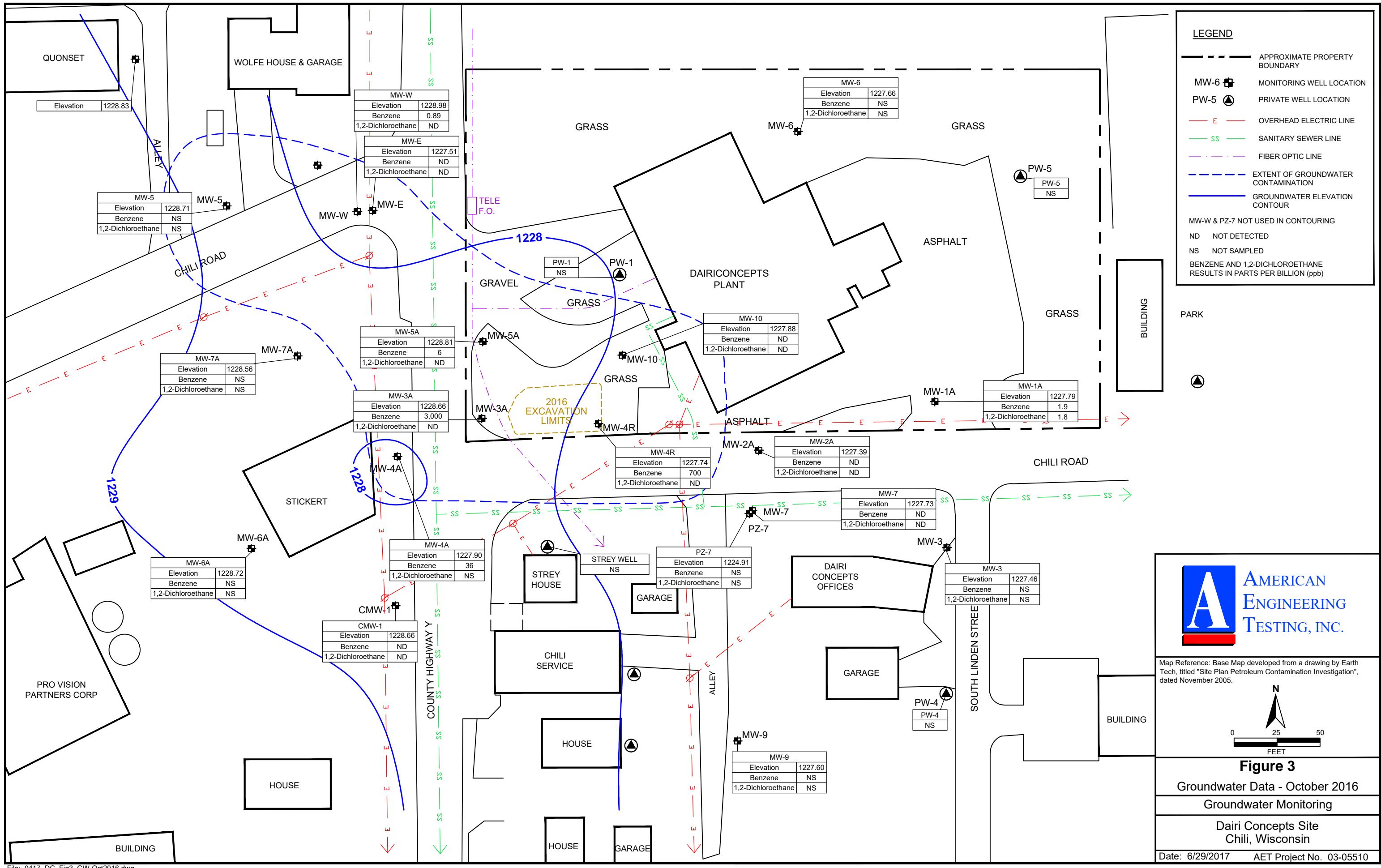
Dairi Concepts Site  
Chili, Wisconsin

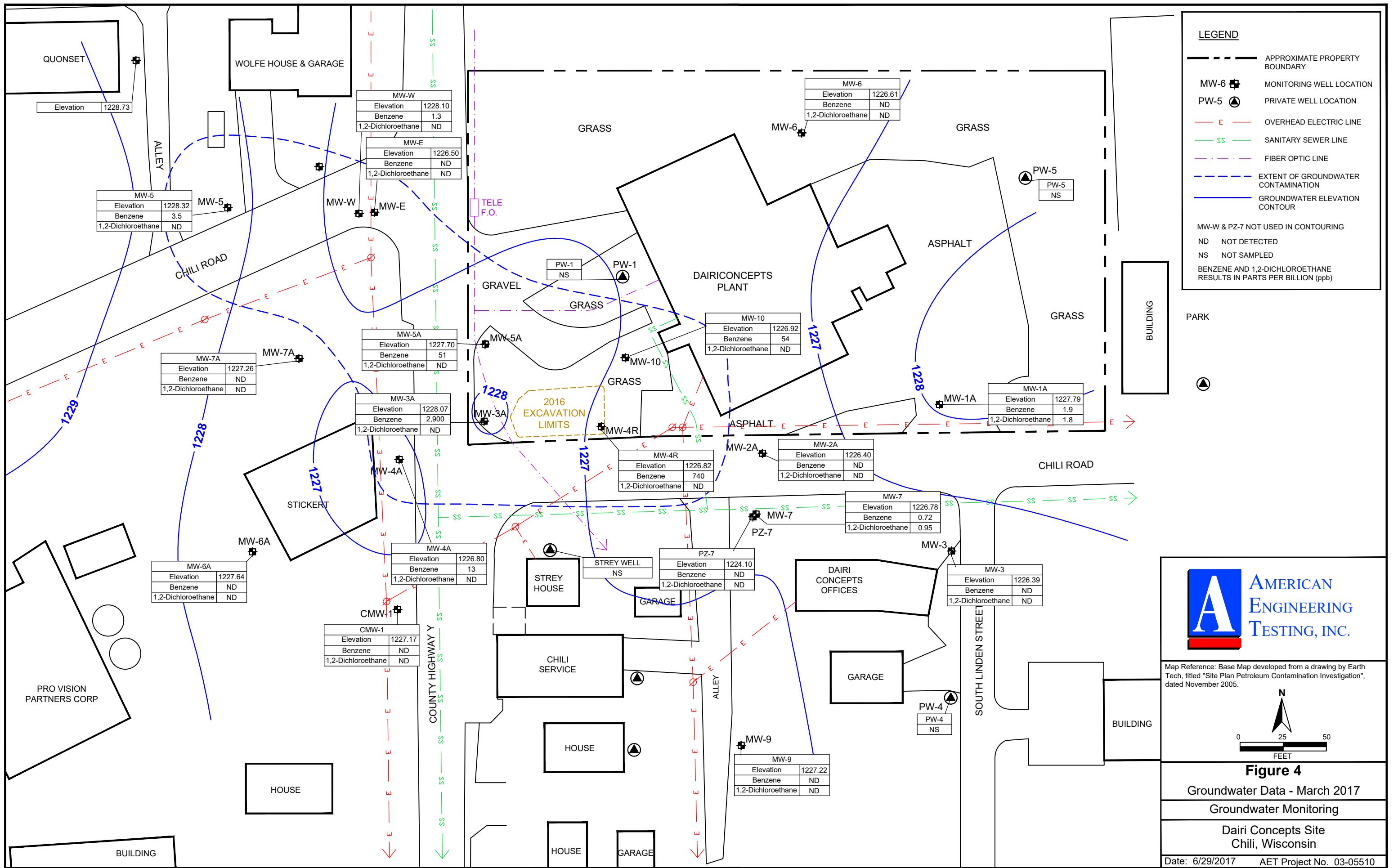
Date: 08/16/2016

AET Project No. 03-05510



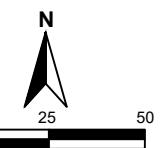
File: 0417\_DC\_Fig2\_SiteMap.dwg





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Map Reference: Base Map developed from a drawing by Earth Tech, titled "Site Plan Petroleum Contamination Investigation", dated November 2005.



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0 25 50

FEET

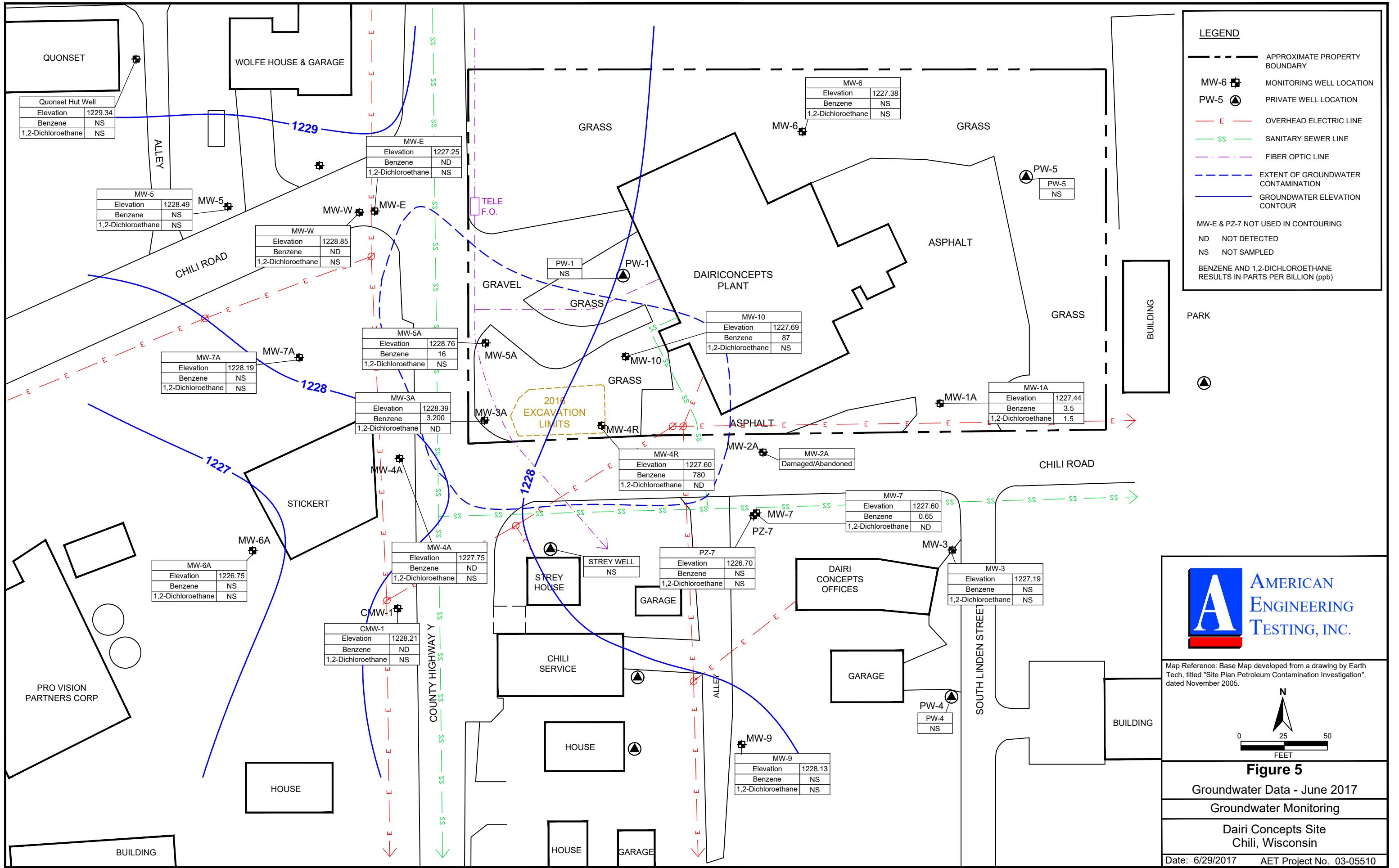
**Figure 4**

Groundwater Data - March 2017

Groundwater Monitoring

Dairi Concepts Site  
Chili, Wisconsin

Date: 6/29/2017 AET Project No. 03-05510



# **Appendix A**

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Acronyms and Abbreviations

**ACRONYMS AND ABBREVIATIONS****AET Standard List**

<sup>o</sup> C	degrees Celsius
<sup>o</sup> F	degrees Fahrenheit
%	percent
AAI	EPA All Appropriate Inquiry (§312.10 of 40 CFR 312)
ACM	asbestos containing material
ACBM	asbestos containing building material
AET	American Engineering Testing, Inc.
AHERA	Asbestos Hazard Emergency Response Act
AST	aboveground storage tank
ASTM	American Society for Testing and Materials (now known only by acronym)
AUL	activity and use limitation
BETX	benzene, ethylbenzene, toluene, xylene
bgs	below ground surface
BRRTS	Bureau of Remediation and Redevelopment Tracking System
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation, Liability Act (Superfund)
CERCLIS	Comprehensive Environmental Response, Compensation, Liability Information System
CESQG	RCRA Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CLEAN	Contaminated Lands Environmental Action Network
CoC	contaminant of concern
c.o.c.	chain of custody
CORRACTS	RCRA Corrective Actions Information System
cPAH	carcinogenic polynuclear aromatic hydrocarbon
CVOC	chlorinated volatile organic compound
cy or CY	cubic yards
DRO	diesel range organics
EC	engineering control
EIS	Environmental Impact Statement
EP	Environmental Professional (§312.10 of 40 CFR 312)
EPA	Environmental Protection Agency (also USEPA)
ES	enforcement standard
ERNS	Emergency Response Notification System (federal)
ESA	Environmental Site Assessment
f/cc	fibers per cubic centimeter
ft	feet
GC	gas chromatography
GC/MS	gas chromatography/mass spectroscopy
GEN	RCRA Generator

**ACRONYMS AND ABBREVIATIONS****AET Standard List**

GIS	geographic information system
GPS	global positioning system
GRO	gasoline range organics
HASP	Health and Safety Plan
HIG	Historical Information Gatherers, Inc.
HREC	historical recognized environmental condition
IC	institutional control
LLP	landowner liability protection
LQG	RCRA Large Quantity Generator
LOQ	limit of quantitation
LSI	Limited Site Investigation
LUST	leaking underground storage tank
MCL	EPA Maximum Contaminant Level
MDL	method detection limit.
mg/kg	milligrams per kilogram (ppm)
mg/L	milligrams per liter (ppm)
MTBE	methyl tert-butyl ether
NA	not assigned or not applicable
ND	no detection
NEPA	National Environmental Protection Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NLR	RCRA No Longer Regulated Information System
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List (federal Superfund)
NR	not recorded
ODI	EPA Open Dump Inventory
OSHA	Occupational Safety and Health Administration
PECFA	Petroleum Environmental Clean-Up Fund Act
PAH	polynuclear aromatic hydrocarbon
PAL	preventive action limit
PEL	OSHA Permissible Exposure Limit
PCB	polychlorinated biphenyl
pcm	point count method
PE	Professional Engineer
PG	Professional Geologist
PID	photoionization detector
PLM	polarized light microscopy

## ACRONYMS AND ABBREVIATIONS

### AET Standard List

PLP	Permanent List of Priorities (state Superfund)
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
PVOC	petroleum volatile organic compound
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RACM	regulated asbestos containing material
RAP	Response Action Plan
RCRA	Resource Conservation Recovery Act
RCL	residual contaminant level
REC	recognized environmental condition
RI	Remedial Investigation
RL	laboratory reporting limit
ROD	EPA Record of Decision
RP	responsible party
SDS	safety data sheet
SOP	standard operating procedure
SPILLS	WDNR Spills inventory
SQG	RCRA Small Quantity Generator
SREC	suspect recognized environmental condition
SSP	Site Safety Plan
SVE	soil vapor extraction
SVOC	semi-volatile organic compound
SWF/LF	WDNR Solid Waste Facilities/Landfill Sites
TCLP	Toxicity Characteristic Leaching Procedure
TMB	trimethylbenzene
TPH	total petroleum hydrocarbons
TRIS	EPA Toxic Release Inventory System
TSCA	Toxic Substances Control Act
TSD	RCRA Transportation Storage and Disposal inventory
µg/kg	micrograms per kilogram (ppb)
µg/l or µg/L	micrograms per liter (ppb)
µg/m <sup>3</sup>	micrograms per cubic meter
USEPA	United States Environmental Protection Agency (also EPA)
USGS	United States Geological Survey
UST	underground storage tank
VIC	Voluntary Investigation and Cleanup Program

**ACRONYMS AND ABBREVIATIONS****AET Standard List**

VOC	volatile organic compound
WAC	Winconsin Adminstrative Code
WDATCP	Wisconsin Department of Agriculture, Trade, and Consumer Protection
WDHS	Wisconsin Department of Health Services
WDNR	Wisconsin Department of Natural Resources
WDOT	Wisconsin Department of Transportation
WGNHS	Wisconsin Geological and Natural History Survey
WCA	Wetland Conservation Act
WPDES	Wisconsin Pollution Discharge Elimination System
WRRD	Wisconsin Remediation and Redevelopment Database
XRF	x-ray fluorescence

# **Appendix B**

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Environmental Sampling Methods

## ENVIRONMENTAL SAMPLING METHODS – HSA/PUSH PROBE SOIL BORINGS

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### **Contamination Reduction**

The hollow-stem auger (HSA) drill rig and down hole tooling are steam cleaned prior to mobilization. The split-spoon sampler is cleaned between samples to minimize cross contamination. The push-probe down hole tooling is steam cleaned prior to mobilization. New clear plastic liners are used for each drive, and the tooling is cleaned between borings to minimize cross contamination. The cleaning procedure consists of an alconox detergent-water wash using a brush, followed by a tapwater rinse. The alconox wash and rinse water are changed regularly – typically between borings. Certain types of projects may entail more stringent decontamination procedures.

### **Soil Boring Advancement and Limitations**

Split-spoon soil sampling in the standard-penetration soil borings is performed using hollow-stem auger techniques in general accordance with ASTM:D1586, with a modified hammer weight calibrated by pile driving analyzer (PDA). Using this procedure, a 2" outer-diameter (OD) split-spoon soil sampler is driven into the soil by a hammer weight with 60%-65% energy of a 140-lb. weight falling 30". After an initial set of 6", the number of blows required to drive the sampler an additional 12" is known as the penetration resistance or N value, an index of the relative density of cohesionless soils and the consistency of cohesive soils. Samples are typically collected in distinct 18" or 24" depth intervals separated by 12" or 6" depth intervals, using drive rods to extend the boring deeper beneath the ground surface. The split-spoon sampler is opened to expose distinct 18" or 24" sections of soil for classification and sampling.

Soil sampling in the soil borings is performed using a Geoprobe® system. Soil borings are advanced using a vehicle-mounted, hydraulically-powered, soil probing machine, which uses static force (vehicle weight) and percussion to advance small-diameter sampling tools into the subsurface for collecting soil core, soil gas, or groundwater samples. Using this system, a 2" outer-diameter (OD) MacroCore® soil sampler containing a 1.75" OD clear plastic liner is driven into the soil in distinct 48" depth intervals, except where subsurface conditions limit the equipment to shorter drive lengths. In cases where soil recovery is poor, typically due to grain-size or moisture, a smaller "discrete" soil sampler (1.5" OD containing a 1.0" OD clear plastic liner) with a retractable piston tip may be used to collect soil in distinct 24" depth intervals. Probe rods are added to extend borings deeper beneath the surface. The plastic liner is removed from the sampler and cut lengthwise to expose discrete sections of soil for classification and sampling.

Unless actually observed, contacts between soil layers are estimated based on the spacing of samples and the action of the drilling tools. Cobbles, boulders, and other large objects generally cannot be recovered from soil borings, and may be present in the ground even if they are not noted on the boring logs. Impacted soils or buried debris may be present that are not observed due to the spacing and depths of sampling points. Best judgment determinations, based on known site conditions and past experience in similar situations, do not guarantee identification of all impacts.

### **Soil Classification**

As the samples are obtained in the field, they are visually and manually classified by the field staff following the Unified Soil Classification (USC) system in general accordance with ASTM:D2488. Representative portions of the samples may be returned to the laboratory for further observation and for verification of the field identification. Logs of the borings are prepared indicating the depth and identification of the various strata, water level information, and other pertinent information regarding the method of maintaining and advancing the borings.

Boring logs include judgments of the geologic depositional origin. This judgment is primarily based on observations of the soil samples, which can be limited. Observations of the surrounding topography, vegetation, and development can sometimes aid this judgment. Visual/odor observations may aid in assessing impacts but are not relied on exclusively.

### **Soil Sample Vapor Screening**

Soil samples collected directly from the soil samplers are screened with a photoionization detector (PID) for the presence of organic vapors with ionization potentials less than the lamp voltage. The PID is calibrated for direct reading in parts-per-million-volume (PPMv) of a benzene equivalent. Soil samples are collected and screened according to the bag-headspace field screening procedure, which consists of placing freshly collected soil into a polyethylene Whirl-Pak or freezer "baggie" (i.e., bag), sealing the bag to contain an air pocket (i.e., headspace), and allowing 10 to 20 minutes for vapors to disperse from the soil to the headspace. The highest reading upon inserting the PID probe into the bag

## **ENVIRONMENTAL SAMPLING METHODS – HSA/PUSH PROBE SOIL BORINGS**

---

headspace – typically attained within two to five seconds of probe insertion – is recorded on the boring log. Excessive moisture, temperature extremes, ambient vapors, or other unusual field circumstances can affect screening results.

### **Other Field Screening**

For certain sites, field screening may be conducted for additional parameters in accordance with AET's Field Screening Methods Supplemental information sheet.

### **Soil Sampling for Chemical Analysis**

Soil samples obtained for chemical analysis are collected directly from the soil samplers and placed into laboratory-prepared containers with appropriate preservatives, according to laboratory protocols. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

### **Water Level Measurements**

The groundwater level measurements are shown at the bottom of the boring logs. The following information appears under Water Level Measurements on the logs:

- Date and time of measurement
- Sampled Depth: greatest depth of soil sampling at the time of measurement
- Casing Depth: depth to bottom of casing or hollow-stem auger at time of measurement
- Cave-in Depth: tape-measured depth of borehole
- Water Level: tape-measured depth of free water in the borehole

The true depth of the water table at the boring locations may be different from the water levels measured in the boreholes. This is possible because several factors can affect the water-level measurements in the borehole such as permeability of each soil layer in profile, presence of perched water, amount of time between water level readings, and weather conditions.

### **Groundwater Sampling for Chemical Analysis**

Groundwater samples obtained for chemical analysis are collected directly from each borehole/temporary monitoring well by one of two techniques: (1) A new dedicated teflon bailer is lowered down the borehole/temporary monitoring well with new nylon rope or decontaminated downrigger cable; (2) Using a peristaltic pump or check-valve assembly, samples are pumped directly from the borehole/temporary monitoring well through new polyethylene tubing extended to depth through the casing. Samples are collected in laboratory-prepared containers with appropriate preservatives, according to laboratory protocols. For analyses in which field-filtering is required, samples are vacuum-filtered through a new dedicated plastic filter with 0.45- $\mu\text{m}$  pores. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

Because boreholes/temporary monitoring wells are not typically in equilibrium with groundwater, results provide qualitative groundwater data. Purging additional water prior to sampling may improve the data representativeness somewhat. Monitoring wells are necessary to obtain more accurate quantitative groundwater data.

### **Surveying and Abandonment**

Following sampling, ground surface elevations at boring locations are typically measured to the nearest 0.1 foot. If a permanent benchmark of known elevation is unavailable, the measurement is referenced to a nearby temporary benchmark given the arbitrary reference elevation of 100.0 feet. Horizontal location control is typically based on tape measurements from fixed site features. Certain types of projects may entail more stringent measures such as global positioning systems (GPS) or contracting registered surveyors.

Boreholes/temporary monitoring wells are completely backfilled with bentonite and abandoned according to procedures outlined in Chapter NR 141.25 of the Wisconsin Administrative Code A WDNR Borehole Abandonment (3300-5W) form is completed for each soil boring not completed as a monitoring well.

## ENVIRONMENTAL SAMPLING METHODS – MONITORING WELLS

---

### **Contamination Reduction**

The sampling downrigger and electronic water-level indicator are cleaned prior to sampling and between sampling from different monitoring wells. The cleaning procedure consists of an alconox detergent-water wash and distilled water rinse from spray dispensers. New disposable bailers are used for each well.

### **Monitoring Well Installation and Development**

Groundwater monitoring wells and piezometers are constructed and developed in accordance with Wisconsin Administrative Code – Chapter NR 141 requirements. Monitoring Well Construction (4400-113A) and Monitoring Well Development (4400-113B) forms are completed for each well. Typically, monitoring wells are installed in hollow-stem auger (HSA) soil boreholes that have been sampled for environmental parameters.

Monitoring wells are developed by removing a minimum of three to five borehole volumes, until water appears clear.

### **Groundwater Elevation Measurements**

Following monitoring well installation, the top-of-riser elevations are surveyed to the nearest 0.01 feet. If a permanent benchmark of known elevation is unavailable, the survey is referenced to a nearby temporary benchmark given the arbitrary reference elevation of 100.00 feet.

Groundwater elevations are determined by using an electronic water-level indicator. Measurements are obtained by lowering the probe into each well until the groundwater surface is encountered. Measurements, referenced to the top-of-riser elevations, are reported to the nearest 0.01 feet.

### **Groundwater Sampling for Chemical Analysis**

Groundwater samples obtained for chemical analysis are collected directly from each monitoring well using a new disposable bailer lowered down the well with new nylon rope or decontaminated downrigger cable. Samples are decanted directly from the bailer into laboratory-prepared containers with appropriate preservatives. Alternatively, samples may be drawn directly from the submersible pump discharge tubing. For analyses in which field-filtering is required, samples are vacuum-filtered through a new dedicated plastic filter with 0.45- $\mu\text{m}$  pores. The samples are delivered to the analytical laboratory within prescribed holding times, accompanied by proper chain-of-custody forms.

### **Free Product Removal Procedures**

We conducted free product removal procedure as follows:

- Remove well cover and scrape away excess dirt.
- Carefully remove test well plug, bailer, & sock from well casing. Remember that bailer and absorbent socks are tied to the plug.
- Set bailer aside and squeeze product from sock into bucket. After squeezing out sock set aside to dry.
- Measure depth to water/product with a product/groundwater interface probe. Record depth to product, groundwater, and thickness of product in feet.
- Secure bailer to rope or string and insert into well casing. Lower the bailer until contact with water table is made. Allow bailer to drop into the water for no more than one foot. Remove bailer and estimate product thickness. Empty contents of bailer into bucket and record product thickness.
- Continue to lower bailer into well and drop to the water table. Allow bailer to fill with no more than one foot of water/product. Remove bailer and empty contents into bucket. Continue fill bucket. Transfer filled buckets to drum.
- Repeat this process until thickness of free product is less than one inch. Record amount of water/product removed.
- If a groundwater sample will be collected use a new disposable bailer to obtain a water sample. Insert the bailers bottom emptying device and use to fill the appropriate sample bottle.
- Reattach string/rope to well plug, replace bailer and sock into well and cap with well plug. Replace well cover. Replace socks as needed.
- Secure cover on 55-gallon drum.

# **Appendix C**

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WDNR Well Abandonment Form

**Well / Drillhole / Borehole Filling & Sealing Report**

Form 3300-005 (R 4/2015)

Page 1 of 2

**Notice:** Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

 **Verification Only of Fill and Seal****Route to DNR Bureau:** Drinking Water Watershed/Wastewater Remediation/Redevelopment Waste Management Other:**1. Well Location Information**

County

Clark

WI Unique Well # of Removed Well

Hicap #

Latitude / Longitude (see instructions)

44° 62' 69" N  
-90° 35' 61" W

Format Code

 DD DDM

Method Code

 GPS008 SCR002 OTH001

1/4 1/4 SW 1/4 SW

Section

23

or Gov't Lot #

1/4 1/4 SW 1/4 SW

Township

25 N

1/4 1/4 SW 1/4 SW

Range

E

W

1/4 1/4 SW 1/4 SW

1/4 1/4 SW 1/4 SW

Well Street Address

W 888 chili Road

Well City, Village or Town

Chili

Subdivision Name

Lot #

Well ZIP Code

54420

Reason for Removal from Service

Damaged

WI Unique Well # of Replacement Well

# **Appendix D**

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Laboratory Analytical Reports and Chains-of-Custody

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-118785-1

Client Project/Site: Dairi Concepts - 03-05510

For:

American Engineering Testing Inc.

1837 Cty Hwy OO

Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:

11/2/2016 4:02:04 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

**REVIEWED**

*By mneal at 7:28 am, Nov 03, 2016*

LINKS

Review your project  
results through

Total Access

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

### Job ID: 500-118785-1

#### Laboratory: TestAmerica Chicago

##### Narrative

##### Job Narrative 500-118785-1

##### Comments

No additional comments.

##### Receipt

The samples were received on 10/19/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.6° C.

##### GC/MS VOA

Method(s) 8260B: The following samples was diluted due to the nature of the sample matrix: MW-3A (500-118785-3), MW-4R (500-118785-5), MW-5A (500-118785-6) and MW-10 (500-118785-11). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample was outside control limits: MW-10 (500-118785-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### GC VOA

Method(s) WI-GRO: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 490-380207.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-1A****Lab Sample ID: 500-118785-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	1.8		1.0	0.20	ug/L	1		8260B	Total/NA
Benzene	1.9		1.0	0.20	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-2A****Lab Sample ID: 500-118785-2**

No Detections.

**Client Sample ID: MW-3A****Lab Sample ID: 500-118785-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1300		100	17	ug/L	100		8260B	Total/NA
1,3,5-Trimethylbenzene	370		100	17	ug/L	100		8260B	Total/NA
Benzene	3000		100	20	ug/L	100		8260B	Total/NA
Ethylbenzene	1500		100	19	ug/L	100		8260B	Total/NA
Naphthalene	400	J	500	21	ug/L	100		8260B	Total/NA
Toluene	11000		100	17	ug/L	100		8260B	Total/NA
Xylenes, Total	8100		300	58	ug/L	100		8260B	Total/NA

**Client Sample ID: MW-4A****Lab Sample ID: 500-118785-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	43		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	22		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	36		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	53		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	58		0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	32		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	12		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	71		1.5	0.58	ug/L	1		WDNR	Total/NA

**Client Sample ID: MW-4R****Lab Sample ID: 500-118785-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1200		50	8.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	350		50	8.5	ug/L	50		8260B	Total/NA
Benzene	700		50	10	ug/L	50		8260B	Total/NA
Ethylbenzene	1000		50	9.5	ug/L	50		8260B	Total/NA
Naphthalene	500		250	11	ug/L	50		8260B	Total/NA
Toluene	2600		50	8.5	ug/L	50		8260B	Total/NA
Xylenes, Total	3900		150	29	ug/L	50		8260B	Total/NA

**Client Sample ID: MW-5A****Lab Sample ID: 500-118785-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	240		5.0	0.85	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	92		5.0	0.85	ug/L	5		8260B	Total/NA
Benzene	6.0		5.0	1.0	ug/L	5		8260B	Total/NA
Ethylbenzene	55		5.0	0.95	ug/L	5		8260B	Total/NA
Naphthalene	38		25	1.1	ug/L	5		8260B	Total/NA
Toluene	12		5.0	0.85	ug/L	5		8260B	Total/NA
Xylenes, Total	180		15	2.9	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-7****Lab Sample ID: 500-118785-7**

No Detections.

**Client Sample ID: MW-W****Lab Sample ID: 500-118785-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.89		0.50	0.36	ug/L	1		WDNR	Total/NA

**Client Sample ID: MW-E****Lab Sample ID: 500-118785-9**

No Detections.

**Client Sample ID: CMW-1****Lab Sample ID: 500-118785-10**

No Detections.

**Client Sample ID: MW-10****Lab Sample ID: 500-118785-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	930	F1	50	8.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	2000		10	1.7	ug/L	10		8260B	Total/NA
Ethylbenzene	1700		10	1.9	ug/L	10		8260B	Total/NA
Naphthalene	820		50	2.1	ug/L	10		8260B	Total/NA
Toluene	440		10	1.7	ug/L	10		8260B	Total/NA
Xylenes, Total	1500		150	29	ug/L	50		8260B	Total/NA

**Client Sample ID: Trip Blank****Lab Sample ID: 500-118785-12**

No Detections.

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-118785-1	MW-1A	Water	10/17/16 11:15	10/19/16 10:15
500-118785-2	MW-2A	Water	10/17/16 11:30	10/19/16 10:15
500-118785-3	MW-3A	Water	10/17/16 13:45	10/19/16 10:15
500-118785-4	MW-4A	Water	10/17/16 12:00	10/19/16 10:15
500-118785-5	MW-4R	Water	10/17/16 13:15	10/19/16 10:15
500-118785-6	MW-5A	Water	10/17/16 12:15	10/19/16 10:15
500-118785-7	MW-7	Water	10/17/16 11:00	10/19/16 10:15
500-118785-8	MW-W	Water	10/17/16 10:30	10/19/16 10:15
500-118785-9	MW-E	Water	10/17/16 10:30	10/19/16 10:15
500-118785-10	CMW-1	Water	10/17/16 09:50	10/19/16 10:15
500-118785-11	MW-10	Water	10/17/16 12:45	10/19/16 10:15
500-118785-12	Trip Blank	Water	10/17/16 00:00	10/19/16 10:15

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-1A**  
Date Collected: 10/17/16 11:15  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-1**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.17		1.0	0.17	ug/L			10/28/16 12:13	1
<b>1,2-Dichloroethane</b>	<b>1.8</b>		1.0	0.20	ug/L			10/28/16 12:13	1
1,3,5-Trimethylbenzene	<0.17		1.0	0.17	ug/L			10/28/16 12:13	1
<b>Benzene</b>	<b>1.9</b>		1.0	0.20	ug/L			10/28/16 12:13	1
Ethylbenzene	<0.19		1.0	0.19	ug/L			10/28/16 12:13	1
Methyl tert-butyl ether	<0.17		1.0	0.17	ug/L			10/28/16 12:13	1
Naphthalene	<0.21		5.0	0.21	ug/L			10/28/16 12:13	1
Toluene	<0.17		1.0	0.17	ug/L			10/28/16 12:13	1
Xylenes, Total	<0.58		3.0	0.58	ug/L			10/28/16 12:13	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	115		70 - 130					10/28/16 12:13	1
4-Bromofluorobenzene (Surr)	109		70 - 130					10/28/16 12:13	1
Dibromofluoromethane (Surr)	104		70 - 130					10/28/16 12:13	1
Toluene-d8 (Surr)	90		70 - 130					10/28/16 12:13	1

**Client Sample ID: MW-2A**  
Date Collected: 10/17/16 11:30  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-2**  
Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 17:49	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 17:49	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 17:49	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 17:49	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 17:49	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 17:49	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 17:49	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 17:49	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	90		80 - 120					10/21/16 17:49	1

**Client Sample ID: MW-3A**  
Date Collected: 10/17/16 13:45  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-3**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>1300</b>		100	17	ug/L			10/28/16 13:54	100
1,2-Dichloroethane	<20		100	20	ug/L			10/28/16 13:54	100
<b>1,3,5-Trimethylbenzene</b>	<b>370</b>		100	17	ug/L			10/28/16 13:54	100
<b>Benzene</b>	<b>3000</b>		100	20	ug/L			10/28/16 13:54	100
<b>Ethylbenzene</b>	<b>1500</b>		100	19	ug/L			10/28/16 13:54	100
Methyl tert-butyl ether	<17		100	17	ug/L			10/28/16 13:54	100
<b>Naphthalene</b>	<b>400 J</b>		500	21	ug/L			10/28/16 13:54	100
<b>Toluene</b>	<b>11000</b>		100	17	ug/L			10/28/16 13:54	100
<b>Xylenes, Total</b>	<b>8100</b>		300	58	ug/L			10/28/16 13:54	100

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-3A**  
**Date Collected: 10/17/16 13:45**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-3**  
**Matrix: Water**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		10/28/16 13:54	100
4-Bromofluorobenzene (Surr)	109		70 - 130		10/28/16 13:54	100
Dibromofluoromethane (Surr)	93		70 - 130		10/28/16 13:54	100
Toluene-d8 (Surr)	95		70 - 130		10/28/16 13:54	100

**Client Sample ID: MW-4A**  
**Date Collected: 10/17/16 12:00**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-4**  
**Matrix: Water**

Method: WDNR - Wisconsin - Gasoline Range Organics (GC)						
Analyte	Result	Qualifier	RL	MDL	Unit	D
1,2,4-Trimethylbenzene	43		0.50	0.30	ug/L	
1,3,5-Trimethylbenzene	22		0.50	0.30	ug/L	
Benzene	36		0.50	0.36	ug/L	
Ethylbenzene	53		0.50	0.37	ug/L	
Methyl tert-butyl ether	58		0.50	0.24	ug/L	
Naphthalene	32		5.0	2.4	ug/L	
Toluene	12		0.50	0.33	ug/L	
Xylenes, Total	71		1.5	0.58	ug/L	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	95		80 - 120		10/21/16 18:21	1

**Client Sample ID: MW-4R**  
**Date Collected: 10/17/16 13:15**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-5**  
**Matrix: Water**

Method: 8260B - Volatile Organic Compounds (GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D
1,2,4-Trimethylbenzene	1200		50	8.5	ug/L	
1,2-Dichloroethane	<10		50	10	ug/L	
1,3,5-Trimethylbenzene	350		50	8.5	ug/L	
Benzene	700		50	10	ug/L	
Ethylbenzene	1000		50	9.5	ug/L	
Methyl tert-butyl ether	<8.5		50	8.5	ug/L	
Naphthalene	500		250	11	ug/L	
Toluene	2600		50	8.5	ug/L	
Xylenes, Total	3900		150	29	ug/L	
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		10/28/16 13:29	50
4-Bromofluorobenzene (Surr)	95		70 - 130		10/28/16 13:29	50
Dibromofluoromethane (Surr)	98		70 - 130		10/28/16 13:29	50
Toluene-d8 (Surr)	95		70 - 130		10/28/16 13:29	50

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-5A**  
**Date Collected: 10/17/16 12:15**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-6**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	240		5.0	0.85	ug/L			10/28/16 12:38	5
1,2-Dichloroethane	<1.0		5.0	1.0	ug/L			10/28/16 12:38	5
1,3,5-Trimethylbenzene	92		5.0	0.85	ug/L			10/28/16 12:38	5
Benzene	6.0		5.0	1.0	ug/L			10/28/16 12:38	5
Ethylbenzene	55		5.0	0.95	ug/L			10/28/16 12:38	5
Methyl tert-butyl ether	<0.85		5.0	0.85	ug/L			10/28/16 12:38	5
Naphthalene	38		25	1.1	ug/L			10/28/16 12:38	5
Toluene	12		5.0	0.85	ug/L			10/28/16 12:38	5
Xylenes, Total	180		15	2.9	ug/L			10/28/16 12:38	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	117		70 - 130					10/28/16 12:38	5
4-Bromofluorobenzene (Surr)	93		70 - 130					10/28/16 12:38	5
Dibromofluoromethane (Surr)	106		70 - 130					10/28/16 12:38	5
Toluene-d8 (Surr)	92		70 - 130					10/28/16 12:38	5

**Client Sample ID: MW-7**

**Date Collected: 10/17/16 11:00**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-7**  
**Matrix: Water**

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 18:53	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 18:53	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 18:53	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 18:53	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 18:53	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 18:53	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 18:53	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 18:53	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	89		80 - 120					10/21/16 18:53	1

**Client Sample ID: MW-W**

**Date Collected: 10/17/16 10:30**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-8**  
**Matrix: Water**

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 19:25	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 19:25	1
<b>Benzene</b>	<b>0.89</b>		0.50	0.36	ug/L			10/21/16 19:25	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 19:25	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 19:25	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 19:25	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 19:25	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 19:25	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	102		80 - 120					10/21/16 19:25	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-E**

Date Collected: 10/17/16 10:30  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-9**

Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 19:58	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 19:58	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 19:58	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 19:58	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 19:58	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 19:58	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 19:58	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 19:58	1
<b>Surrogate</b>									
a,a,a-Trifluorotoluene	92			80 - 120					
							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
								10/21/16 19:58	1

**Client Sample ID: CMW-1**

Date Collected: 10/17/16 09:50  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-10**

Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 20:30	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 20:30	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 20:30	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 20:30	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 20:30	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 20:30	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 20:30	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 20:30	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	92			80 - 120				10/21/16 20:30	1

**Client Sample ID: MW-10**

Date Collected: 10/17/16 12:45  
Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-11**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>930</b>	<b>F1</b>	50	8.5	ug/L			10/31/16 02:58	50
1,2-Dichloroethane	<2.0		10	2.0	ug/L			10/28/16 13:03	10
<b>1,3,5-Trimethylbenzene</b>	<b>2000</b>		10	1.7	ug/L			10/28/16 13:03	10
Benzene	<2.0		10	2.0	ug/L			10/28/16 13:03	10
<b>Ethylbenzene</b>	<b>1700</b>		10	1.9	ug/L			10/28/16 13:03	10
Methyl tert-butyl ether	<1.7		10	1.7	ug/L			10/28/16 13:03	10
<b>Naphthalene</b>	<b>820</b>		50	2.1	ug/L			10/28/16 13:03	10
Toluene	<b>440</b>		10	1.7	ug/L			10/28/16 13:03	10
<b>Xylenes, Total</b>	<b>1500</b>		150	29	ug/L			10/31/16 02:58	50
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	171	X	70 - 130					10/28/16 13:03	10
1,2-Dichloroethane-d4 (Surr)	92		70 - 130					10/31/16 02:58	50
4-Bromofluorobenzene (Surr)	134	X	70 - 130					10/28/16 13:03	10

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-10**  
**Date Collected: 10/17/16 12:45**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-11**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130		10/31/16 02:58	50
Dibromofluoromethane (Surr)	96		70 - 130		10/28/16 13:03	10
Dibromofluoromethane (Surr)	95		70 - 130		10/31/16 02:58	50
Toluene-d8 (Surr)	94		70 - 130		10/28/16 13:03	10
Toluene-d8 (Surr)	101		70 - 130		10/31/16 02:58	50

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-118785-12**  
**Matrix: Water**

**Date Collected: 10/17/16 00:00**  
**Date Received: 10/19/16 10:15**

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 17:16	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 17:16	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 17:16	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 17:16	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 17:16	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 17:16	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 17:16	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		80 - 120					10/21/16 17:16	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

### GC/MS VOA

#### Analysis Batch: 381919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-118785-1	MW-1A	Total/NA	Water	8260B	5
500-118785-3	MW-3A	Total/NA	Water	8260B	6
500-118785-5	MW-4R	Total/NA	Water	8260B	7
500-118785-6	MW-5A	Total/NA	Water	8260B	8
500-118785-11	MW-10	Total/NA	Water	8260B	9
MB 490-381919/7	Method Blank	Total/NA	Water	8260B	10
LCS 490-381919/3	Lab Control Sample	Total/NA	Water	8260B	11
LCSD 490-381919/4	Lab Control Sample Dup	Total/NA	Water	8260B	12

#### Analysis Batch: 382479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-118785-11	MW-10	Total/NA	Water	8260B	13
MB 490-382479/7	Method Blank	Total/NA	Water	8260B	14
LCS 490-382479/3	Lab Control Sample	Total/NA	Water	8260B	15
LCSD 490-382479/4	Lab Control Sample Dup	Total/NA	Water	8260B	1
500-118785-11 MS	MW-10	Total/NA	Water	8260B	2
500-118785-11 MSD	MW-10	Total/NA	Water	8260B	3

#### Analysis Batch: 382795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-382795/7	Method Blank	Total/NA	Water	8260B	4
LCS 490-382795/3	Lab Control Sample	Total/NA	Water	8260B	5
LCSD 490-382795/4	Lab Control Sample Dup	Total/NA	Water	8260B	6

### GC VOA

#### Analysis Batch: 380207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-118785-2	MW-2A	Total/NA	Water	WDNR	1
500-118785-4	MW-4A	Total/NA	Water	WDNR	2
500-118785-7	MW-7	Total/NA	Water	WDNR	3
500-118785-8	MW-W	Total/NA	Water	WDNR	4
500-118785-9	MW-E	Total/NA	Water	WDNR	5
500-118785-10	CMW-1	Total/NA	Water	WDNR	6
500-118785-12	Trip Blank	Total/NA	Water	WDNR	7
MB 490-380207/6	Method Blank	Total/NA	Water	WDNR	8
LCS 490-380207/3	Lab Control Sample	Total/NA	Water	WDNR	9
LCSD 490-380207/4	Lab Control Sample Dup	Total/NA	Water	WDNR	10

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (70-130)	BFB (70-130)	DBFM (70-130)	TOL (70-130)
500-118785-1	MW-1A	115	109	104	90
500-118785-3	MW-3A	111	109	93	95
500-118785-5	MW-4R	111	95	98	95
500-118785-6	MW-5A	117	93	106	92
500-118785-11	MW-10	171 X	134 X	96	94
500-118785-11	MW-10	92	101	95	101
500-118785-11 MS	MW-10	98	105	97	102
500-118785-11 MSD	MW-10	98	105	95	103
LCS 490-381919/3	Lab Control Sample	117	100	96	92
LCS 490-382479/3	Lab Control Sample	97	99	96	103
LCS 490-382795/3	Lab Control Sample	94	102	101	101
LCSD 490-381919/4	Lab Control Sample Dup	110	97	100	90
LCSD 490-382479/4	Lab Control Sample Dup	98	99	98	101
LCSD 490-382795/4	Lab Control Sample Dup	96	101	99	100
MB 490-381919/7	Method Blank	116	108	104	92
MB 490-382479/7	Method Blank	94	102	96	100
MB 490-382795/7	Method Blank	92	103	98	102

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TFT (80-120)			
500-118785-2	MW-2A	90			
500-118785-4	MW-4A	95			
500-118785-7	MW-7	89			
500-118785-8	MW-W	102			
500-118785-9	MW-E	92			
500-118785-10	CMW-1	92			
500-118785-12	Trip Blank	89			
LCS 490-380207/3	Lab Control Sample	93			
LCSD 490-380207/4	Lab Control Sample Dup	96			
MB 490-380207/6	Method Blank	92			

**Surrogate Legend**

TFT = a,a,a-Trifluorotoluene

TestAmerica Chicago

**QC Sample Results**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Method: 8260B - Volatile Organic Compounds (GC/MS)****Lab Sample ID: MB 490-381919/7****Matrix: Water****Analysis Batch: 381919**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.17		1.0	0.17	ug/L			10/28/16 05:30	1
1,2-Dichloroethane	<0.20		1.0	0.20	ug/L			10/28/16 05:30	1
1,3,5-Trimethylbenzene	<0.17		1.0	0.17	ug/L			10/28/16 05:30	1
Benzene	<0.20		1.0	0.20	ug/L			10/28/16 05:30	1
Ethylbenzene	<0.19		1.0	0.19	ug/L			10/28/16 05:30	1
Methyl tert-butyl ether	<0.17		1.0	0.17	ug/L			10/28/16 05:30	1
Naphthalene	<0.21		5.0	0.21	ug/L			10/28/16 05:30	1
Toluene	<0.17		1.0	0.17	ug/L			10/28/16 05:30	1
Xylenes, Total	<0.58		3.0	0.58	ug/L			10/28/16 05:30	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	116		70 - 130		10/28/16 05:30	1
4-Bromofluorobenzene (Surr)	108		70 - 130		10/28/16 05:30	1
Dibromofluoromethane (Surr)	104		70 - 130		10/28/16 05:30	1
Toluene-d8 (Surr)	92		70 - 130		10/28/16 05:30	1

**Lab Sample ID: LCS 490-381919/3****Matrix: Water****Analysis Batch: 381919**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,2,4-Trimethylbenzene	50.0	47.5		ug/L		95	70 - 130	
1,2-Dichloroethane	50.0	60.2		ug/L		120	70 - 130	
1,3,5-Trimethylbenzene	50.0	48.3		ug/L		97	70 - 130	
Benzene	50.0	47.4		ug/L		95	70 - 130	
Ethylbenzene	50.0	49.3		ug/L		99	70 - 130	
m,p-Xylene	50.0	49.0		ug/L		98	70 - 130	
Methyl tert-butyl ether	50.0	50.5		ug/L		101	70 - 130	
Naphthalene	50.0	57.0		ug/L		114	54 - 150	
o-Xylene	50.0	50.4		ug/L		101	70 - 130	
Toluene	50.0	46.5		ug/L		93	70 - 130	
Xylenes, Total	100	99.4		ug/L		99	70 - 132	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	117		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	92		70 - 130

**Lab Sample ID: LCSD 490-381919/4****Matrix: Water****Analysis Batch: 381919**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result	Qualifier						
1,2,4-Trimethylbenzene	50.0	45.9		ug/L		92	70 - 130	3	13
1,2-Dichloroethane	50.0	55.1		ug/L		110	70 - 130	9	13
1,3,5-Trimethylbenzene	50.0	46.6		ug/L		93	70 - 130	4	14

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-381919/4

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 381919

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier				Limits		
Benzene	50.0	45.3		ug/L	91	70 - 130	4	12	
Ethylbenzene	50.0	48.0		ug/L	96	70 - 130	3	12	
m,p-Xylene	50.0	48.3		ug/L	97	70 - 130	1	12	
Methyl tert-butyl ether	50.0	54.2		ug/L	108	70 - 130	7	16	
Naphthalene	50.0	56.5		ug/L	113	54 - 150	1	15	
o-Xylene	50.0	49.5		ug/L	99	70 - 130	2	11	
Toluene	50.0	42.9		ug/L	86	70 - 130	8	13	
Xylenes, Total	100	97.8		ug/L	98	70 - 132	2	11	

Surrogate LCSD LCSD

%Recovery Qualifier Limits

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110				70 - 130
4-Bromofluorobenzene (Surr)	97				70 - 130
Dibromofluoromethane (Surr)	100				70 - 130
Toluene-d8 (Surr)	90				70 - 130

Lab Sample ID: MB 490-382479/7

Client Sample ID: Method Blank  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382479

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
1,2,4-Trimethylbenzene	<0.17		1.0		0.17	0.17	ug/L		10/30/16 20:06		1
1,2-Dichloroethane	<0.20		1.0		0.20	0.20	ug/L		10/30/16 20:06		1
1,3,5-Trimethylbenzene	<0.17		1.0		0.17	0.17	ug/L		10/30/16 20:06		1
Benzene	<0.20		1.0		0.20	0.20	ug/L		10/30/16 20:06		1
Ethylbenzene	<0.19		1.0		0.19	0.19	ug/L		10/30/16 20:06		1
Methyl tert-butyl ether	<0.17		1.0		0.17	0.17	ug/L		10/30/16 20:06		1
Naphthalene	<0.21		5.0		0.21	0.21	ug/L		10/30/16 20:06		1
Toluene	<0.17		1.0		0.17	0.17	ug/L		10/30/16 20:06		1
Xylenes, Total	<0.58		3.0		0.58	0.58	ug/L		10/30/16 20:06		1

Surrogate MB MB

%Recovery Qualifier Limits

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94				70 - 130		10/30/16 20:06	1
4-Bromofluorobenzene (Surr)	102				70 - 130		10/30/16 20:06	1
Dibromofluoromethane (Surr)	96				70 - 130		10/30/16 20:06	1
Toluene-d8 (Surr)	100				70 - 130		10/30/16 20:06	1

Lab Sample ID: LCS 490-382479/3

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382479

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result	Qualifier				Limits		
1,2,4-Trimethylbenzene	20.0	20.0		ug/L	100	70 - 130			
1,2-Dichloroethane	20.0	20.2		ug/L	101	70 - 130			
1,3,5-Trimethylbenzene	20.0	19.0		ug/L	95	70 - 130			
Benzene	20.0	19.8		ug/L	99	70 - 130			
Ethylbenzene	20.0	19.4		ug/L	97	70 - 130			
m,p-Xylene	20.0	19.2		ug/L	96	70 - 130			
Methyl tert-butyl ether	20.0	21.4		ug/L	107	70 - 130			

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 490-382479/3

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382479

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
Naphthalene	20.0	22.0		ug/L		110	54 - 150
o-Xylene	20.0	19.3		ug/L		96	70 - 130
Toluene	20.0	20.1		ug/L		101	70 - 130
Xylenes, Total	40.0	38.5		ug/L		96	70 - 132

Surrogate	%Recovery	LCS		Limits
		Result	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97			70 - 130
4-Bromofluorobenzene (Surr)	99			70 - 130
Dibromofluoromethane (Surr)	96			70 - 130
Toluene-d8 (Surr)	103			70 - 130

Lab Sample ID: LCSD 490-382479/4

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382479

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.	RPD
		Result	Qualifier					
1,2,4-Trimethylbenzene	20.0	19.6		ug/L		98	70 - 130	2 13
1,2-Dichloroethane	20.0	20.5		ug/L		102	70 - 130	1 13
1,3,5-Trimethylbenzene	20.0	18.9		ug/L		95	70 - 130	1 14
Benzene	20.0	19.3		ug/L		97	70 - 130	2 12
Ethylbenzene	20.0	19.4		ug/L		97	70 - 130	0 12
m,p-Xylene	20.0	18.9		ug/L		94	70 - 130	2 12
Methyl tert-butyl ether	20.0	21.5		ug/L		108	70 - 130	1 16
Naphthalene	20.0	22.2		ug/L		111	54 - 150	1 15
o-Xylene	20.0	19.2		ug/L		96	70 - 130	0 11
Toluene	20.0	19.8		ug/L		99	70 - 130	2 13
Xylenes, Total	40.0	38.1		ug/L		95	70 - 132	1 11

Surrogate	%Recovery	LCSD		Limits
		Result	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98			70 - 130
4-Bromofluorobenzene (Surr)	99			70 - 130
Dibromofluoromethane (Surr)	98			70 - 130
Toluene-d8 (Surr)	101			70 - 130

Lab Sample ID: 500-118785-11 MS

Client Sample ID: MW-10  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec.
				Result	Qualifier				
1,2,4-Trimethylbenzene	930	F1	2500	4930	F1	ug/L		160	64 - 136
1,2-Dichloroethane	<10		2500	2360		ug/L		94	64 - 136
1,3,5-Trimethylbenzene	250		2500	3120		ug/L		115	69 - 139
Benzene	74		2500	2490		ug/L		97	55 - 147
Ethylbenzene	620		2500	3380		ug/L		111	65 - 139
m,p-Xylene	1200		2500	4160		ug/L		118	70 - 130
Methyl tert-butyl ether	<8.5		2500	2410		ug/L		96	55 - 141
Naphthalene	200	J	2500	2810		ug/L		104	32 - 150
o-Xylene	250		2500	2710		ug/L		98	70 - 131

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-118785-11 MS

Client Sample ID: MW-10

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 382479

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Toluene	350		2500	2930		ug/L		103	64 - 136
Xylenes, Total	1500		5000	6870		ug/L		108	69 - 132
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	98			70 - 130					
4-Bromofluorobenzene (Surr)	105			70 - 130					
Dibromofluoromethane (Surr)	97			70 - 130					
Toluene-d8 (Surr)	102			70 - 130					

Lab Sample ID: 500-118785-11 MSD

Client Sample ID: MW-10

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 382479

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
1,2,4-Trimethylbenzene	930	F1	2500	4890	F1	ug/L		159	64 - 136	1	18
1,2-Dichloroethane	<10		2500	2430		ug/L		97	64 - 136	3	22
1,3,5-Trimethylbenzene	250		2500	3140		ug/L		115	69 - 139	0	17
Benzene	74		2500	2520		ug/L		98	55 - 147	1	22
Ethylbenzene	620		2500	3400		ug/L		111	65 - 139	1	18
m,p-Xylene	1200		2500	4180		ug/L		119	70 - 130	0	17
Methyl tert-butyl ether	<8.5		2500	2460		ug/L		98	55 - 141	2	24
Naphthalene	200	J	2500	2820		ug/L		105	32 - 150	0	40
o-Xylene	250		2500	2720		ug/L		99	70 - 131	0	17
Toluene	350		2500	2960		ug/L		104	64 - 136	1	18
Xylenes, Total	1500		5000	6900		ug/L		109	69 - 132	0	17
<b>Surrogate</b>											
1,2-Dichloroethane-d4 (Surr)	98			70 - 130							
4-Bromofluorobenzene (Surr)	105			70 - 130							
Dibromofluoromethane (Surr)	95			70 - 130							
Toluene-d8 (Surr)	103			70 - 130							

Lab Sample ID: MB 490-382795/7

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 382795

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.17		1.0	0.17	ug/L			11/01/16 02:16	1
1,2-Dichloroethane	<0.20		1.0	0.20	ug/L			11/01/16 02:16	1
1,3,5-Trimethylbenzene	<0.17		1.0	0.17	ug/L			11/01/16 02:16	1
Benzene	<0.20		1.0	0.20	ug/L			11/01/16 02:16	1
Ethylbenzene	<0.19		1.0	0.19	ug/L			11/01/16 02:16	1
Methyl tert-butyl ether	<0.17		1.0	0.17	ug/L			11/01/16 02:16	1
Naphthalene	<0.21		5.0	0.21	ug/L			11/01/16 02:16	1
Toluene	<0.17		1.0	0.17	ug/L			11/01/16 02:16	1
Xylenes, Total	<0.58		3.0	0.58	ug/L			11/01/16 02:16	1

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-382795/7

Matrix: Water

Analysis Batch: 382795

 Client Sample ID: Method Blank  
 Prep Type: Total/NA

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	92		70 - 130		11/01/16 02:16	1
4-Bromofluorobenzene (Surr)	103		70 - 130		11/01/16 02:16	1
Dibromofluoromethane (Surr)	98		70 - 130		11/01/16 02:16	1
Toluene-d8 (Surr)	102		70 - 130		11/01/16 02:16	1

Lab Sample ID: LCS 490-382795/3

Matrix: Water

Analysis Batch: 382795

 Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added	Result							
1,2,4-Trimethylbenzene	20.0	19.5	ug/L	97	70 - 130				
1,2-Dichloroethane	20.0	18.7	ug/L	93	70 - 130				
1,3,5-Trimethylbenzene	20.0	19.1	ug/L	96	70 - 130				
Benzene	20.0	19.1	ug/L	96	70 - 130				
Ethylbenzene	20.0	18.9	ug/L	94	70 - 130				
m,p-Xylene	20.0	18.8	ug/L	94	70 - 130				
Methyl tert-butyl ether	20.0	22.2	ug/L	111	70 - 130				
Naphthalene	20.0	18.1	ug/L	90	54 - 150				
o-Xylene	20.0	18.9	ug/L	94	70 - 130				
Toluene	20.0	19.1	ug/L	96	70 - 130				
Xylenes, Total	40.0	37.7	ug/L	94	70 - 132				

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-382795/4

Matrix: Water

Analysis Batch: 382795

 Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Added	Result								
1,2,4-Trimethylbenzene	20.0	21.4	ug/L	107	70 - 130	10	13			
1,2-Dichloroethane	20.0	21.1	ug/L	106	70 - 130	12	13			
1,3,5-Trimethylbenzene	20.0	20.7	ug/L	103	70 - 130	8	14			
Benzene	20.0	21.0	ug/L	105	70 - 130	9	12			
Ethylbenzene	20.0	20.6	ug/L	103	70 - 130	9	12			
m,p-Xylene	20.0	20.3	ug/L	102	70 - 130	8	12			
Methyl tert-butyl ether	20.0	23.7	ug/L	119	70 - 130	7	16			
Naphthalene	20.0	19.8	ug/L	99	54 - 150	9	15			
o-Xylene	20.0	20.5	ug/L	102	70 - 130	8	11			
Toluene	20.0	21.3	ug/L	106	70 - 130	11	13			
Xylenes, Total	40.0	40.8	ug/L	102	70 - 132	8	11			

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	96		70 - 130

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 490-382795/4

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 382795

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
Toluene-d8 (Surr)	100		70 - 130

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-380207/6

Client Sample ID: Method Blank  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 380207

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 16:44	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			10/21/16 16:44	1
Benzene	<0.36		0.50	0.36	ug/L			10/21/16 16:44	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			10/21/16 16:44	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			10/21/16 16:44	1
Naphthalene	<2.4		5.0	2.4	ug/L			10/21/16 16:44	1
Toluene	<0.33		0.50	0.33	ug/L			10/21/16 16:44	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			10/21/16 16:44	1
Surrogate	MB %Recovery	MB Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	92		80 - 120					10/21/16 16:44	1

Lab Sample ID: LCS 490-380207/3

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 380207

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
1,2,4-Trimethylbenzene	20.0	18.2		ug/L		91	60 - 131
1,3,5-Trimethylbenzene	20.0	18.2		ug/L		91	70 - 130
Benzene	20.0	19.3		ug/L		96	69 - 129
Ethylbenzene	20.0	18.6		ug/L		93	70 - 130
Methyl tert-butyl ether	20.0	16.8		ug/L		84	57 - 138
Naphthalene	20.0	14.9		ug/L		75	69 - 133
Toluene	20.0	18.8		ug/L		94	66 - 127
Xylenes, Total	60.0	56.3		ug/L		94	
Surrogate	LCS %Recovery	LCS Qualifier	Limits		D	%Rec	
a,a,a-Trifluorotoluene	93		80 - 120				

Lab Sample ID: LCSD 490-380207/4

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 380207

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD
1,2,4-Trimethylbenzene	20.0	18.7		ug/L		93	60 - 131	2
1,3,5-Trimethylbenzene	20.0	18.7		ug/L		93	70 - 130	2

TestAmerica Chicago

**QC Sample Results**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)****Lab Sample ID: LCSD 490-380207/4****Client Sample ID: Lab Control Sample Dup****Matrix: Water****Prep Type: Total/NA****Analysis Batch: 380207**

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Added	Result	Qualifier				Limits		
Benzene	20.0	19.7		ug/L		98	69 - 129	2	33
Ethylbenzene	20.0	18.8		ug/L		94	70 - 130	1	35
Methyl tert-butyl ether	20.0	16.9		ug/L		85	57 - 138	0	40
Naphthalene	20.0	15.2		ug/L		76	69 - 133	2	48
Toluene	20.0	19.4		ug/L		97	66 - 127	3	34
Xylenes, Total	60.0	57.9		ug/L		97		3	
<i>Surrogate</i>		LCSD	LCSD	Limits					
<i>a,a,a-Trifluorotoluene</i>		%Recovery	Qualifier						
		96		80 - 120					

## Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-1A**  
**Date Collected: 10/17/16 11:15**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	381919	10/28/16 12:13	BBR	TAL NSH

**Client Sample ID: MW-2A**  
**Date Collected: 10/17/16 11:30**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 17:49	A1B	TAL NSH

**Client Sample ID: MW-3A**  
**Date Collected: 10/17/16 13:45**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		100	381919	10/28/16 13:54	BBR	TAL NSH

**Client Sample ID: MW-4A**  
**Date Collected: 10/17/16 12:00**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 18:21	A1B	TAL NSH

**Client Sample ID: MW-4R**  
**Date Collected: 10/17/16 13:15**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	381919	10/28/16 13:29	BBR	TAL NSH

**Client Sample ID: MW-5A**  
**Date Collected: 10/17/16 12:15**  
**Date Received: 10/19/16 10:15**

**Lab Sample ID: 500-118785-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	381919	10/28/16 12:38	BBR	TAL NSH

**Lab Chronicle**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

**Client Sample ID: MW-7**

Date Collected: 10/17/16 11:00  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 18:53	A1B	TAL NSH

**Client Sample ID: MW-W**

Date Collected: 10/17/16 10:30  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-8**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 19:25	A1B	TAL NSH

**Client Sample ID: MW-E**

Date Collected: 10/17/16 10:30  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-9**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 19:58	A1B	TAL NSH

**Client Sample ID: CMW-1**

Date Collected: 10/17/16 09:50  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 20:30	A1B	TAL NSH

**Client Sample ID: MW-10**

Date Collected: 10/17/16 12:45  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	381919	10/28/16 13:03	BBR	TAL NSH
Total/NA	Analysis	8260B		50	382479	10/31/16 02:58	AK1	TAL NSH

**Client Sample ID: Trip Blank**

Date Collected: 10/17/16 00:00  
 Date Received: 10/19/16 10:15

**Lab Sample ID: 500-118785-12**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	380207	10/21/16 17:16	A1B	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Chicago

## Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-118785-1

### Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

### Laboratory: TestAmerica Nashville

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	998020430	08-31-17

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To  Contact: _____  Company: _____  Address: _____  Address: _____  Phone: _____  Fax: _____  E-Mail: _____	(optional)  Bill To  Contact: _____  Company: _____  Address: _____  Address: _____  Phone: _____  Fax: _____  PO#/Reference# <u>18174003</u>
--	---

Page D 26 o

## ***Chain of Custody Record***

Lab Job #: SD-18 1187

Chain of Custody Number: \_\_\_\_\_

Page 1 of 2

Temperature °C of Cooler: 4.6

### Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days

,                   
Requested Due Date

## Sample Disposal

Return to Client

Retu

**Disposal by Lab**

Disposal by Lab

1186 M-4

Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <i>Melinda</i>	Company AET	Date 10-18-16	Time 15:00	Received By Fedt	Company	Date	Time	Lab Courier
Relinquished By	Company	Date	Time	Received By <i>John Sander</i>	Company TAUFE	Date 10/18/16	Time 1015	Shipped
Relinquished By	Company	Date	Time	Received By <i>John Sander</i>	Company	Date	Time	Hand Delivered
Matrix Key WW - Wastewater W - Water S - Soil SL - Sludge MS - Miscellaneous OL - Oil A - Air	SE - Sediment SO - Soil L - Leachate WI - Wipe DW - Drinking Water O - Other	Client Comments <i>PECFA</i>	Lab Comments:					<i>EX SD</i>

AET Project No. 03-05510  
**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.521

Report To  Contact:  Company:  Address:  Address:  Phone:  Fax:  E-Mail:	(optional)	Bill To  Contact:  Company:  Address:  Address:  Phone:  Fax:  PO#/Reference#	(optional)	Page D 27 of  <b>Chain of Custody Record</b>  Lab-Job #: <u>500-118 785</u>  Chain of Custody Number: _____  Page <u>2</u> of <u>2</u>  Temperature °C of Cooler: <u>4.6</u>
--	------------	---	------------	--

### Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days

Requested Due Date

## Sample Disposal

Part 4: Other

Disposal by Lab

1

Archive for \_\_\_\_\_ Month

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <i>Wade</i>	Company <i>AET</i>	Date <i>10/18/16</i>	Time <i>15:00</i>	Received By <i>FedEx</i>	Company	Date	Time	Lab Courier
Relinquished By	Company	Date	Time	Received By <i>April Sandy</i>	Company	Date <i>10/19/16</i>	Time <i>10:15</i>	Shipped
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered
Matrix Key WW - Wastewater W - Water S - Soil SL - Sludge MS - Miscellaneous OL - Oil A - Air				Client Comments <i>DECFA</i>				Lab Comments:

ORIGIN ID:EAUA (715) 861-5045  
 MICHAEL NEAL  
 1837 COUNTY HIGHWAY OO  
 CHIPPEWA FALLS, WI 54729  
 UNITED STATES US

SHIP DATE: 18OCT16  
 ACT WGT: 20.00 LB  
 CAD: 104342606/INET3790

BILL THIRD PARTY

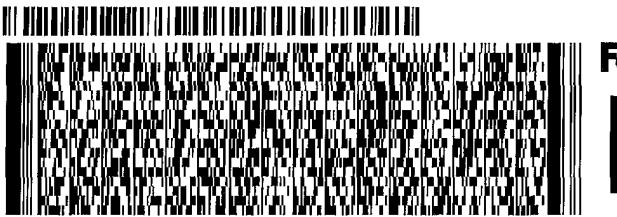
TO SAMPLE RECEIPT  
 TEST AMERICA  
 2417 BOND STREET

UNIVERSITY PARK IL 60484

(708) 534-5200  
 INV:  
 PO:

REF:

DEPT:



544-31FB4214EB

500-118785 Waybill

Page 28 of 34

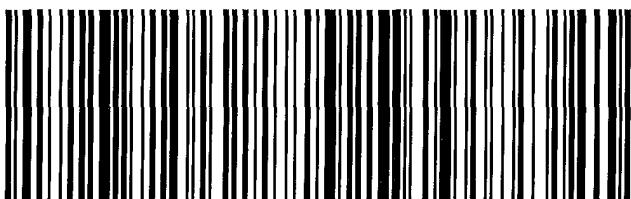
**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income, interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

TRK# 7774 9840 3467  
 0201

NA JOTA

60484  
 ORD  
 IL-US



THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN

## COOLER RECEIPT FORM



500-118785 Chain of Custody

Cooler Received/Opened On 10/20/2016 @ 0920Time Samples Removed From Cooler 14 10 37 Time Samples Placed In Storage 1535 (2 Hour Window)1. Tracking # 2555 (last 4 digits, FedEx) Courier: FedExIR Gun ID 97310166 pH Strip Lot HCS81117 Chlorine Strip Lot 061316v2. Temperature of rep. sample or temp blank when opened: 1.8 Degrees Celsius3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES  NO  NA4. Were custody seals on outside of cooler? YES  NO  NAIf yes, how many and where: Front & Back5. Were the seals intact, signed, and dated correctly? YES  NO  NA6. Were custody papers inside cooler? YES  NO  NAI certify that I opened the cooler and answered questions 1-6 (initial) SJ7. Were custody seals on containers: YES  NO  and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice  Ice-pack Ice (direct contact) Dry ice Other None10. Did all containers arrive in good condition (unbroken)? YES  NO...NA11. Were all container labels complete (#, date, signed, pres., etc)? YES  NO...NA12. Did all container labels and tags agree with custody papers? YES  NO...NA13a. Were VOA vials received? YES  NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES  NO...NA If multiple coolers, sequence # AI certify that I unloaded the cooler and answered questions 7-14 (initial) SJ

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) KG

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) KGI certify that I attached a label with the unique LIMS number to each container (initial) KG21. Were there Non-Conformance issues at login? YES  NO Was a NCM generated? YES...NO...# \_\_\_\_\_

## Chain of Custody Record

**Loc: 500  
118785**

**StAmérica**  
 SALTER IN ENVIRONMENTAL TESTING

x:  
3509.1

1 of 2

Address:	Sampler:	Lab PW:
2960 Foster Creighton Drive,	Fredrick, Sandie J	
City:	E-Mail:	
Nashville	sandie.fredrick@testamericainc.com	Wisconsin
State, Zip:		State Program - Wisconsin
TN, 37204		
Phone:		Job #:
615-726-0177(Tel) 615-726-3404(Fax)		500-118785-1
Email:		Preservation Codes:
		A - HCl
Project Name:	WO#:	M - Hexane
Soils & Waters	Project #:	N - None
Site:	SSOW#:	O - AsH <sub>3</sub> O <sub>2</sub>
		P - Na <sub>2</sub> O <sub>4</sub> S
		D - Nitric Acid
		E - NaHSO <sub>4</sub>
		F - MeOH
		G - Ammonia
		H - Ascorbic Acid
		I - Ice
		J - DI Water
		K - EDTA
		L - EDDA
		M - Acetone
		V - MCAA
		U - TSP-Dextrosehydrate
		W - pH 4-5
		Z - other (specify)

<b>Analysis Requested</b>									
Field Filtered Sample (Yes or No)									
Perform MS/MSD (Yes or No)									
8260B/5030B PVOC+NAP+1,2-DCA									
WI_GRO/5030B PVOC+NAP									
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (water, Soil, Oil, Organic, BT=Issues A/Air)	Preservation Code	Total Number of containers	Special Instructions/Note:		
MVN-1A (500-118785-1)	10/17/16	11:15	Water		X	3			
MVN-2A (500-118785-2)	10/17/16	11:30	Water		X	3			
MVN-3A (500-118785-3)	10/17/16	13:45	Water		X	3			
MVN-4A (500-118785-4)	10/17/16	12:00	Water		X	3			
MVN-4R (500-118785-5)	10/17/16	13:15	Water		X	3			
MVN-5A (500-118785-6)	10/17/16	12:15	Water		X	3			
MVN-7 (500-118785-7)	10/17/16	11:00	Water		X	3			
MVN-W (500-118785-8)	10/17/16	10:30	Water		X	3			
MVN-E (500-118785-9)	10/17/16	10:30	Water		X	3			

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analysis & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

### Possible Hazard Identification

Unconfirmed  
Deliverable Requested: I, II, III, IV, Other (specify)

Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client     Disposal By Lab     Archive For \_\_\_\_\_ Months

Empty Kit Relinquished by:

Date/Time: **10/19/16 1530** Company **TA** Received by: **13** Date/Time: **10/20/16 0920** Company **TA**

Received by:

Date/Time:

Received by:

Date/Time:

Received by:

Date/Time:

Received by:



## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-118785-1

**Login Number:** 118785**List Source:** TestAmerica Chicago**List Number:** 1**Creator:** Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4" in one or more vials, one vial with accpt. headspace
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-118785-1

**Login Number:** 118785**List Number:** 2**Creator:** Gundu, Hozar K**List Source:** TestAmerica Nashville**List Creation:** 10/20/16 03:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-118785-1

**Login Number:** 118785**List Number:** 3**Creator:** Gundi, Hozar K**List Source:** TestAmerica Nashville**List Creation:** 10/20/16 03:53 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-125589-1

Client Project/Site: Dairi Concepts - 03-05510

For:

American Engineering Testing Inc.

1837 Cty Hwy OO

Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal

Authorized for release by:

4/7/2017 4:35:52 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

### LINKS

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results through

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Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

**APPROVED**

*By mneal at 2:30 pm, Apr 10, 2017*

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

### Job ID: 500-125589-1

#### Laboratory: TestAmerica Chicago

#### Narrative

Job Narrative  
500-125589-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 3/24/2017 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

#### GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-1A****Lab Sample ID: 500-125589-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	3.5		1.0	0.39	ug/L	1		8260B	Total/NA
Benzene	4.2		0.50	0.15	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-2A****Lab Sample ID: 500-125589-2**

No Detections.

**Client Sample ID: MW-3****Lab Sample ID: 500-125589-3**

No Detections.

**Client Sample ID: MW-3A****Lab Sample ID: 500-125589-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1400		20	7.2	ug/L	20		8260B	Total/NA
1,2-Dibromoethane (EDB)	56		20	7.7	ug/L	20		8260B	Total/NA
1,3,5-Trimethylbenzene	390		20	5.1	ug/L	20		8260B	Total/NA
Benzene	2900		10	2.9	ug/L	20		8260B	Total/NA
Ethylbenzene	1200		10	3.7	ug/L	20		8260B	Total/NA
Naphthalene	260		20	6.7	ug/L	20		8260B	Total/NA
Toluene - DL	11000		100	30	ug/L	200		8260B	Total/NA
Xylenes, Total - DL	6300		200	44	ug/L	200		8260B	Total/NA

**Client Sample ID: MW-4A****Lab Sample ID: 500-125589-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	33		1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	21		1.0	0.25	ug/L	1		8260B	Total/NA
Benzene	13		0.50	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	34		0.50	0.18	ug/L	1		8260B	Total/NA
Naphthalene	5.9		1.0	0.34	ug/L	1		8260B	Total/NA
Toluene	6.4		0.50	0.15	ug/L	1		8260B	Total/NA
Xylenes, Total	42		1.0	0.22	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-4R****Lab Sample ID: 500-125589-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	290		5.0	1.3	ug/L	5		8260B	Total/NA
Benzene	740		2.5	0.73	ug/L	5		8260B	Total/NA
Naphthalene	190		5.0	1.7	ug/L	5		8260B	Total/NA
1,2,4-Trimethylbenzene - DL	1000		50	18	ug/L	50		8260B	Total/NA
Ethylbenzene - DL	1100		25	9.2	ug/L	50		8260B	Total/NA
Toluene - DL	2400		25	7.6	ug/L	50		8260B	Total/NA
Xylenes, Total - DL	4000		50	11	ug/L	50		8260B	Total/NA

**Client Sample ID: MW-5****Lab Sample ID: 500-125589-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	15		1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.44	J	1.0	0.25	ug/L	1		8260B	Total/NA
Benzene	3.5		0.50	0.15	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-5 (Continued)****Lab Sample ID: 500-125589-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.7		0.50	0.18	ug/L	1		8260B	Total/NA
Naphthalene	2.4		1.0	0.34	ug/L	1		8260B	Total/NA
Toluene	0.26	J	0.50	0.15	ug/L	1		8260B	Total/NA
Xylenes, Total	17		1.0	0.22	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-5A****Lab Sample ID: 500-125589-8**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	950		5.0	1.8	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	440		5.0	1.3	ug/L	5		8260B	Total/NA
Benzene	51		2.5	0.73	ug/L	5		8260B	Total/NA
Ethylbenzene	470		2.5	0.92	ug/L	5		8260B	Total/NA
Naphthalene	110		5.0	1.7	ug/L	5		8260B	Total/NA
Toluene	120		2.5	0.76	ug/L	5		8260B	Total/NA
Xylenes, Total - DL	330		10	2.2	ug/L	10		8260B	Total/NA

**Client Sample ID: MW-6****Lab Sample ID: 500-125589-9**

No Detections.

**Client Sample ID: MW-6A****Lab Sample ID: 500-125589-10**

No Detections.

**Client Sample ID: MW-7****Lab Sample ID: 500-125589-11**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.95	J	1.0	0.39	ug/L	1		8260B	Total/NA
Benzene	0.72		0.50	0.15	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-7A****Lab Sample ID: 500-125589-12**

No Detections.

**Client Sample ID: PZ-7****Lab Sample ID: 500-125589-13**

No Detections.

**Client Sample ID: MW-9****Lab Sample ID: 500-125589-14**

No Detections.

**Client Sample ID: MW-10****Lab Sample ID: 500-125589-15**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	740		5.0	1.8	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	220		5.0	1.3	ug/L	5		8260B	Total/NA
Benzene	54		2.5	0.73	ug/L	5		8260B	Total/NA
Ethylbenzene	590		2.5	0.92	ug/L	5		8260B	Total/NA
Naphthalene	97		5.0	1.7	ug/L	5		8260B	Total/NA
Toluene	420		2.5	0.76	ug/L	5		8260B	Total/NA
Xylenes, Total - DL	1300		50	11	ug/L	50		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

**Detection Summary**

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-E****Lab Sample ID: 500-125589-16** No Detections.**Client Sample ID: MW-W****Lab Sample ID: 500-125589-17**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		0.50	0.15	ug/L	1		8260B	Total/NA

**Client Sample ID: CMW-1****Lab Sample ID: 500-125589-18** No Detections.**Client Sample ID: Trip Blank****Lab Sample ID: 500-125589-19** No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-125589-1	MW-1A	Water	03/22/17 13:00	03/24/17 08:45
500-125589-2	MW-2A	Water	03/22/17 13:15	03/24/17 08:45
500-125589-3	MW-3	Water	03/22/17 10:00	03/24/17 08:45
500-125589-4	MW-3A	Water	03/22/17 15:45	03/24/17 08:45
500-125589-5	MW-4A	Water	03/22/17 14:30	03/24/17 08:45
500-125589-6	MW-4R	Water	03/22/17 14:45	03/24/17 08:45
500-125589-7	MW-5	Water	03/22/17 12:45	03/24/17 08:45
500-125589-8	MW-5A	Water	03/22/17 14:00	03/24/17 08:45
500-125589-9	MW-6	Water	03/22/17 11:00	03/24/17 08:45
500-125589-10	MW-6A	Water	03/22/17 11:45	03/24/17 08:45
500-125589-11	MW-7	Water	03/22/17 10:15	03/24/17 08:45
500-125589-12	MW-7A	Water	03/22/17 12:00	03/24/17 08:45
500-125589-13	PZ-7	Water	03/22/17 10:30	03/24/17 08:45
500-125589-14	MW-9	Water	03/22/17 09:45	03/24/17 08:45
500-125589-15	MW-10	Water	03/22/17 15:15	03/24/17 08:45
500-125589-16	MW-E	Water	03/22/17 12:15	03/24/17 08:45
500-125589-17	MW-W	Water	03/22/17 12:30	03/24/17 08:45
500-125589-18	CMW-1	Water	03/22/17 11:15	03/24/17 08:45
500-125589-19	Trip Blank	Water	03/22/17 00:00	03/24/17 08:45

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-1A**  
Date Collected: 03/22/17 13:00  
Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-1**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 00:59	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 00:59	1
<b>1,2-Dichloroethane</b>	<b>3.5</b>		1.0	0.39	ug/L			04/05/17 00:59	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 00:59	1
<b>Benzene</b>	<b>4.2</b>		0.50	0.15	ug/L			04/05/17 00:59	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 00:59	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 00:59	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 00:59	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 00:59	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 00:59	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
1,2-Dichloroethane-d4 (Surr)	105		71 - 127				04/05/17 00:59	1	
4-Bromofluorobenzene (Surr)	119		71 - 120				04/05/17 00:59	1	
Dibromofluoromethane	94		70 - 120				04/05/17 00:59	1	
Toluene-d8 (Surr)	98		75 - 120				04/05/17 00:59	1	

**Client Sample ID: MW-2A**  
Date Collected: 03/22/17 13:15  
Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-2**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 01:24	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 01:24	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 01:24	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 01:24	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 01:24	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 01:24	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 01:24	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 01:24	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 01:24	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 01:24	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
1,2-Dichloroethane-d4 (Surr)	103		71 - 127				04/05/17 01:24	1	
4-Bromofluorobenzene (Surr)	119		71 - 120				04/05/17 01:24	1	
Dibromofluoromethane	94		70 - 120				04/05/17 01:24	1	
Toluene-d8 (Surr)	99		75 - 120				04/05/17 01:24	1	

**Client Sample ID: MW-3**  
Date Collected: 03/22/17 10:00  
Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-3**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 01:51	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 01:51	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 01:51	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 01:51	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-3****Lab Sample ID: 500-125589-3**

Matrix: Water

Date Collected: 03/22/17 10:00

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 01:51	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 01:51	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 01:51	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 01:51	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 01:51	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 01:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		71 - 127					04/05/17 01:51	1
4-Bromofluorobenzene (Surr)	116		71 - 120					04/05/17 01:51	1
Dibromofluoromethane	95		70 - 120					04/05/17 01:51	1
Toluene-d8 (Surr)	100		75 - 120					04/05/17 01:51	1

**Client Sample ID: MW-3A****Lab Sample ID: 500-125589-4**

Matrix: Water

Date Collected: 03/22/17 15:45

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1400		20	7.2	ug/L			04/05/17 07:55	20
1,2-Dibromoethane (EDB)	56		20	7.7	ug/L			04/05/17 07:55	20
1,2-Dichloroethane	<7.8		20	7.8	ug/L			04/05/17 07:55	20
1,3,5-Trimethylbenzene	390		20	5.1	ug/L			04/05/17 07:55	20
Benzene	2900		10	2.9	ug/L			04/05/17 07:55	20
Ethylbenzene	1200		10	3.7	ug/L			04/05/17 07:55	20
Methyl tert-butyl ether	<7.9		20	7.9	ug/L			04/05/17 07:55	20
Naphthalene	260		20	6.7	ug/L			04/05/17 07:55	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		71 - 127					04/05/17 07:55	20
4-Bromofluorobenzene (Surr)	104		71 - 120					04/05/17 07:55	20
Dibromofluoromethane	84		70 - 120					04/05/17 07:55	20
Toluene-d8 (Surr)	108		75 - 120					04/05/17 07:55	20

**Method: 8260B - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	11000		100	30	ug/L			04/05/17 08:22	200
Xylenes, Total	6300		200	44	ug/L			04/05/17 08:22	200
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		71 - 127					04/05/17 08:22	200
4-Bromofluorobenzene (Surr)	107		71 - 120					04/05/17 08:22	200
Dibromofluoromethane	85		70 - 120					04/05/17 08:22	200
Toluene-d8 (Surr)	107		75 - 120					04/05/17 08:22	200

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-4A**  
**Date Collected: 03/22/17 14:30**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-5**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	33		1.0	0.36	ug/L			04/05/17 04:46	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 04:46	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 04:46	1
1,3,5-Trimethylbenzene	21		1.0	0.25	ug/L			04/05/17 04:46	1
Benzene	13		0.50	0.15	ug/L			04/05/17 04:46	1
Ethylbenzene	34		0.50	0.18	ug/L			04/05/17 04:46	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 04:46	1
Naphthalene	5.9		1.0	0.34	ug/L			04/05/17 04:46	1
Toluene	6.4		0.50	0.15	ug/L			04/05/17 04:46	1
Xylenes, Total	42		1.0	0.22	ug/L			04/05/17 04:46	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	96		71 - 127					04/05/17 04:46	1
4-Bromofluorobenzene (Surr)	104		71 - 120					04/05/17 04:46	1
Dibromofluoromethane	85		70 - 120					04/05/17 04:46	1
Toluene-d8 (Surr)	107		75 - 120					04/05/17 04:46	1

**Client Sample ID: MW-4R**  
**Date Collected: 03/22/17 14:45**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-6**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<1.9		5.0	1.9	ug/L			04/05/17 06:08	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			04/05/17 06:08	5
1,3,5-Trimethylbenzene	290		5.0	1.3	ug/L			04/05/17 06:08	5
Benzene	740		2.5	0.73	ug/L			04/05/17 06:08	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			04/05/17 06:08	5
Naphthalene	190		5.0	1.7	ug/L			04/05/17 06:08	5
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	95		71 - 127					04/05/17 06:08	5
4-Bromofluorobenzene (Surr)	102		71 - 120					04/05/17 06:08	5
Dibromofluoromethane	84		70 - 120					04/05/17 06:08	5
Toluene-d8 (Surr)	108		75 - 120					04/05/17 06:08	5

**Method: 8260B - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1000		50	18	ug/L			04/05/17 06:34	50
Ethylbenzene	1100		25	9.2	ug/L			04/05/17 06:34	50
Toluene	2400		25	7.6	ug/L			04/05/17 06:34	50
Xylenes, Total	4000		50	11	ug/L			04/05/17 06:34	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	96		71 - 127					04/05/17 06:34	50
4-Bromofluorobenzene (Surr)	107		71 - 120					04/05/17 06:34	50
Dibromofluoromethane	85		70 - 120					04/05/17 06:34	50
Toluene-d8 (Surr)	109		75 - 120					04/05/17 06:34	50

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-5****Lab Sample ID: 500-125589-7**

Matrix: Water

Date Collected: 03/22/17 12:45

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	15		1.0	0.36	ug/L			04/05/17 01:08	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 01:08	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 01:08	1

1,3,5-Trimethylbenzene	0.44	J	1.0	0.25	ug/L			04/05/17 01:08	1
Benzene	3.5		0.50	0.15	ug/L			04/05/17 01:08	1
Ethylbenzene	1.7		0.50	0.18	ug/L			04/05/17 01:08	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 01:08	1
Naphthalene	2.4		1.0	0.34	ug/L			04/05/17 01:08	1
Toluene	0.26	J	0.50	0.15	ug/L			04/05/17 01:08	1
Xylenes, Total	17		1.0	0.22	ug/L			04/05/17 01:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		71 - 127		04/05/17 01:08	1
4-Bromofluorobenzene (Surr)	107		71 - 120		04/05/17 01:08	1
Dibromofluoromethane	85		70 - 120		04/05/17 01:08	1
Toluene-d8 (Surr)	108		75 - 120		04/05/17 01:08	1

**Client Sample ID: MW-5A****Lab Sample ID: 500-125589-8**

Matrix: Water

Date Collected: 03/22/17 14:00

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	950		5.0	1.8	ug/L			04/05/17 05:14	5
1,2-Dibromoethane (EDB)	<1.9		5.0	1.9	ug/L			04/05/17 05:14	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			04/05/17 05:14	5

1,3,5-Trimethylbenzene	440		5.0	1.3	ug/L			04/05/17 05:14	5
Benzene	51		2.5	0.73	ug/L			04/05/17 05:14	5
Ethylbenzene	470		2.5	0.92	ug/L			04/05/17 05:14	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			04/05/17 05:14	5
Naphthalene	110		5.0	1.7	ug/L			04/05/17 05:14	5
Toluene	120		2.5	0.76	ug/L			04/05/17 05:14	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		71 - 127		04/05/17 05:14	5
4-Bromofluorobenzene (Surr)	106		71 - 120		04/05/17 05:14	5
Dibromofluoromethane	82		70 - 120		04/05/17 05:14	5
Toluene-d8 (Surr)	108		75 - 120		04/05/17 05:14	5

**Method: 8260B - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	330		10	2.2	ug/L			04/05/17 05:41	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		71 - 127		04/05/17 05:41	10
4-Bromofluorobenzene (Surr)	107		71 - 120		04/05/17 05:41	10
Dibromofluoromethane	84		70 - 120		04/05/17 05:41	10
Toluene-d8 (Surr)	108		75 - 120		04/05/17 05:41	10

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-6**

Date Collected: 03/22/17 11:00

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-9**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 02:16	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 02:16	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 02:16	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 02:16	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 02:16	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 02:16	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 02:16	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 02:16	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 02:16	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 02:16	1
<b>Surrogate</b>		%Recovery	Qualifier	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		100		71 - 127				04/05/17 02:16	1
4-Bromofluorobenzene (Surr)		115		71 - 120				04/05/17 02:16	1
Dibromofluoromethane		94		70 - 120				04/05/17 02:16	1
Toluene-d8 (Surr)		100		75 - 120				04/05/17 02:16	1

**Client Sample ID: MW-6A**

Date Collected: 03/22/17 11:45

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-10**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 02:42	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 02:42	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 02:42	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 02:42	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 02:42	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 02:42	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 02:42	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 02:42	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 02:42	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 02:42	1
<b>Surrogate</b>		%Recovery	Qualifier	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)		100		71 - 127				04/05/17 02:42	1
4-Bromofluorobenzene (Surr)		116		71 - 120				04/05/17 02:42	1
Dibromofluoromethane		93		70 - 120				04/05/17 02:42	1
Toluene-d8 (Surr)		99		75 - 120				04/05/17 02:42	1

**Client Sample ID: MW-7**

Date Collected: 03/22/17 10:15

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-11**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 02:03	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 02:03	1
<b>1,2-Dichloroethane</b>	<b>0.95</b>	<b>J</b>	1.0	0.39	ug/L			04/05/17 02:03	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 02:03	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-7**

Date Collected: 03/22/17 10:15

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-11**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.72		0.50	0.15	ug/L			04/05/17 02:03	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 02:03	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 02:03	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 02:03	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 02:03	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 02:03	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	98			71 - 127				04/05/17 02:03	1
4-Bromofluorobenzene (Surr)	110			71 - 120				04/05/17 02:03	1
Dibromofluoromethane	83			70 - 120				04/05/17 02:03	1
Toluene-d8 (Surr)	109			75 - 120				04/05/17 02:03	1

**Client Sample ID: MW-7A**

Date Collected: 03/22/17 12:00

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-12**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 02:30	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 02:30	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 02:30	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 02:30	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 02:30	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 02:30	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 02:30	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 02:30	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 02:30	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 02:30	1
<b>Surrogate</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99			71 - 127				04/05/17 02:30	1
4-Bromofluorobenzene (Surr)	109			71 - 120				04/05/17 02:30	1
Dibromofluoromethane	85			70 - 120				04/05/17 02:30	1
Toluene-d8 (Surr)	109			75 - 120				04/05/17 02:30	1

**Client Sample ID: PZ-7**

Date Collected: 03/22/17 10:30

Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-13**

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 02:58	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 02:58	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 02:58	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 02:58	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 02:58	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 02:58	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 02:58	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 02:58	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: PZ-7****Lab Sample ID: 500-125589-13**

Matrix: Water

Date Collected: 03/22/17 10:30

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 02:58	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 02:58	1
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	100		71 - 127				Prepared	04/05/17 02:58	1
4-Bromofluorobenzene (Surr)	110		71 - 120					04/05/17 02:58	1
Dibromofluoromethane	84		70 - 120					04/05/17 02:58	1
Toluene-d8 (Surr)	111		75 - 120					04/05/17 02:58	1

**Client Sample ID: MW-9****Lab Sample ID: 500-125589-14**

Matrix: Water

Date Collected: 03/22/17 09:45

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 03:25	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 03:25	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 03:25	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 03:25	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 03:25	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 03:25	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 03:25	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 03:25	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 03:25	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 03:25	1
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	98		71 - 127				Prepared	04/05/17 03:25	1
4-Bromofluorobenzene (Surr)	106		71 - 120					04/05/17 03:25	1
Dibromofluoromethane	84		70 - 120					04/05/17 03:25	1
Toluene-d8 (Surr)	108		75 - 120					04/05/17 03:25	1

**Client Sample ID: MW-10****Lab Sample ID: 500-125589-15**

Matrix: Water

Date Collected: 03/22/17 15:15

Date Received: 03/24/17 08:45

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>740</b>		5.0	1.8	ug/L			04/05/17 07:01	5
1,2-Dibromoethane (EDB)	<1.9		5.0	1.9	ug/L			04/05/17 07:01	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			04/05/17 07:01	5
<b>1,3,5-Trimethylbenzene</b>	<b>220</b>		5.0	1.3	ug/L			04/05/17 07:01	5
<b>Benzene</b>	<b>54</b>		2.5	0.73	ug/L			04/05/17 07:01	5
<b>Ethylbenzene</b>	<b>590</b>		2.5	0.92	ug/L			04/05/17 07:01	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			04/05/17 07:01	5
<b>Naphthalene</b>	<b>97</b>		5.0	1.7	ug/L			04/05/17 07:01	5
<b>Toluene</b>	<b>420</b>		2.5	0.76	ug/L			04/05/17 07:01	5
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	94		71 - 127				Prepared	04/05/17 07:01	5
4-Bromofluorobenzene (Surr)	105		71 - 120					04/05/17 07:01	5

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-10**  
**Date Collected: 03/22/17 15:15**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-15**  
**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	82		70 - 120		04/05/17 07:01	5
Toluene-d8 (Surr)	108		75 - 120		04/05/17 07:01	5

## Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	1300		50	11	ug/L			04/05/17 07:28	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		71 - 127					04/05/17 07:28	50
4-Bromofluorobenzene (Surr)	107		71 - 120					04/05/17 07:28	50
Dibromofluoromethane	83		70 - 120					04/05/17 07:28	50
Toluene-d8 (Surr)	107		75 - 120					04/05/17 07:28	50

**Client Sample ID: MW-E**

**Lab Sample ID: 500-125589-16**

**Matrix: Water**

**Date Collected: 03/22/17 12:15**  
**Date Received: 03/24/17 08:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 01:36	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 01:36	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 01:36	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 01:36	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 01:36	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 01:36	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 01:36	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 01:36	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 01:36	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 01:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		71 - 127					04/05/17 01:36	1
4-Bromofluorobenzene (Surr)	105		71 - 120					04/05/17 01:36	1
Dibromofluoromethane	84		70 - 120					04/05/17 01:36	1
Toluene-d8 (Surr)	109		75 - 120					04/05/17 01:36	1

**Client Sample ID: MW-W**

**Lab Sample ID: 500-125589-17**

**Matrix: Water**

**Date Collected: 03/22/17 12:30**  
**Date Received: 03/24/17 08:45**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 03:52	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 03:52	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 03:52	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 03:52	1
<b>Benzene</b>	<b>1.3</b>		0.50	0.15	ug/L			04/05/17 03:52	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 03:52	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 03:52	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 03:52	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-W**  
**Date Collected: 03/22/17 12:30**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-17**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 03:52	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 03:52	1
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	98		71 - 127				Prepared	04/05/17 03:52	1
4-Bromofluorobenzene (Surr)	107		71 - 120					04/05/17 03:52	1
Dibromofluoromethane	84		70 - 120					04/05/17 03:52	1
Toluene-d8 (Surr)	109		75 - 120					04/05/17 03:52	1

**Client Sample ID: CMW-1**  
**Date Collected: 03/22/17 11:15**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-18**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 04:19	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 04:19	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 04:19	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 04:19	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 04:19	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 04:19	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 04:19	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 04:19	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 04:19	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 04:19	1
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	100		71 - 127				Prepared	04/05/17 04:19	1
4-Bromofluorobenzene (Surr)	106		71 - 120					04/05/17 04:19	1
Dibromofluoromethane	85		70 - 120					04/05/17 04:19	1
Toluene-d8 (Surr)	107		75 - 120					04/05/17 04:19	1

**Client Sample ID: Trip Blank**  
**Date Collected: 03/22/17 00:00**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-19**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 00:32	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 00:32	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 00:32	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 00:32	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 00:32	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 00:32	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 00:32	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 00:32	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 00:32	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 00:32	1
<b>Surrogate</b>									
1,2-Dichloroethane-d4 (Surr)	101		71 - 127				Prepared	04/05/17 00:32	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: Trip Blank**  
**Date Collected: 03/22/17 00:00**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-19**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		71 - 120		04/05/17 00:32	1
Dibromofluoromethane	94		70 - 120		04/05/17 00:32	1
Toluene-d8 (Surr)	99		75 - 120		04/05/17 00:32	1

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## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

### GC/MS VOA

#### Analysis Batch: 378707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-125589-4	MW-3A	Total/NA	Water	8260B	5
500-125589-4 - DL	MW-3A	Total/NA	Water	8260B	6
500-125589-5	MW-4A	Total/NA	Water	8260B	7
500-125589-6	MW-4R	Total/NA	Water	8260B	8
500-125589-6 - DL	MW-4R	Total/NA	Water	8260B	9
500-125589-7	MW-5	Total/NA	Water	8260B	10
500-125589-8	MW-5A	Total/NA	Water	8260B	11
500-125589-8 - DL	MW-5A	Total/NA	Water	8260B	12
500-125589-11	MW-7	Total/NA	Water	8260B	13
500-125589-12	MW-7A	Total/NA	Water	8260B	14
500-125589-13	PZ-7	Total/NA	Water	8260B	15
500-125589-14	MW-9	Total/NA	Water	8260B	
500-125589-15	MW-10	Total/NA	Water	8260B	
500-125589-15 - DL	MW-10	Total/NA	Water	8260B	
500-125589-16	MW-E	Total/NA	Water	8260B	
500-125589-17	MW-W	Total/NA	Water	8260B	
500-125589-18	CMW-1	Total/NA	Water	8260B	
MB 500-378707/6	Method Blank	Total/NA	Water	8260B	
LCS 500-378707/5	Lab Control Sample	Total/NA	Water	8260B	
500-125589-7 MS	MW-5	Total/NA	Water	8260B	
500-125589-7 MSD	MW-5	Total/NA	Water	8260B	

#### Analysis Batch: 378723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-125589-1	MW-1A	Total/NA	Water	8260B	
500-125589-2	MW-2A	Total/NA	Water	8260B	
500-125589-3	MW-3	Total/NA	Water	8260B	
500-125589-9	MW-6	Total/NA	Water	8260B	
500-125589-10	MW-6A	Total/NA	Water	8260B	
500-125589-19	Trip Blank	Total/NA	Water	8260B	
MB 500-378723/6	Method Blank	Total/NA	Water	8260B	
LCS 500-378723/4	Lab Control Sample	Total/NA	Water	8260B	

## Surrogate Summary

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (71-127)	BFB (71-120)	DBFM (70-120)	TOL (75-120)
500-125589-1	MW-1A	105	119	94	98
500-125589-2	MW-2A	103	119	94	99
500-125589-3	MW-3	102	116	95	100
500-125589-4	MW-3A	95	104	84	108
500-125589-4 - DL	MW-3A	98	107	85	107
500-125589-5	MW-4A	96	104	85	107
500-125589-6	MW-4R	95	102	84	108
500-125589-6 - DL	MW-4R	96	107	85	109
500-125589-7	MW-5	96	107	85	108
500-125589-7 MS	MW-5	97	107	91	108
500-125589-7 MSD	MW-5	95	106	91	106
500-125589-8	MW-5A	94	106	82	108
500-125589-8 - DL	MW-5A	95	107	84	108
500-125589-9	MW-6	100	115	94	100
500-125589-10	MW-6A	100	116	93	99
500-125589-11	MW-7	98	110	83	109
500-125589-12	MW-7A	99	109	85	109
500-125589-13	PZ-7	100	110	84	111
500-125589-14	MW-9	98	106	84	108
500-125589-15	MW-10	94	105	82	108
500-125589-15 - DL	MW-10	97	107	83	107
500-125589-16	MW-E	98	105	84	109
500-125589-17	MW-W	98	107	84	109
500-125589-18	CMW-1	100	106	85	107
500-125589-19	Trip Blank	101	116	94	99
LCS 500-378707/5	Lab Control Sample	101	106	94	106
LCS 500-378723/4	Lab Control Sample	100	110	94	97
MB 500-378707/6	Method Blank	100	109	90	106
MB 500-378723/6	Method Blank	101	115	93	99

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-378707/6

Matrix: Water

Analysis Batch: 378707

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/05/17 00:41	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/05/17 00:41	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/05/17 00:41	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/05/17 00:41	1
Benzene	<0.15		0.50	0.15	ug/L			04/05/17 00:41	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/05/17 00:41	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/05/17 00:41	1
Naphthalene	<0.34		1.0	0.34	ug/L			04/05/17 00:41	1
Toluene	<0.15		0.50	0.15	ug/L			04/05/17 00:41	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/05/17 00:41	1

MB MB

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		71 - 127		04/05/17 00:41	1
4-Bromofluorobenzene (Surr)	109		71 - 120		04/05/17 00:41	1
Dibromofluoromethane	90		70 - 120		04/05/17 00:41	1
Toluene-d8 (Surr)	106		75 - 120		04/05/17 00:41	1

Lab Sample ID: LCS 500-378707/5

Matrix: Water

Analysis Batch: 378707

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,2,4-Trimethylbenzene	50.0	51.8		ug/L		104	70 - 125	
1,2-Dibromoethane (EDB)	50.0	51.4		ug/L		103	70 - 125	
1,2-Dichloroethane	50.0	52.3		ug/L		105	70 - 125	
1,3,5-Trimethylbenzene	50.0	52.5		ug/L		105	70 - 125	
Benzene	50.0	50.2		ug/L		100	70 - 125	
Ethylbenzene	50.0	55.1		ug/L		110	70 - 125	
Methyl tert-butyl ether	50.0	45.9		ug/L		92	67 - 125	
Naphthalene	50.0	38.3		ug/L		77	50 - 136	
Toluene	50.0	54.2		ug/L		108	70 - 125	
Xylenes, Total	100	108		ug/L		108	70 - 125	

LCS LCS

Surrogate	MB	MB	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		71 - 127
4-Bromofluorobenzene (Surr)	106		71 - 120
Dibromofluoromethane	94		70 - 120
Toluene-d8 (Surr)	106		75 - 120

Lab Sample ID: 500-125589-7 MS

Matrix: Water

Analysis Batch: 378707

**Client Sample ID:** MW-5  
**Prep Type:** Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
1,2,4-Trimethylbenzene	15		50.0	64.4		ug/L		98	70 - 125	
1,2-Dibromoethane (EDB)	<0.39		50.0	46.1		ug/L		92	70 - 125	
1,2-Dichloroethane	<0.39		50.0	46.1		ug/L		92	70 - 125	

TestAmerica Chicago

**QC Sample Results**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)****Lab Sample ID: 500-125589-7 MS****Matrix: Water****Analysis Batch: 378707**
**Client Sample ID: MW-5  
 Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,3,5-Trimethylbenzene	0.44	J	50.0	50.4		ug/L		100	70 - 125
Benzene	3.5		50.0	48.3		ug/L		90	70 - 125
Ethylbenzene	1.7		50.0	54.0		ug/L		105	70 - 125
Methyl tert-butyl ether	<0.39		50.0	40.0		ug/L		80	67 - 125
Naphthalene	2.4		50.0	35.5		ug/L		66	50 - 136
Toluene	0.26	J	50.0	52.0		ug/L		103	70 - 125
Xylenes, Total	17		100	118		ug/L		101	70 - 125

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		71 - 127
4-Bromofluorobenzene (Surr)	107		71 - 120
Dibromofluoromethane	91		70 - 120
Toluene-d8 (Surr)	108		75 - 120

**Lab Sample ID: 500-125589-7 MSD****Matrix: Water****Analysis Batch: 378707**
**Client Sample ID: MW-5  
 Prep Type: Total/NA**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,2,4-Trimethylbenzene	15		50.0	65.2		ug/L		100	70 - 125
1,2-Dibromoethane (EDB)	<0.39		50.0	46.4		ug/L		93	70 - 125
1,2-Dichloroethane	<0.39		50.0	46.6		ug/L		93	70 - 125
1,3,5-Trimethylbenzene	0.44	J	50.0	50.8		ug/L		101	70 - 125
Benzene	3.5		50.0	48.7		ug/L		90	70 - 125
Ethylbenzene	1.7		50.0	52.7		ug/L		102	70 - 125
Methyl tert-butyl ether	<0.39		50.0	39.9		ug/L		80	67 - 125
Naphthalene	2.4		50.0	41.3		ug/L		78	50 - 136
Toluene	0.26	J	50.0	50.1		ug/L		100	70 - 125
Xylenes, Total	17		100	116		ug/L		99	70 - 125

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	95		71 - 127
4-Bromofluorobenzene (Surr)	106		71 - 120
Dibromofluoromethane	91		70 - 120
Toluene-d8 (Surr)	106		75 - 120

**Lab Sample ID: MB 500-378723/6****Matrix: Water****Analysis Batch: 378723**
**Client Sample ID: Method Blank  
 Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			04/04/17 23:41	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			04/04/17 23:41	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			04/04/17 23:41	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			04/04/17 23:41	1
Benzene	<0.15		0.50	0.15	ug/L			04/04/17 23:41	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			04/04/17 23:41	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			04/04/17 23:41	1

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-378723/6

Matrix: Water

Analysis Batch: 378723

 Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	<0.34		1.0	0.34	ug/L			04/04/17 23:41	1
Toluene	<0.15		0.50	0.15	ug/L			04/04/17 23:41	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			04/04/17 23:41	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	101		71 - 127			1
4-Bromofluorobenzene (Surr)	115		71 - 120			1
Dibromofluoromethane	93		70 - 120			1
Toluene-d8 (Surr)	99		75 - 120			1

Lab Sample ID: LCS 500-378723/4

Matrix: Water

Analysis Batch: 378723

 Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
1,2,4-Trimethylbenzene	50.0	49.5		ug/L		99	70 - 125	
1,2-Dibromoethane (EDB)	50.0	43.4		ug/L		87	70 - 125	
1,2-Dichloroethane	50.0	49.4		ug/L		99	70 - 125	
1,3,5-Trimethylbenzene	50.0	50.7		ug/L		101	70 - 125	
Benzene	50.0	45.6		ug/L		91	70 - 125	
Ethylbenzene	50.0	47.1		ug/L		94	70 - 125	
Methyl tert-butyl ether	50.0	42.0		ug/L		84	67 - 125	
Naphthalene	50.0	25.1		ug/L		50	50 - 136	
Toluene	50.0	48.6		ug/L		97	70 - 125	
Xylenes, Total	100	95.4		ug/L		95	70 - 125	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		71 - 127
4-Bromofluorobenzene (Surr)	110		71 - 120
Dibromofluoromethane	94		70 - 120
Toluene-d8 (Surr)	97		75 - 120

## Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-1A**  
**Date Collected: 03/22/17 13:00**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 00:59	JMP	TAL CHI

**Client Sample ID: MW-2A**  
**Date Collected: 03/22/17 13:15**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 01:24	JMP	TAL CHI

**Client Sample ID: MW-3**  
**Date Collected: 03/22/17 10:00**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 01:51	JMP	TAL CHI

**Client Sample ID: MW-3A**  
**Date Collected: 03/22/17 15:45**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	378707	04/05/17 07:55	JMP	TAL CHI
Total/NA	Analysis	8260B	DL	200	378707	04/05/17 08:22	JMP	TAL CHI

**Client Sample ID: MW-4A**  
**Date Collected: 03/22/17 14:30**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 04:46	JMP	TAL CHI

**Client Sample ID: MW-4R**  
**Date Collected: 03/22/17 14:45**  
**Date Received: 03/24/17 08:45**

**Lab Sample ID: 500-125589-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	378707	04/05/17 06:08	JMP	TAL CHI
Total/NA	Analysis	8260B	DL	50	378707	04/05/17 06:34	JMP	TAL CHI

**Lab Chronicle**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: MW-5**

Date Collected: 03/22/17 12:45  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 01:08	JMP	TAL CHI

**Client Sample ID: MW-5A**

Date Collected: 03/22/17 14:00  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-8**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	378707	04/05/17 05:14	JMP	TAL CHI
Total/NA	Analysis	8260B	DL	10	378707	04/05/17 05:41	JMP	TAL CHI

**Client Sample ID: MW-6**

Date Collected: 03/22/17 11:00  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-9**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 02:16	JMP	TAL CHI

**Client Sample ID: MW-6A**

Date Collected: 03/22/17 11:45  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 02:42	JMP	TAL CHI

**Client Sample ID: MW-7**

Date Collected: 03/22/17 10:15  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 02:03	JMP	TAL CHI

**Client Sample ID: MW-7A**

Date Collected: 03/22/17 12:00  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-12**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 02:30	JMP	TAL CHI

**Lab Chronicle**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: PZ-7**

Date Collected: 03/22/17 10:30  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-13**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 02:58	JMP	TAL CHI

**Client Sample ID: MW-9**

Date Collected: 03/22/17 09:45  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-14**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 03:25	JMP	TAL CHI

**Client Sample ID: MW-10**

Date Collected: 03/22/17 15:15  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-15**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	378707	04/05/17 07:01	JMP	TAL CHI
Total/NA	Analysis	8260B	DL	50	378707	04/05/17 07:28	JMP	TAL CHI

**Client Sample ID: MW-E**

Date Collected: 03/22/17 12:15  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-16**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 01:36	JMP	TAL CHI

**Client Sample ID: MW-W**

Date Collected: 03/22/17 12:30  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-17**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 03:52	JMP	TAL CHI

**Client Sample ID: CMW-1**

Date Collected: 03/22/17 11:15  
 Date Received: 03/24/17 08:45

**Lab Sample ID: 500-125589-18**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378707	04/05/17 04:19	JMP	TAL CHI

**Lab Chronicle**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

**Client Sample ID: Trip Blank****Lab Sample ID: 500-125589-19****Matrix: Water**

**Date Collected:** 03/22/17 00:00  
**Date Received:** 03/24/17 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	378723	04/05/17 00:32	JMP	TAL CHI

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-125589-1

### Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

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**TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211**Chain of Custody Record**

Lab Job #: 500-125589

Chain of Custody Number:

Page 1 of 2

Temperature °C of Cooler: 22

Client		Client Project #		Preservative		(optional)		Bill To		(optional)			
Project Name		Address:		Parameter		Contact:		Company:		Address:			
Project Location/State		Lab Project #		E-Mail:		Phone:		Fax:		Phone:			
Sampler	Michael R. Neal	Lab PM	Sondre F.	PO# Reference#	18174003	Preservative Key							
Lab ID	MS/MSD	Sample ID	Sampling	# of Containers	Matrix	PVCC + HDPE	+ Vials + DB						
1		MW-1A	3-22-17 12:00	3	W	X							
2		MW-2A	13:15	3	W	X							
3		MW-3	10:00	3	W	X							
4		MW-3A	15:45	3	W	X							
5		MW-4A	14:30	3	W	X							
6		MW-4R	14:45	3	W	X							
7		MW-5	12:45	3	W	X							
8		MW-5A	14:00	3	W	X							
9		MW-6	11:00	3	W	X							
10		MW-6A	11:45	3	W	X							

## Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other  Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
<i>AET</i>		3-23-17	14:30	<i>Fed X</i>				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped
				<i>John Saenz</i>	TACI	03/24/17	0845	<i>FX STD</i>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered

Matrix Key  
WW - Wastewater      SE - Sediment  
W - Water              SO - Soil  
S - Soil                L - Leachate  
SL - Sludge            WI - Wipe  
MS - Miscellaneous    DW - Drinking Water  
OL - Oil                O - Other  
A - Air

Client Comments  
*PECFA*

Lab Comments:  
4A - 2 vials  
4R 3A - 1 vial headspace

(optional)  
 Report To \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

(optional)  
 Bill To \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 18174003

**Chain of Custody Record**Lab Job #: 500-125589

Chain of Custody Number: \_\_\_\_\_

Page 2 of 2Temperature °C of Cooler: 22

Preservative Key

1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Client ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Parameter	Preservative	1	PO# C + 12-02-09 + NAA + 11-03 + ED 3	18174003	Comments
			Date	Time								
11		MW-7	3-22-17	10:15	3	W						
12		MW-7A		12:00	3	W	X					
13		P2-7		10:30	3	W	X					
14		MW-9		9:45	3	W	X					
15		MW-10		15:15	3	W	X					
16		MW-E		12:15	3	W	X					
17		MW-W		12:30	3	W	X					
18		C-MW-1		11:15	3	W	X					
19		Trip Blank		-	1	W	X					

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

## Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
<i>John Taylor</i>	AET	3-23-17	14:30	<i>Fed +</i>				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped <i>FX STD</i>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered

Matrix Key  
 WW - Wastewater  
 W - Water  
 S - Soil  
 SL - Sludge  
 MS - Miscellaneous  
 OL - Oil  
 A - Air  
 SE - Sediment  
 SO - Soil  
 L - Leachate  
 WI - Wipe  
 DW - Drinking Water  
 O - Other

## Client Comments

*DECFA*

## Lab Comments:

ORIGIN ID:EAUA (715) 861-5045  
 MICHAEL NEAL  
 1837 COUNTY HIGHWAY OO  
 CHIPPEWA FALLS, WI 54729  
 UNITED STATES US

SHIP DATE: 23MAR17  
 ACTWGWT: 34.00 LB  
 CAD: 104342606/NET3850

BILL THIRD PARTY

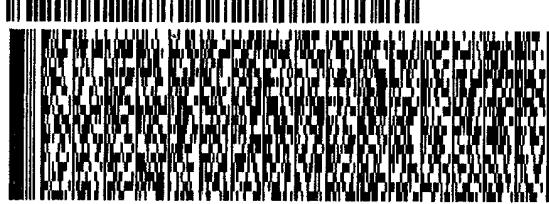
TO: SAMPLE RECEIPT  
 TEST AMERICA  
 2417 BOND STREET

UNIVERSITY PARK IL 60484

(708) 534-5200  
 INV:  
 PO:

REF:

DEPT:



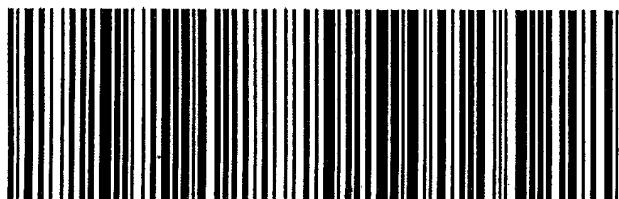
54631 ADB53C1

TRK#  
 0201 7787 2652 9330

FRI - 24 MAR 3:00P  
 STANDARD OVERNIGHT

60484  
 IL-US ORD

NA JOTA

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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500-125589 Waybill



## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-125589-1

**Login Number:** 125589**List Source:** TestAmerica Chicago**List Number:** 1**Creator:** Sanchez, Ariel M**Question****Answer****Comment**

Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	Headspace larger than 1/4".
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-129011-1

Client Project/Site: Dairi Concepts - 03-05510

For:

American Engineering Testing Inc.

1837 Cty Hwy OO

Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal

Authorized for release by:

6/14/2017 2:57:27 PM

Sandie Fredrick, Project Manager II

(920)261-1660

sandie.fredrick@testamericainc.com

### REVIEWED

By mneal at 6:17 am, Jun 15, 2017

#### LINKS

Review your project  
results through

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Have a Question?

Ask  
The  
Expert

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[www.testamericainc.com](http://www.testamericainc.com)

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### Job ID: 500-129011-1

#### Laboratory: TestAmerica Chicago

##### Narrative

##### Job Narrative 500-129011-1

##### Comments

No additional comments.

##### Receipt

The samples were received on 6/2/2017 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

##### GC/MS VOA

Method(s) 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-3A (500-129011-2) and MW-4R (500-129011-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### GC VOA

Method(s) WI-GRO: Surrogate recovery for the following sample was outside control limits: MW-5A (500-129011-5) and MW-10 (500-129011-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

##### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Detection Summary**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-1A****Lab Sample ID: 500-129011-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	1.5		1.0	0.39	ug/L	1		8260B	Total/NA
Benzene	3.5		0.50	0.15	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-3A****Lab Sample ID: 500-129011-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1900		10	3.6	ug/L	10		8260B	Total/NA
1,2-Dibromoethane (EDB)	45		10	3.9	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	530		10	2.5	ug/L	10		8260B	Total/NA
Ethylbenzene	1400		5.0	1.8	ug/L	10		8260B	Total/NA
Naphthalene	450		10	3.4	ug/L	10		8260B	Total/NA
Benzene - DL	3200		50	15	ug/L	100		8260B	Total/NA
Toluene - DL	12000		50	15	ug/L	100		8260B	Total/NA
Xylenes, Total - DL	8100		100	22	ug/L	100		8260B	Total/NA

**Client Sample ID: MW-4R****Lab Sample ID: 500-129011-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	360		2.0	0.67	ug/L	2		8260B	Total/NA
1,2,4-Trimethylbenzene - DL	1400		20	7.2	ug/L	20		8260B	Total/NA
1,3,5-Trimethylbenzene - DL	370		20	5.1	ug/L	20		8260B	Total/NA
Benzene - DL	780		10	2.9	ug/L	20		8260B	Total/NA
Ethylbenzene - DL	1400		10	3.7	ug/L	20		8260B	Total/NA
Toluene - DL	2300		10	3.0	ug/L	20		8260B	Total/NA
Xylenes, Total - DL	4800		20	4.4	ug/L	20		8260B	Total/NA

**Client Sample ID: MW-4A****Lab Sample ID: 500-129011-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	39		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	28		0.50	0.30	ug/L	1		WDNR	Total/NA
Ethylbenzene	34		0.50	0.37	ug/L	1		WDNR	Total/NA
Naphthalene	44		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	8.6		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	39		1.5	0.58	ug/L	1		WDNR	Total/NA

**Client Sample ID: MW-5A****Lab Sample ID: 500-129011-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	200		0.50	0.30	ug/L	1		WDNR	Total/NA
1,3,5-Trimethylbenzene	83		0.50	0.30	ug/L	1		WDNR	Total/NA
Benzene	16		0.50	0.36	ug/L	1		WDNR	Total/NA
Ethylbenzene	150		0.50	0.37	ug/L	1		WDNR	Total/NA
Methyl tert-butyl ether	300		0.50	0.24	ug/L	1		WDNR	Total/NA
Naphthalene	96		5.0	2.4	ug/L	1		WDNR	Total/NA
Toluene	42		0.50	0.33	ug/L	1		WDNR	Total/NA
Xylenes, Total	440		1.5	0.58	ug/L	1		WDNR	Total/NA

**Client Sample ID: MW-7****Lab Sample ID: 500-129011-6**

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-7 (Continued)****Lab Sample ID: 500-129011-6**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.65		0.50	0.15	ug/L	1		8260B	Total/NA

**Client Sample ID: MW-10****Lab Sample ID: 500-129011-7**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	770		5.0	3.0	ug/L	10		WDNR	Total/NA
1,3,5-Trimethylbenzene	190		5.0	3.0	ug/L	10		WDNR	Total/NA
Benzene	87		5.0	3.6	ug/L	10		WDNR	Total/NA
Ethylbenzene	740		5.0	3.7	ug/L	10		WDNR	Total/NA
Methyl tert-butyl ether	2100		5.0	2.4	ug/L	10		WDNR	Total/NA
Naphthalene	360		50	24	ug/L	10		WDNR	Total/NA
Toluene	890		5.0	3.3	ug/L	10		WDNR	Total/NA
Xylenes, Total	1900		15	5.8	ug/L	10		WDNR	Total/NA

**Client Sample ID: MW-East****Lab Sample ID: 500-129011-8**

No Detections.

**Client Sample ID: MW-West****Lab Sample ID: 500-129011-9**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.69		0.50	0.24	ug/L	1		WDNR	Total/NA

**Client Sample ID: CMW-1****Lab Sample ID: 500-129011-10**

No Detections.

**Client Sample ID: Trip Blank****Lab Sample ID: 500-129011-11**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-129011-1	MW-1A	Water	06/01/17 12:45	06/02/17 09:55
500-129011-2	MW-3A	Water	06/01/17 14:00	06/02/17 09:55
500-129011-3	MW-4R	Water	06/01/17 13:30	06/02/17 09:55
500-129011-4	MW-4A	Water	06/01/17 13:15	06/02/17 09:55
500-129011-5	MW-5A	Water	06/01/17 13:00	06/02/17 09:55
500-129011-6	MW-7	Water	06/01/17 10:45	06/02/17 09:55
500-129011-7	MW-10	Water	06/01/17 13:45	06/02/17 09:55
500-129011-8	MW-East	Water	06/01/17 11:45	06/02/17 09:55
500-129011-9	MW-West	Water	06/01/17 12:15	06/02/17 09:55
500-129011-10	CMW-1	Water	06/01/17 11:15	06/02/17 09:55
500-129011-11	Trip Blank	Water	06/01/17 00:00	06/02/17 09:55

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TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-1A**  
Date Collected: 06/01/17 12:45  
Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-1**  
Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/09/17 14:06	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/09/17 14:06	1
<b>1,2-Dichloroethane</b>	<b>1.5</b>		1.0	0.39	ug/L			06/09/17 14:06	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/09/17 14:06	1
<b>Benzene</b>	<b>3.5</b>		0.50	0.15	ug/L			06/09/17 14:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/09/17 14:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/09/17 14:06	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/09/17 14:06	1
Toluene	<0.15		0.50	0.15	ug/L			06/09/17 14:06	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/09/17 14:06	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	102		75 - 126					06/09/17 14:06	1
4-Bromofluorobenzene (Surr)	109		72 - 124					06/09/17 14:06	1
Dibromofluoromethane	91		75 - 120					06/09/17 14:06	1
Toluene-d8 (Surr)	102		75 - 120					06/09/17 14:06	1

**Client Sample ID: MW-3A****Lab Sample ID: 500-129011-2**

Date Collected: 06/01/17 14:00  
Date Received: 06/02/17 09:55

Matrix: Water

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,2,4-Trimethylbenzene</b>	<b>1900</b>		10	3.6	ug/L			06/09/17 14:33	10
<b>1,2-Dibromoethane (EDB)</b>	<b>45</b>		10	3.9	ug/L			06/09/17 14:33	10
1,2-Dichloroethane	<3.9		10	3.9	ug/L			06/09/17 14:33	10
<b>1,3,5-Trimethylbenzene</b>	<b>530</b>		10	2.5	ug/L			06/09/17 14:33	10
<b>Ethylbenzene</b>	<b>1400</b>		5.0	1.8	ug/L			06/09/17 14:33	10
Methyl tert-butyl ether	<3.9		10	3.9	ug/L			06/09/17 14:33	10
<b>Naphthalene</b>	<b>450</b>		10	3.4	ug/L			06/09/17 14:33	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	100		75 - 126					06/09/17 14:33	10
4-Bromofluorobenzene (Surr)	109		72 - 124					06/09/17 14:33	10
Dibromofluoromethane	89		75 - 120					06/09/17 14:33	10
Toluene-d8 (Surr)	102		75 - 120					06/09/17 14:33	10

**Method: 8260B - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzene</b>	<b>3200</b>		50	15	ug/L			06/09/17 15:00	100
<b>Toluene</b>	<b>12000</b>		50	15	ug/L			06/09/17 15:00	100
<b>Xylenes, Total</b>	<b>8100</b>		100	22	ug/L			06/09/17 15:00	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	106		75 - 126					06/09/17 15:00	100
4-Bromofluorobenzene (Surr)	110		72 - 124					06/09/17 15:00	100
Dibromofluoromethane	92		75 - 120					06/09/17 15:00	100
Toluene-d8 (Surr)	100		75 - 120					06/09/17 15:00	100

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-4R**  
**Date Collected: 06/01/17 13:30**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-3**  
**Matrix: Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<0.77		2.0	0.77	ug/L			06/09/17 15:54	2
1,2-Dichloroethane	<0.78		2.0	0.78	ug/L			06/09/17 15:54	2
Methyl tert-butyl ether	<0.79		2.0	0.79	ug/L			06/09/17 15:54	2
<b>Naphthalene</b>	<b>360</b>		2.0	0.67	ug/L			06/09/17 15:54	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		06/09/17 15:54	2
4-Bromofluorobenzene (Surr)	108		72 - 124		06/09/17 15:54	2
Dibromofluoromethane	91		75 - 120		06/09/17 15:54	2
Toluene-d8 (Surr)	104		75 - 120		06/09/17 15:54	2

**Method: 8260B - Volatile Organic Compounds (GC/MS) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	1400		20	7.2	ug/L			06/09/17 16:21	20
1,3,5-Trimethylbenzene	370		20	5.1	ug/L			06/09/17 16:21	20
Benzene	780		10	2.9	ug/L			06/09/17 16:21	20
Ethylbenzene	1400		10	3.7	ug/L			06/09/17 16:21	20
Toluene	2300		10	3.0	ug/L			06/09/17 16:21	20
Xylenes, Total	4800		20	4.4	ug/L			06/09/17 16:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		75 - 126		06/09/17 16:21	20
4-Bromofluorobenzene (Surr)	108		72 - 124		06/09/17 16:21	20
Dibromofluoromethane	92		75 - 120		06/09/17 16:21	20
Toluene-d8 (Surr)	101		75 - 120		06/09/17 16:21	20

**Client Sample ID: MW-4A****Lab Sample ID: 500-129011-4****Matrix: Water****Date Received: 06/02/17 09:55****Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	39		0.50	0.30	ug/L			06/05/17 23:28	1
1,3,5-Trimethylbenzene	28		0.50	0.30	ug/L			06/05/17 23:28	1
Benzene	<0.36		0.50	0.36	ug/L			06/05/17 23:28	1
Ethylbenzene	34		0.50	0.37	ug/L			06/05/17 23:28	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			06/05/17 23:28	1
Naphthalene	44		5.0	2.4	ug/L			06/05/17 23:28	1
Toluene	8.6		0.50	0.33	ug/L			06/05/17 23:28	1
Xylenes, Total	39		1.5	0.58	ug/L			06/05/17 23:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
a,a,a-Trifluorotoluene	89		80 - 120		06/05/17 23:28	1

**Client Sample ID: MW-5A****Lab Sample ID: 500-129011-5****Matrix: Water****Date Received: 06/02/17 09:55****Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	200		0.50	0.30	ug/L			06/06/17 00:21	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-5A**  
**Date Collected: 06/01/17 13:00**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-5**  
**Matrix: Water**

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	83		0.50	0.30	ug/L			06/06/17 00:21	1
Benzene	16		0.50	0.36	ug/L			06/06/17 00:21	1
Ethylbenzene	150		0.50	0.37	ug/L			06/06/17 00:21	1
Methyl tert-butyl ether	300		0.50	0.24	ug/L			06/06/17 00:21	1
Naphthalene	96		5.0	2.4	ug/L			06/06/17 00:21	1
Toluene	42		0.50	0.33	ug/L			06/06/17 00:21	1
Xylenes, Total	440		1.5	0.58	ug/L			06/06/17 00:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	263	X	80 - 120					06/06/17 00:21	1

**Client Sample ID: MW-7****Lab Sample ID: 500-129011-6**

**Date Collected: 06/01/17 10:45**  
**Date Received: 06/02/17 09:55**

**Matrix: Water****Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/09/17 16:48	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/09/17 16:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/09/17 16:48	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/09/17 16:48	1
<b>Benzene</b>	<b>0.65</b>		0.50	0.15	ug/L			06/09/17 16:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/09/17 16:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/09/17 16:48	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/09/17 16:48	1
Toluene	<0.15		0.50	0.15	ug/L			06/09/17 16:48	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/09/17 16:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	104		75 - 126					06/09/17 16:48	1
4-Bromofluorobenzene (Surr)	112		72 - 124					06/09/17 16:48	1
Dibromofluoromethane	93		75 - 120					06/09/17 16:48	1
Toluene-d8 (Surr)	99		75 - 120					06/09/17 16:48	1

**Client Sample ID: MW-10****Lab Sample ID: 500-129011-7**

**Date Collected: 06/01/17 13:45**  
**Date Received: 06/02/17 09:55**

**Matrix: Water****Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	770		5.0	3.0	ug/L			06/06/17 01:15	10
1,3,5-Trimethylbenzene	190		5.0	3.0	ug/L			06/06/17 01:15	10
Benzene	87		5.0	3.6	ug/L			06/06/17 01:15	10
Ethylbenzene	740		5.0	3.7	ug/L			06/06/17 01:15	10
Methyl tert-butyl ether	2100		5.0	2.4	ug/L			06/06/17 01:15	10
Naphthalene	360		50	24	ug/L			06/06/17 01:15	10
Toluene	890		5.0	3.3	ug/L			06/06/17 01:15	10
Xylenes, Total	1900		15	5.8	ug/L			06/06/17 01:15	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	171	X	80 - 120					06/06/17 01:15	10

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-East**  
Date Collected: 06/01/17 11:45  
Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-8**  
Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 21:14	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 21:14	1
Benzene	<0.36		0.50	0.36	ug/L			06/05/17 21:14	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			06/05/17 21:14	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			06/05/17 21:14	1
Naphthalene	<2.4		5.0	2.4	ug/L			06/05/17 21:14	1
Toluene	<0.33		0.50	0.33	ug/L			06/05/17 21:14	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			06/05/17 21:14	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	90			80 - 120				06/05/17 21:14	1

**Client Sample ID: MW-West**  
Date Collected: 06/01/17 12:15  
Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-9**  
Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 21:41	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 21:41	1
Benzene	<0.36		0.50	0.36	ug/L			06/05/17 21:41	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			06/05/17 21:41	1
<b>Methyl tert-butyl ether</b>	<b>0.69</b>		0.50	0.24	ug/L			06/05/17 21:41	1
Naphthalene	<2.4		5.0	2.4	ug/L			06/05/17 21:41	1
Toluene	<0.33		0.50	0.33	ug/L			06/05/17 21:41	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			06/05/17 21:41	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	99			80 - 120				06/05/17 21:41	1

**Client Sample ID: CMW-1**  
Date Collected: 06/01/17 11:15  
Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-10**  
Matrix: Water

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 22:08	1
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 22:08	1
Benzene	<0.36		0.50	0.36	ug/L			06/05/17 22:08	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			06/05/17 22:08	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			06/05/17 22:08	1
Naphthalene	<2.4		5.0	2.4	ug/L			06/05/17 22:08	1
Toluene	<0.33		0.50	0.33	ug/L			06/05/17 22:08	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			06/05/17 22:08	1
<b>Surrogate</b>							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	93			80 - 120				06/05/17 22:08	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: Trip Blank**  
**Date Collected: 06/01/17 00:00**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-11**  
**Matrix: Water**

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/09/17 12:45	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/09/17 12:45	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/09/17 12:45	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/09/17 12:45	1
Benzene	<0.15		0.50	0.15	ug/L			06/09/17 12:45	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/09/17 12:45	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/09/17 12:45	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/09/17 12:45	1
Toluene	<0.15		0.50	0.15	ug/L			06/09/17 12:45	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/09/17 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		06/09/17 12:45	1
4-Bromofluorobenzene (Surr)	107		72 - 124		06/09/17 12:45	1
Dibromofluoromethane	93		75 - 120		06/09/17 12:45	1
Toluene-d8 (Surr)	100		75 - 120		06/09/17 12:45	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

### Glossary

#### Abbreviation

**These commonly used abbreviations may or may not be present in this report.**

□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

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## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### GC/MS VOA

#### Analysis Batch: 388751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129011-1	MW-1A	Total/NA	Water	8260B	5
500-129011-2	MW-3A	Total/NA	Water	8260B	6
500-129011-2 - DL	MW-3A	Total/NA	Water	8260B	7
500-129011-3	MW-4R	Total/NA	Water	8260B	8
500-129011-3 - DL	MW-4R	Total/NA	Water	8260B	9
500-129011-6	MW-7	Total/NA	Water	8260B	10
500-129011-11	Trip Blank	Total/NA	Water	8260B	11
MB 500-388751/6	Method Blank	Total/NA	Water	8260B	12
LCS 500-388751/4	Lab Control Sample	Total/NA	Water	8260B	13

### GC VOA

#### Analysis Batch: 435222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-129011-4	MW-4A	Total/NA	Water	WDNR	12
500-129011-5	MW-5A	Total/NA	Water	WDNR	13
500-129011-7	MW-10	Total/NA	Water	WDNR	14
500-129011-8	MW-East	Total/NA	Water	WDNR	15
500-129011-9	MW-West	Total/NA	Water	WDNR	
500-129011-10	CMW-1	Total/NA	Water	WDNR	
MB 490-435222/5	Method Blank	Total/NA	Water	WDNR	
LCS 490-435222/2	Lab Control Sample	Total/NA	Water	WDNR	
LCSD 490-435222/3	Lab Control Sample Dup	Total/NA	Water	WDNR	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-129011-1	MW-1A	102	109	91	102
500-129011-2	MW-3A	100	109	89	102
500-129011-2 - DL	MW-3A	106	110	92	100
500-129011-3	MW-4R	100	108	91	104
500-129011-3 - DL	MW-4R	105	108	92	101
500-129011-6	MW-7	104	112	93	99
500-129011-11	Trip Blank	104	107	93	100
LCS 500-388751/4	Lab Control Sample	103	111	94	98
MB 500-388751/6	Method Blank	107	110	93	100

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Bromofluoromethane

TOL = Toluene-d8 (Surr)

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TFT (80-120)	
500-129011-4	MW-4A	89	
500-129011-5	MW-5A	263 X	
500-129011-7	MW-10	171 X	
500-129011-8	MW-East	90	
500-129011-9	MW-West	99	
500-129011-10	CMW-1	93	
LCS 490-435222/2	Lab Control Sample	94	
LCSD 490-435222/3	Lab Control Sample Dup	96	
MB 490-435222/5	Method Blank	87	

**Surrogate Legend**

TFT = a,a,a-Trifluorotoluene

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-388751/6

Matrix: Water

Analysis Batch: 388751

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/L			06/09/17 11:50	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			06/09/17 11:50	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			06/09/17 11:50	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			06/09/17 11:50	1
Benzene	<0.15		0.50	0.15	ug/L			06/09/17 11:50	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			06/09/17 11:50	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			06/09/17 11:50	1
Naphthalene	<0.34		1.0	0.34	ug/L			06/09/17 11:50	1
Toluene	<0.15		0.50	0.15	ug/L			06/09/17 11:50	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			06/09/17 11:50	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
1,2-Dichloroethane-d4 (Surr)	107		75 - 126				06/09/17 11:50	1
4-Bromofluorobenzene (Surr)	110		72 - 124				06/09/17 11:50	1
Dibromofluoromethane	93		75 - 120				06/09/17 11:50	1
Toluene-d8 (Surr)	100		75 - 120				06/09/17 11:50	1

Lab Sample ID: LCS 500-388751/4

Matrix: Water

Analysis Batch: 388751

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spikes	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
1,2,4-Trimethylbenzene	50.0	52.5		ug/L		105	70 - 123
1,2-Dibromoethane (EDB)	50.0	44.4		ug/L		89	70 - 125
1,2-Dichloroethane	50.0	46.4		ug/L		93	68 - 127
1,3,5-Trimethylbenzene	50.0	52.1		ug/L		104	70 - 123
Benzene	50.0	45.4		ug/L		91	70 - 120
Ethylbenzene	50.0	47.8		ug/L		96	70 - 120
Methyl tert-butyl ether	50.0	45.3		ug/L		91	70 - 120
Naphthalene	50.0	45.0		ug/L		90	59 - 130
Toluene	50.0	46.9		ug/L		94	70 - 125
Xylenes, Total	100	96.6		ug/L		97	70 - 125

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
	Result	Qualifier			
1,2-Dichloroethane-d4 (Surr)	103		75 - 126		
4-Bromofluorobenzene (Surr)	111		72 - 124		
Dibromofluoromethane	94		75 - 120		
Toluene-d8 (Surr)	98		75 - 120		

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-435222/5

Matrix: Water

Analysis Batch: 435222

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 19:54	1

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: MB 490-435222/5

Matrix: Water

Analysis Batch: 435222

 Client Sample ID: Method Blank  
 Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3,5-Trimethylbenzene	<0.30		0.50	0.30	ug/L			06/05/17 19:54	1
Benzene	<0.36		0.50	0.36	ug/L			06/05/17 19:54	1
Ethylbenzene	<0.37		0.50	0.37	ug/L			06/05/17 19:54	1
Methyl tert-butyl ether	<0.24		0.50	0.24	ug/L			06/05/17 19:54	1
Naphthalene	<2.4		5.0	2.4	ug/L			06/05/17 19:54	1
Toluene	<0.33		0.50	0.33	ug/L			06/05/17 19:54	1
Xylenes, Total	<0.58		1.5	0.58	ug/L			06/05/17 19:54	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene	87		80 - 120		06/05/17 19:54	1

Lab Sample ID: LCS 490-435222/2

Matrix: Water

Analysis Batch: 435222

 Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA

Analyte	Spike		LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
	Added	Result							
1,2,4-Trimethylbenzene	100	90.5	ug/L			91	91	60 - 131	
1,3,5-Trimethylbenzene	100	90.6	ug/L			91	91	70 - 130	
Benzene	100	91.1	ug/L			91	91	69 - 129	
Ethylbenzene	100	91.8	ug/L			92	92	70 - 130	
Methyl tert-butyl ether	100	96.9	ug/L			97	97	57 - 138	
Naphthalene	100	107	ug/L			107	107	69 - 133	
Toluene	100	90.7	ug/L			91	91	66 - 127	
Xylenes, Total	300	269	ug/L			90	90		

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene	94		80 - 120			

Lab Sample ID: LCSD 490-435222/3

Matrix: Water

Analysis Batch: 435222

 Client Sample ID: Lab Control Sample Dup  
 Prep Type: Total/NA

Analyte	Spike		LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
	Added	Result								
1,2,4-Trimethylbenzene	100	90.6	ug/L			91	91	60 - 131	0	43
1,3,5-Trimethylbenzene	100	90.8	ug/L			91	91	70 - 130	0	20
Benzene	100	91.4	ug/L			91	91	69 - 129	0	33
Ethylbenzene	100	92.8	ug/L			93	93	70 - 130	1	35
Methyl tert-butyl ether	100	97.4	ug/L			97	97	57 - 138	1	40
Naphthalene	100	110	ug/L			110	110	69 - 133	3	48
Toluene	100	91.3	ug/L			91	91	66 - 127	1	34
Xylenes, Total	300	269	ug/L			90	90		0	

Surrogate	LCSD		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene	96		80 - 120			

TestAmerica Chicago

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-1A**  
**Date Collected: 06/01/17 12:45**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	388751	06/09/17 14:06	PJH	TAL CHI

**Client Sample ID: MW-3A**  
**Date Collected: 06/01/17 14:00**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	388751	06/09/17 14:33	PJH	TAL CHI
Total/NA	Analysis	8260B	DL	100	388751	06/09/17 15:00	PJH	TAL CHI

**Client Sample ID: MW-4R**  
**Date Collected: 06/01/17 13:30**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	388751	06/09/17 15:54	PJH	TAL CHI
Total/NA	Analysis	8260B	DL	20	388751	06/09/17 16:21	PJH	TAL CHI

**Client Sample ID: MW-4A**  
**Date Collected: 06/01/17 13:15**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	435222	06/05/17 23:28	AK1	TAL NSH

**Client Sample ID: MW-5A**  
**Date Collected: 06/01/17 13:00**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	435222	06/06/17 00:21	AK1	TAL NSH

**Client Sample ID: MW-7**  
**Date Collected: 06/01/17 10:45**  
**Date Received: 06/02/17 09:55**

**Lab Sample ID: 500-129011-6**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	388751	06/09/17 16:48	PJH	TAL CHI

**Lab Chronicle**

Client: American Engineering Testing Inc.  
 Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

**Client Sample ID: MW-10**

Date Collected: 06/01/17 13:45  
 Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-7**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		10	435222	06/06/17 01:15	AK1	TAL NSH

**Client Sample ID: MW-East**

Date Collected: 06/01/17 11:45  
 Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-8**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	435222	06/05/17 21:14	AK1	TAL NSH

**Client Sample ID: MW-West**

Date Collected: 06/01/17 12:15  
 Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-9**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	435222	06/05/17 21:41	AK1	TAL NSH

**Client Sample ID: CMW-1**

Date Collected: 06/01/17 11:15  
 Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-10**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	WDNR		1	435222	06/05/17 22:08	AK1	TAL NSH

**Client Sample ID: Trip Blank**

Date Collected: 06/01/17 00:00  
 Date Received: 06/02/17 09:55

**Lab Sample ID: 500-129011-11**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	388751	06/09/17 12:45	PJH	TAL CHI

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Chicago

## Accreditation/Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: Dairi Concepts - 03-05510

TestAmerica Job ID: 500-129011-1

### Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-17

### Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-17

**TestAmerica**

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60466  
Phone: 708.534.5200 Fax: 708.534.5201

500-129011 COC

(optional)	
Report To	Contact:
Company:	Address:
Address:	Address:
Phone:	Fax:
E-Mail:	

(optional)	
Bill To	Contact:
Company:	Address:
Address:	Address:
Phone:	Fax:
PO#/Reference#	

**Chain of Custody Record**

Lab Job #: 500-129011

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler: 31b

- Preservative Key
1. HCl, Cool to 4°
  2. H<sub>2</sub>SO<sub>4</sub>, Cool to 4°
  3. HNO<sub>3</sub>, Cool to 4°
  4. NaOH, Cool to 4°
  5. NaOH/Zn, Cool to 4°
  6. NaHSO<sub>4</sub>
  7. Cool to 4°
  8. None
  9. Other

Client ID	Project Name	Project Location/State	Sampler	Client Project #	Lab Project #	Lab PM	Preservative	Parameter		# of Containers	Matrix	Comments
								Date	Time			
1	AET	Dari Concepts	Michael K. Neal	03-05510		Sande F.		1	1			
2	MW-1A	G-1-17		16:45	3	W	X					
3	MW-3A			14:00	3	W	X					
4	MW-4R			13:30	3	W	X					
5	MW-4A			13:15	3	W	X					
6	MW-5A			13:00	3	W	X					
7	MW-7			10:45	3	W	X					
8	MW-10			13:45	3	W	X					
9	MW-East			11:45	3	W	X					
10	MW-West			12:15	3	W	X					
11	CMy-1			11:15	3	W	X					
	Turnaround Time Required (Business Days)				1	W	X					

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Requested Due Date \_\_\_\_\_

Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Shipped
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered

Matrix Key

WW - Wastewater  
W - Water  
S - Soil  
SL - Sludge  
MS - Miscellaneous  
OL - Oil  
A - Air

SE - Sediment  
SO - Soil  
L - Leachate  
WI - Wipe  
DW - Drinking Water  
O - Other

Client Comments  
*PECFA project.*

Lab Comments:

ORIGIN ID:EAUA (715) 861-5045  
 MICHAEL NEAL  
 1837 COUNTY HIGHWAY OO  
 CHIPPEWA FALLS, WI 54729  
 UNITED STATES US

SHIP DATE: 01JUN17  
 ACTWGT: 18.00 LB  
 CAD: 104342606/NET3850

BILL THIRD PARTY

TO SAMPLE RECEIPT  
 TEST AMERICA  
 2417 BOND STREET



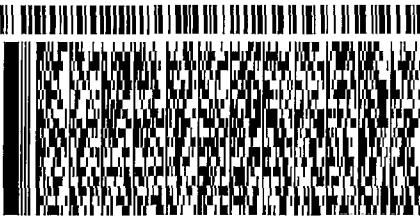
UNIVERSITY PARK IL 60484

(708) 534-5200  
 INV:  
 PO:

500-129011 Waybill

REF:

DEPT:

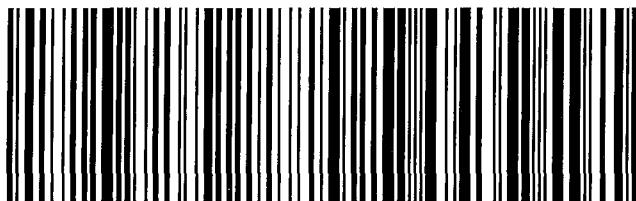


FRI - 02 JUN 3:00P

STANDARD OVERNIGHT

TRK#  
 0201 7792 8178 7780

NA JOTA

60484  
 IL-US ORD**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](http://fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



THE LEADER IN ENVIRONMENTAL TESTING  
Nashville, TN



500-129011 Chain of Custody

## COOLER RECEIPT FORM

Cooler Received/Opened On 06-03-2017 @0940

Time Samples Removed From Cooler \_\_\_\_\_ Time Samples Placed In Storage \_\_\_\_\_ (2 Hour Window)

1. Tracking # 4710 (last 4 digits, FedEx) Courier: FEDEXIR Gun ID 31470366 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_2. Temperature of rep. sample or temp blank when opened: 20 Degrees Celsius3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES...NO...NA4. Were custody seals on outside of cooler? Front YES...NO...NA

If yes, how many and where: \_\_\_\_\_

5. Were the seals intact, signed, and dated correctly? YES...NO...NA6. Were custody papers inside cooler? ASH YES...NO...NAI certify that I opened the cooler and answered questions 1-6 (initial) ASH7. Were custody seals on containers: YES NO and Intact YES...NO...NAWere these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None10. Did all containers arrive in good condition (unbroken)? YES...NO...NA11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA12. Did all container labels and tags agree with custody papers? YES...NO...NA13a. Were VOA vials received? YES...NO...NAb. Was there any observable headspace present in any VOA vial? YES...NO...NA14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # ESI certify that I unloaded the cooler and answered questions 7-14 (initial) ES15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NAb. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA16. Was residual chlorine present? YES...NO...NAI certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) ES17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA18. Did you sign the custody papers in the appropriate place? YES...NO...NA19. Were correct containers used for the analysis requested? YES...NO...NA20. Was sufficient amount of sample sent in each container? YES...NO...NAI certify that I entered this project into LIMS and answered questions 17-20 (initial) ESI certify that I attached a label with the unique LIMS number to each container (initial) ES

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...# \_\_\_\_\_

## Chain of Custody Record

**500-129011** TestAmerica  
THE FASTER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)		Sampler:	Lab P.M.:			
Client Contact: Shipping/Receiving	Phone:	Fredrick, Sandie J	500-58514.1			
Company: TestAmerica Laboratories, Inc	E-Mail: sandie.fredrick@testamericainc.com	State of Origin: Wisconsin	Page: 1 of 1			
Address: 2960 Foster Creighton Drive, Nashville State, Zip: TN 37204		Accreditations Required (See note): State Program - Wisconsin				
Due Date Requested: 6/12/2017		TAT Requested (days):				
		Analysis Requested				
		Field Filtered Sample (Yes or No)				
		Perform MS/MSD (Yes or No)				
		WI_GRO/5030B PVOC+NAP				
Sample Identification - Client ID (Lab ID)						
	Sample Date	Sample Time	Sample Type (C=comp, G=grab)			
			Matrix (Water, Sewer, Oil/water, Other)			
			BT = Issue A/Fair			
			Preservation Code			
				Total Number of containers		
				Special Instructions>Note:		
MW-4A (500-129011-4)	6/1/17	13:15	Water	X	3	A - HCl
MW-5A (500-129011-5)	6/1/17	13:00	Water	X	3	B - NaOH
MW-10 (500-129011-7)	6/1/17	13:45	Water	X	3	C - Zn Acetate
MW-East (500-129011-8)	6/1/17	11:45	Water	X	3	D - Nitric Acid
MW-West (500-129011-9)	6/1/17	12:15	Water	X	3	E - NaHSO4
CMW-1 (500-129011-10)	6/1/17	11:15	Water	X	3	F - MeOH
						G - Anchior.
						H - Ascorbic Acid
						I - ce
						J - DI Water.
						K - EDTA
						L - EDA
						Z - other (specify)
						Other:
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.				Preservation Codes:		
Possible Hazard Identification				A fee may be assessed if samples are retained longer than 1 month)		
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		
Deliverable Requested: I, II, III, IV. Other (specify)				Special Instructions/QC Requirements:		
Empty Kit Relinquished by:				Method of Shipment:		
Relinquished by: <i>Sandie J</i>				Date/Time:	6-3-17 9:10	Company
Relinquished by: <i>Sandie J</i>				Date/Time:	6-3-17 9:10	Received by:
Relinquished by: <i>Sandie J</i>				Date/Time:	6-3-17 9:10	Company
Custody Seals Intact: Δ Yes Δ No				Custody Seal No.: 210		

AET Project No. 03-05510

Note: Since laboratory accreditation are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for a analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica.

**Possible Hazard Identification**

Inconclusive

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**

Return To Client       Disposal/Recycle       Archive/For

Month

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/stratix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

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6/14/2017

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-129011-1

**Login Number:** 129011**List Source:** TestAmerica Chicago**List Number:** 1**Creator:** Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	False	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-129011-1

**Login Number:** 129011**List Number:** 2**Creator:** Stewart, Eric S**List Source:** TestAmerica Nashville**List Creation:** 06/03/17 11:22 AM

Question	Answer	Comment	
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A		1
The cooler's custody seal, if present, is intact.	True		2
Sample custody seals, if present, are intact.	True		3
The cooler or samples do not appear to have been compromised or tampered with.	True		4
Samples were received on ice.	True		5
Cooler Temperature is acceptable.	True		6
Cooler Temperature is recorded.	True		7
COC is present.	True		8
COC is filled out in ink and legible.	True		9
COC is filled out with all pertinent information.	True		10
Is the Field Sampler's name present on COC?	True		11
There are no discrepancies between the containers received and the COC.	True		12
Samples are received within Holding Time (excluding tests with immediate HTs)	True		13
Sample containers have legible labels.	True		14
Containers are not broken or leaking.	True		15
Sample collection date/times are provided.	True		
Appropriate sample containers are used.	True		
Sample bottles are completely filled.	True		
Sample Preservation Verified.	N/A		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True		
Multiphasic samples are not present.	True		
Samples do not require splitting or compositing.	True		
Residual Chlorine Checked.	N/A		

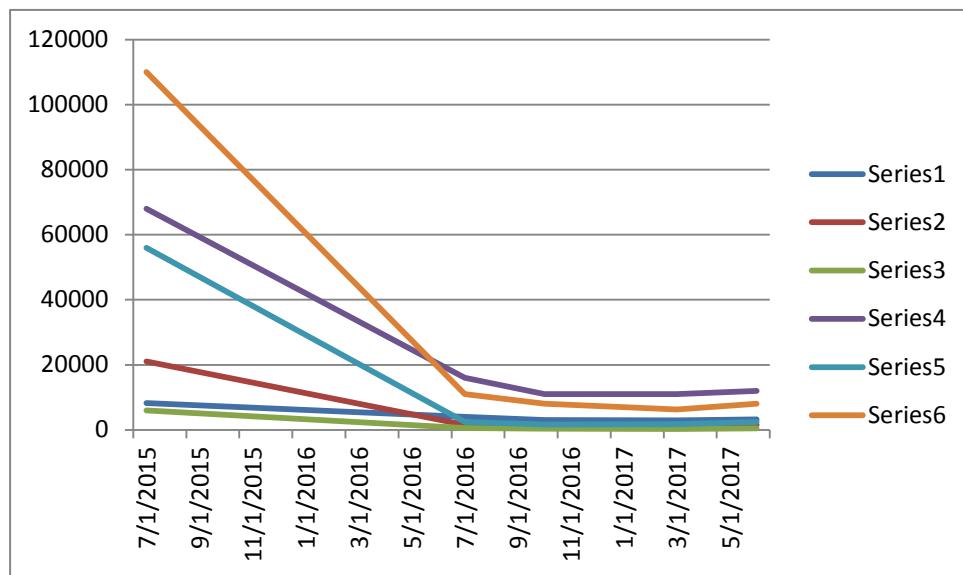
# Appendix E

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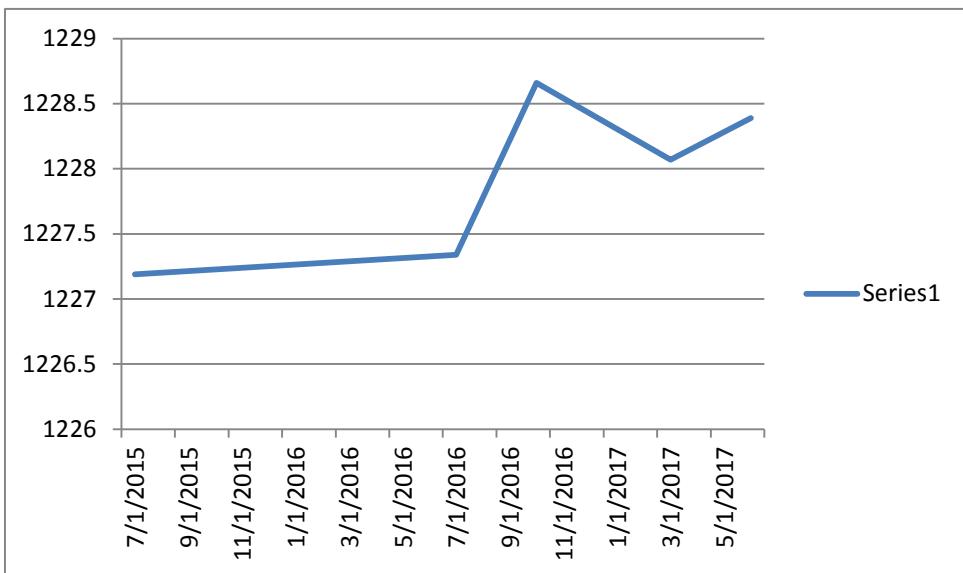
Concentration verses Time Graphs

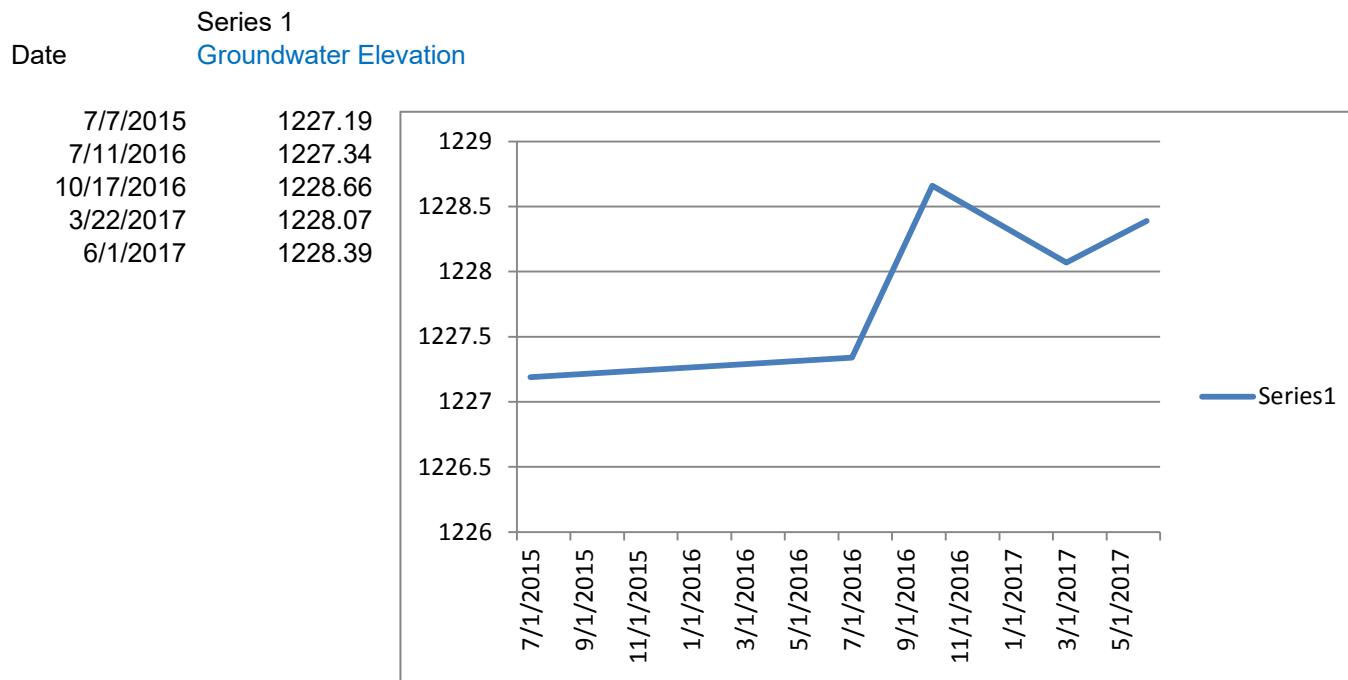
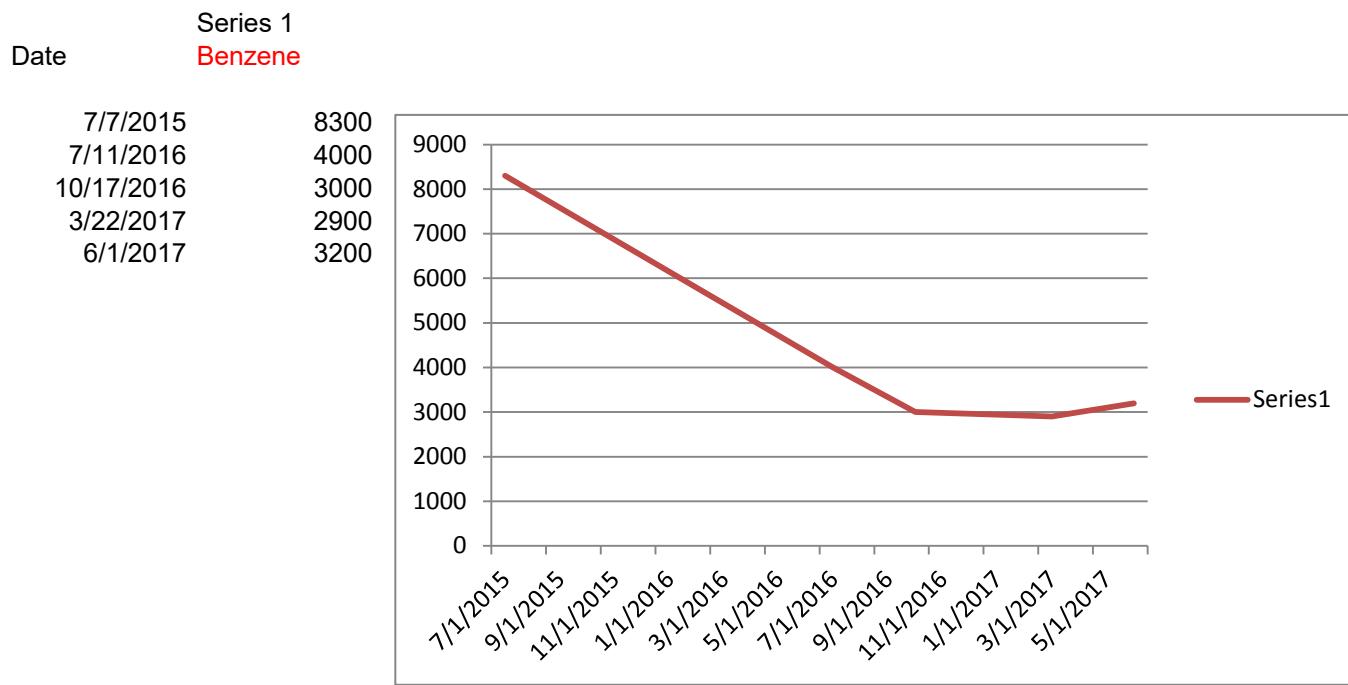
## DairiConcepts, Chili, WI - MW-3A - Post Remediation

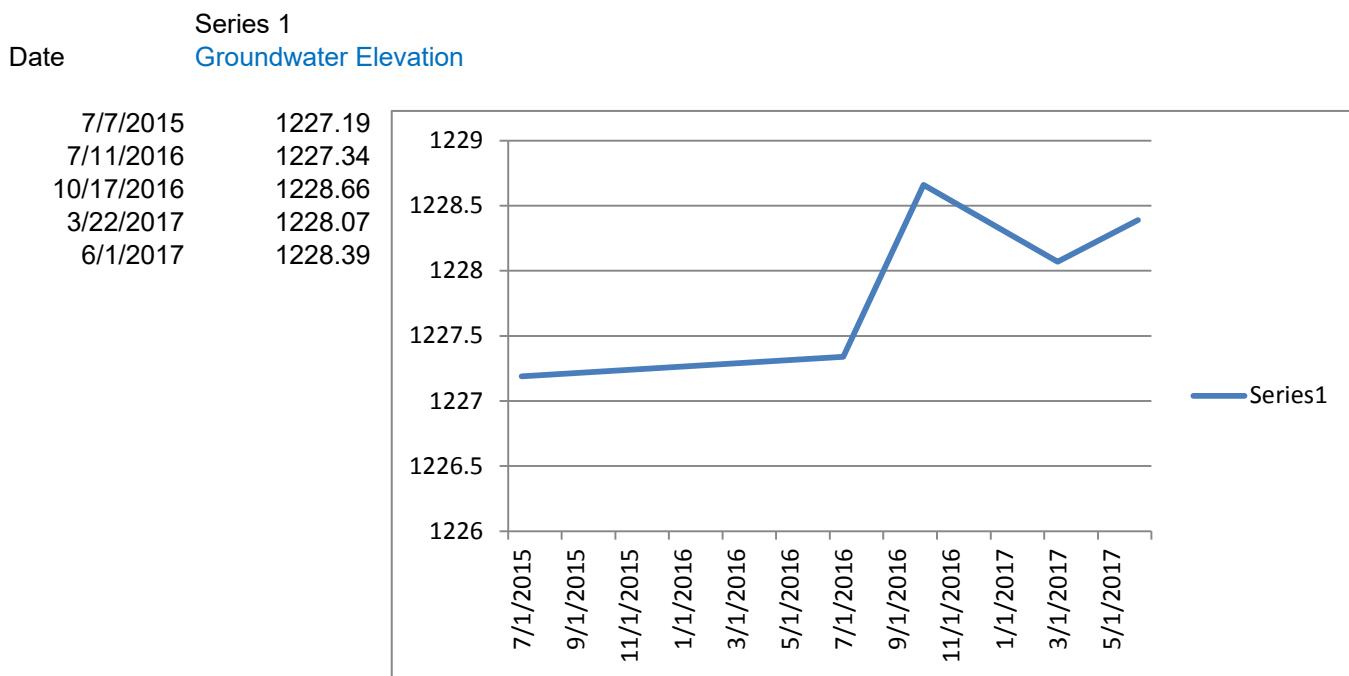
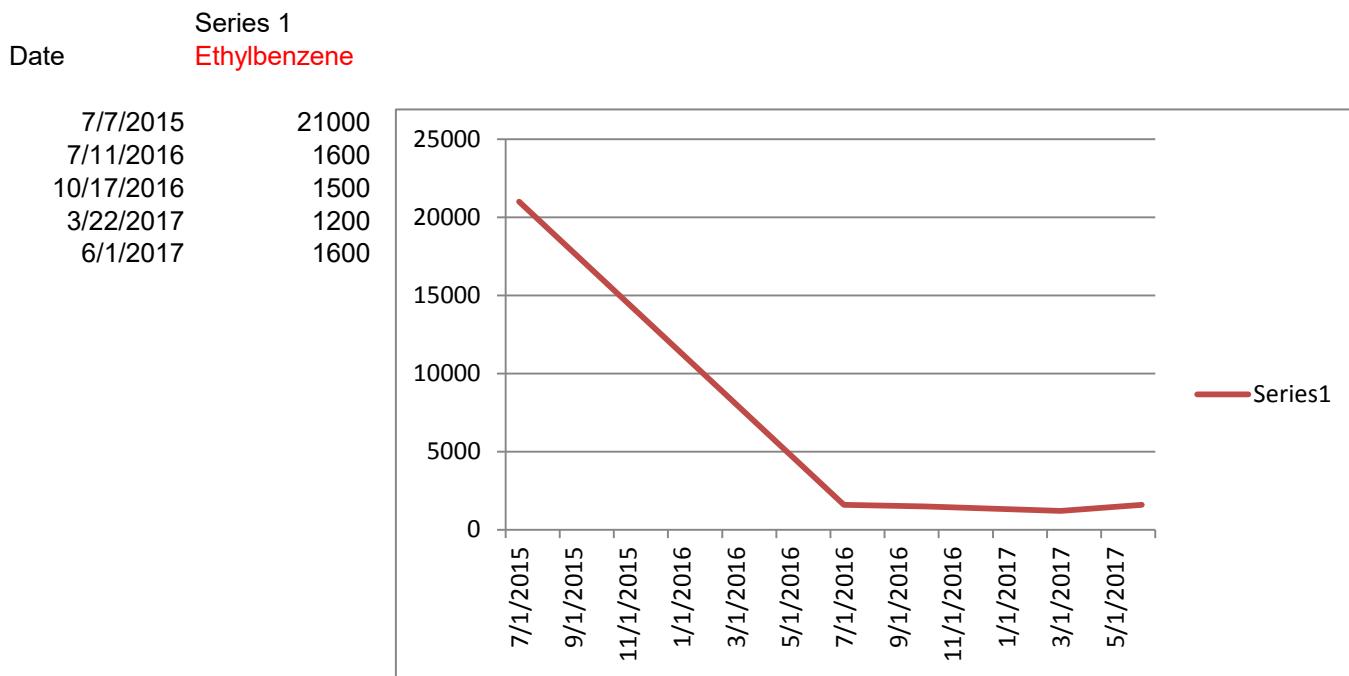
Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 3 Naphthalene	Series 4 Toluene	Series 5 Total TMBs	Series 6 Total Xylenes
7/7/2015	8300	21000	6000	68000	56000	110000
7/11/2016	4000	1600	530	16000	2470	11000
10/17/2016	3000	1500	400	11000	1670	8100
3/22/2017	2900	1200	260	11000	1790	6300
6/1/2017	3200	1600	450	12000	2430	8100

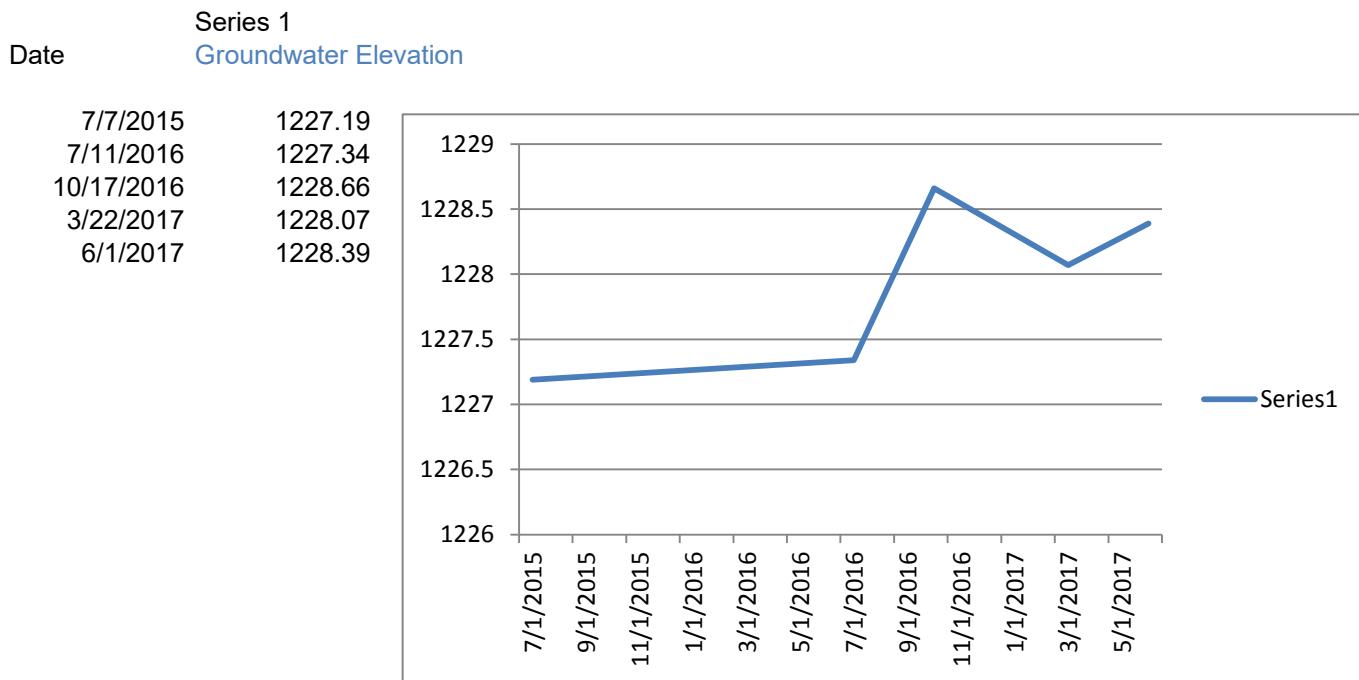
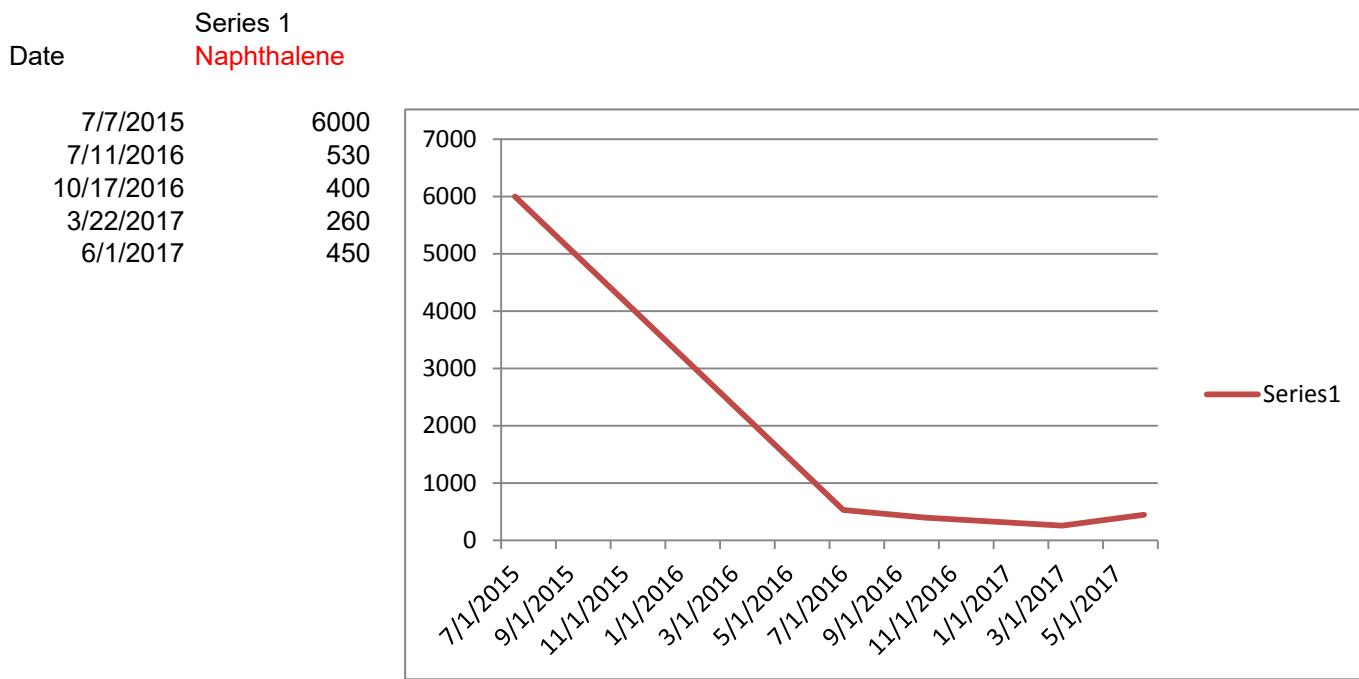


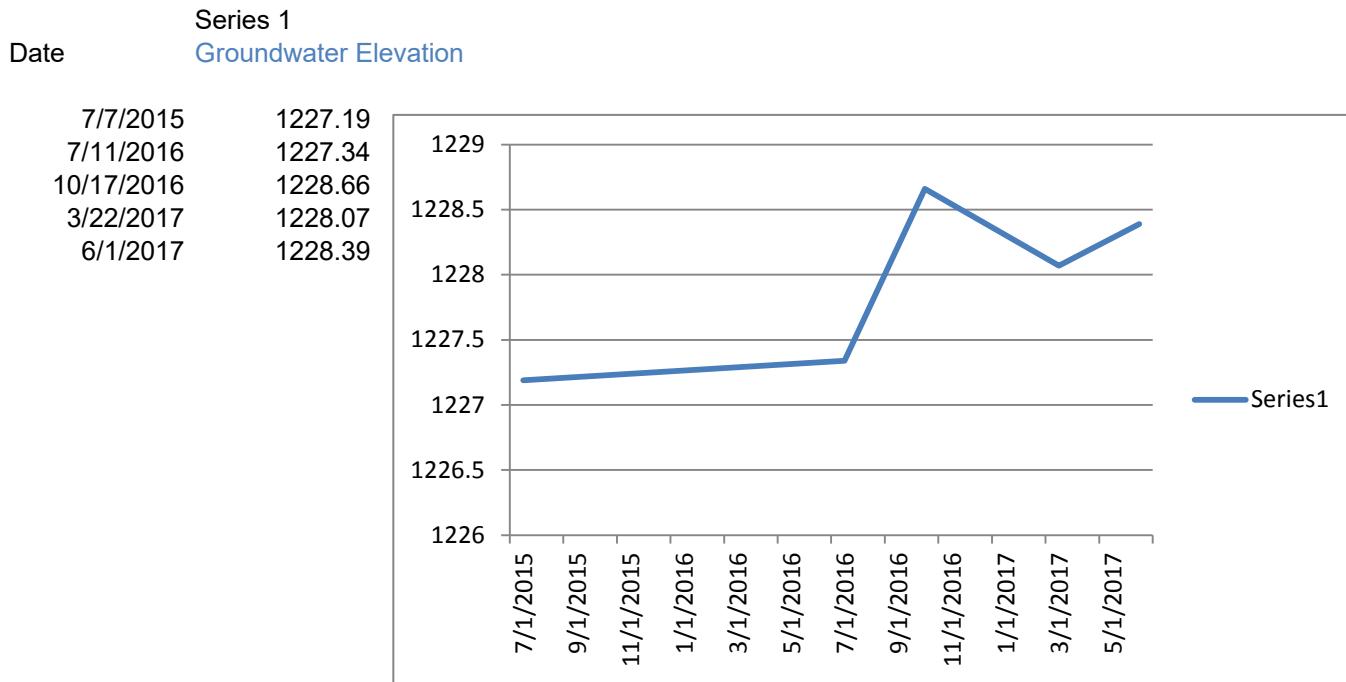
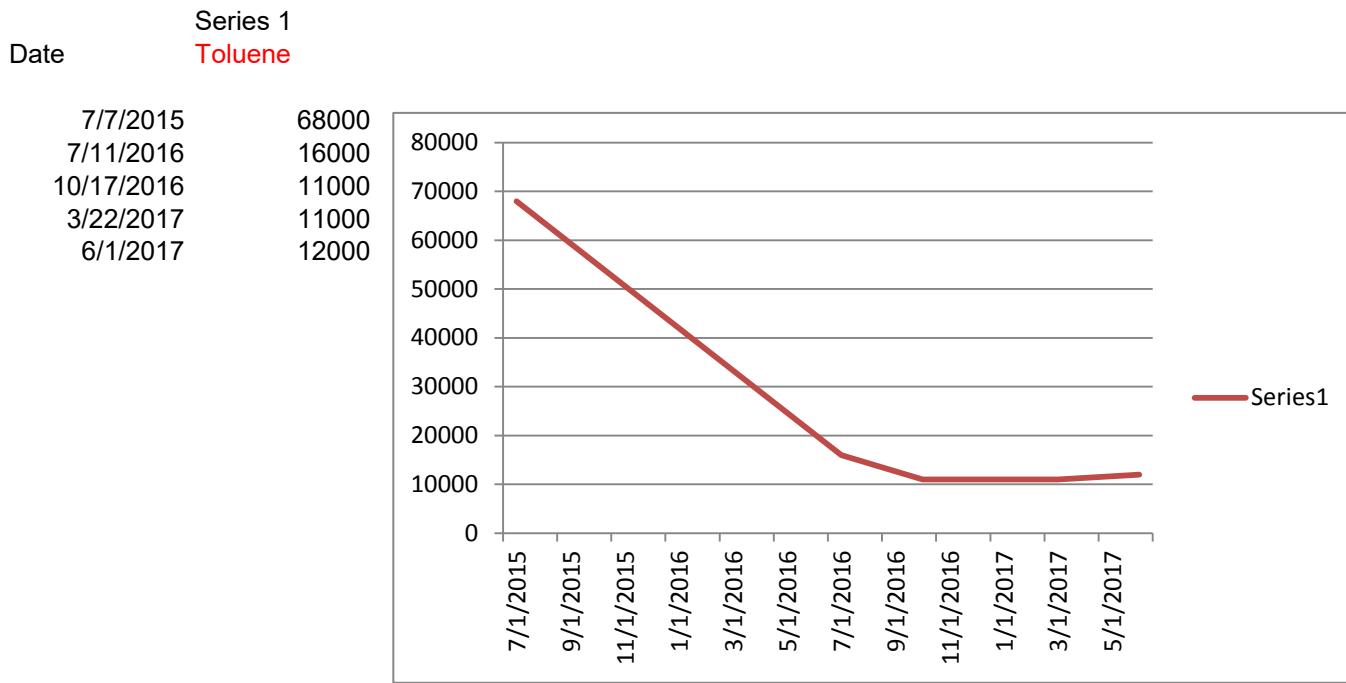
Date	Series 1 Groundwater Elevation
7/7/2015	1227.19
7/11/2016	1227.34
10/17/2016	1228.66
3/22/2017	1228.07
6/1/2017	1228.39

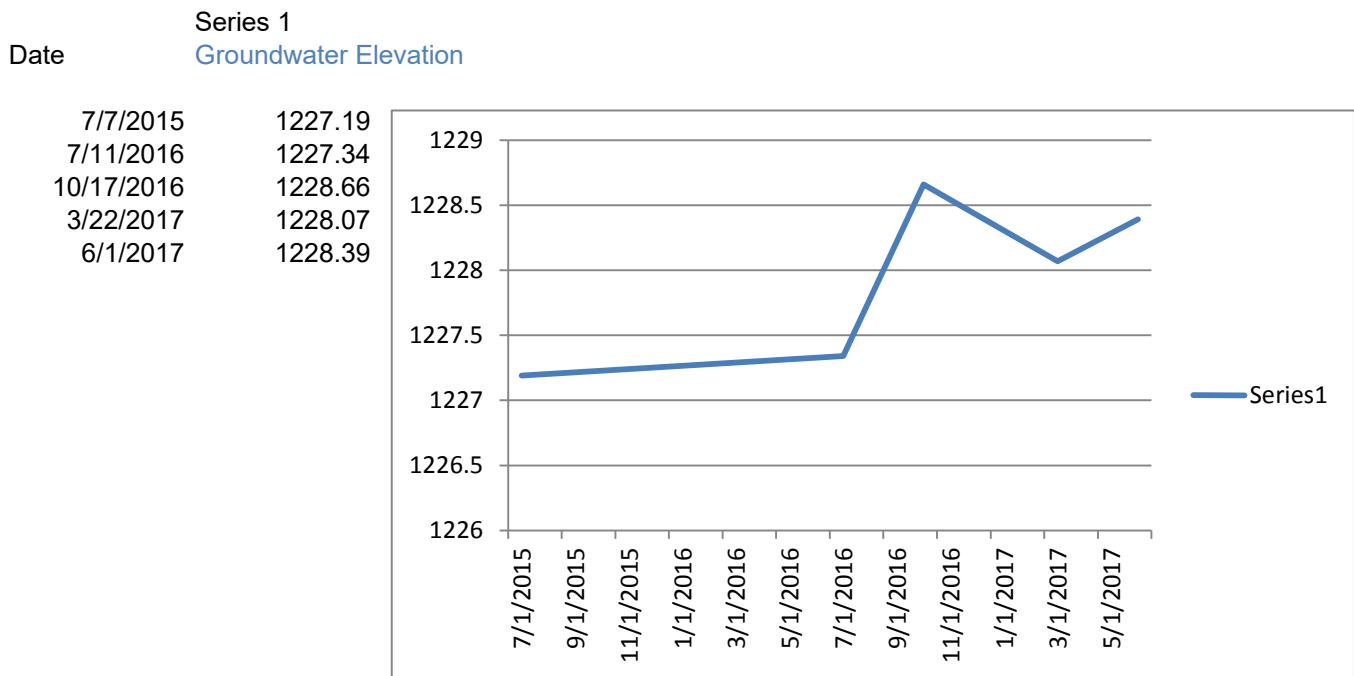
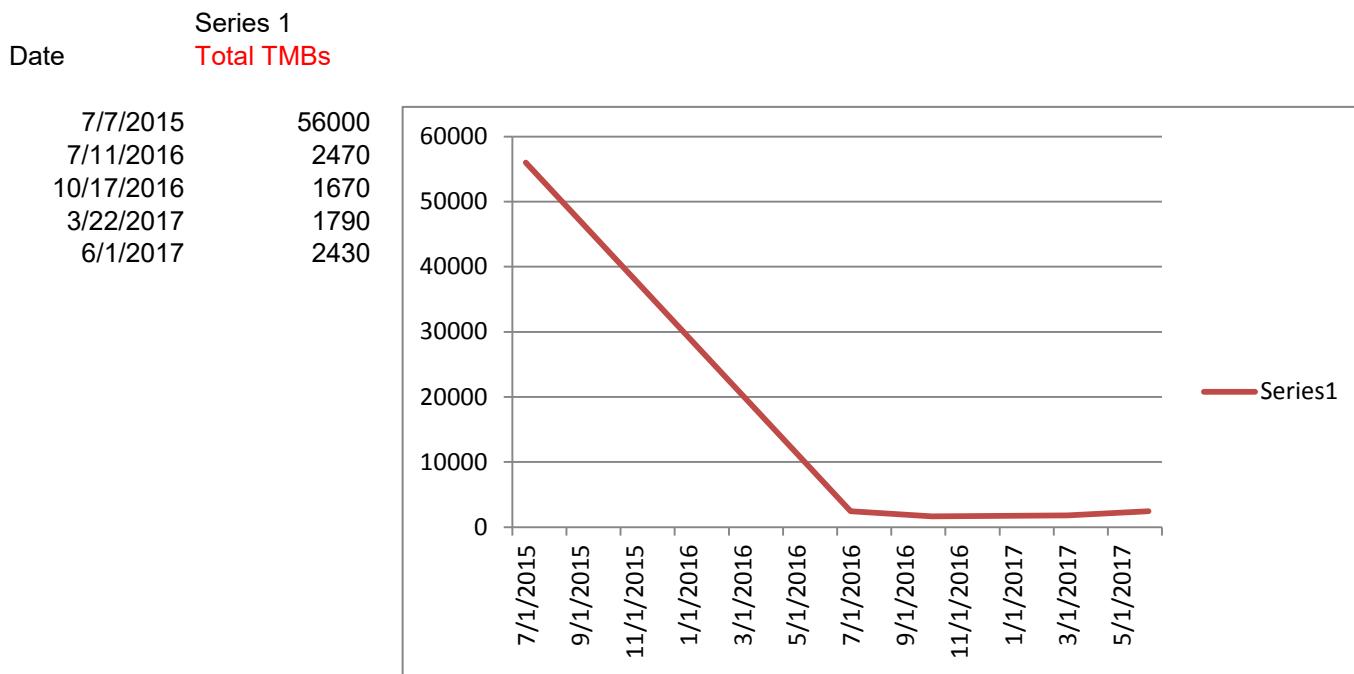


**DairiConcepts, Chili, WI - MW-3A - Post Remediation**

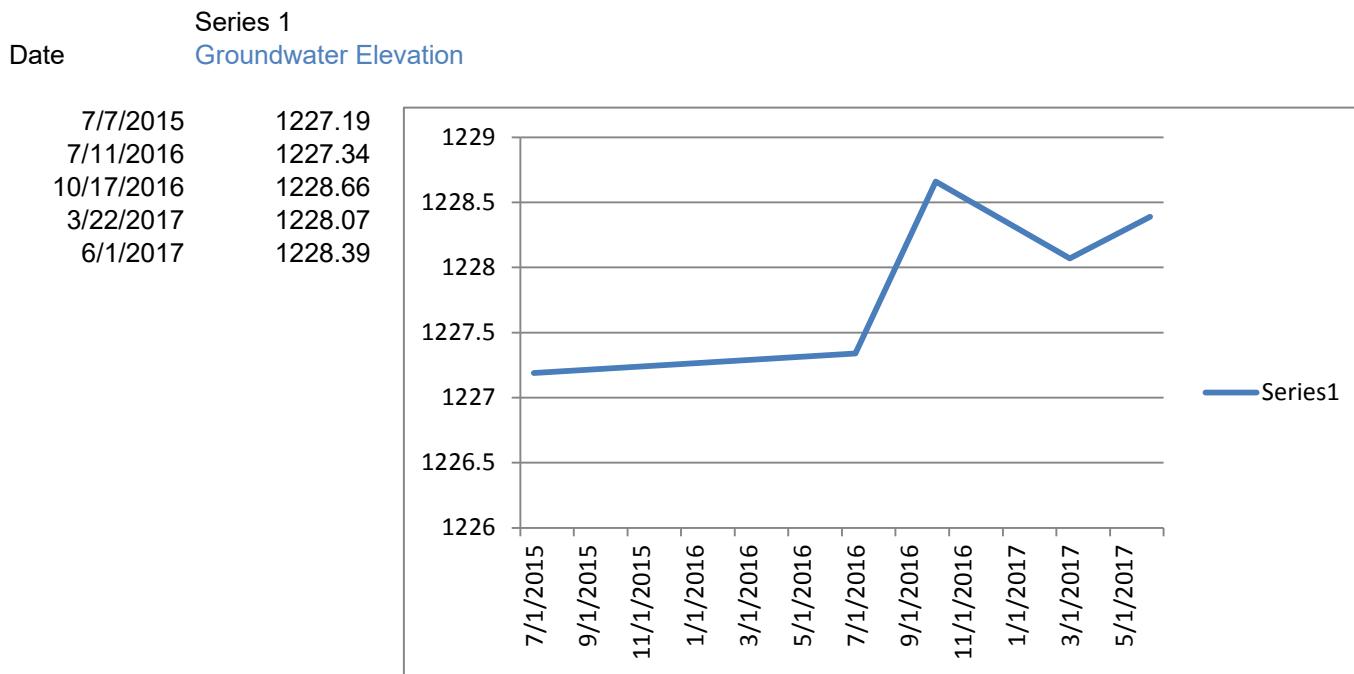
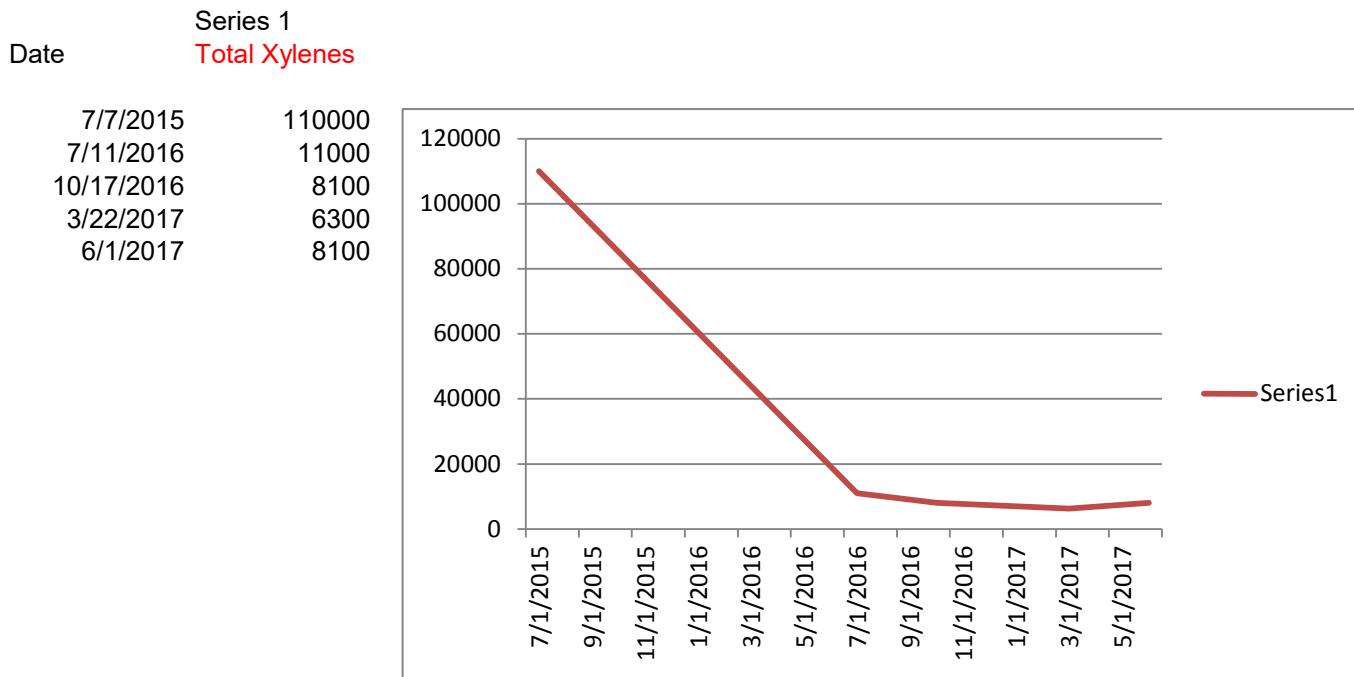
**DairiConcepts, Chili, WI - MW-3A - Post Remediation**

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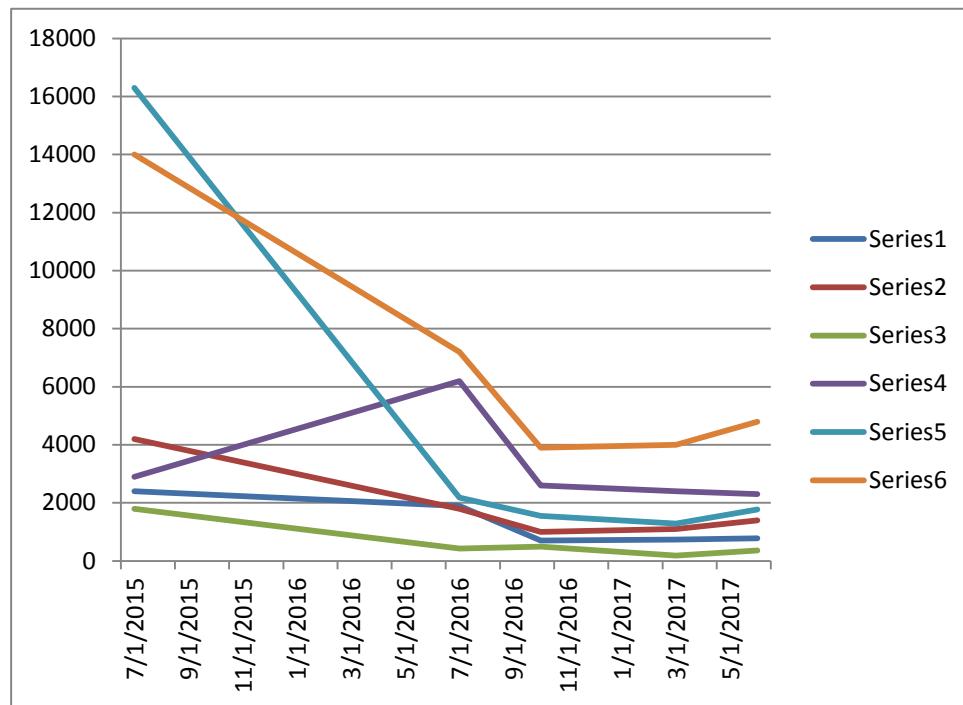
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## DairiConcepts, Chili, WI - MW-3A - Post Remediation

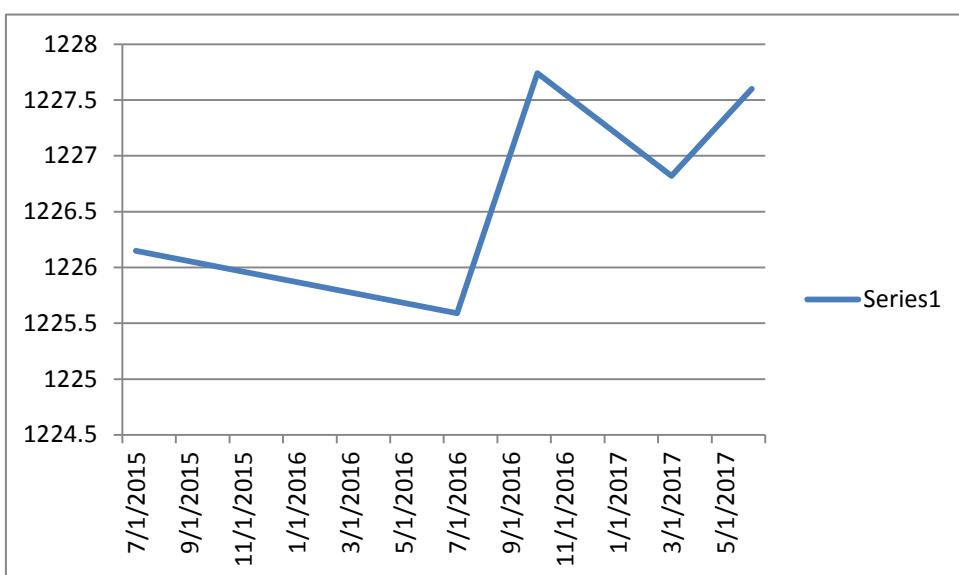


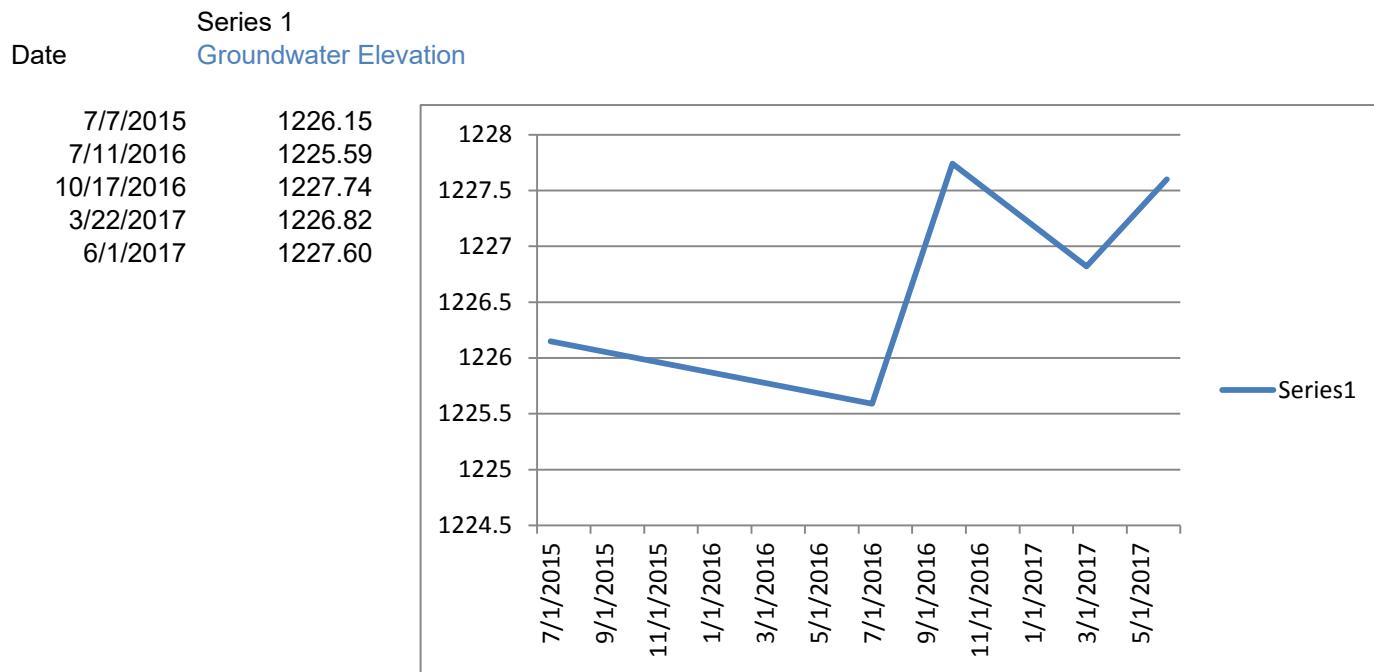
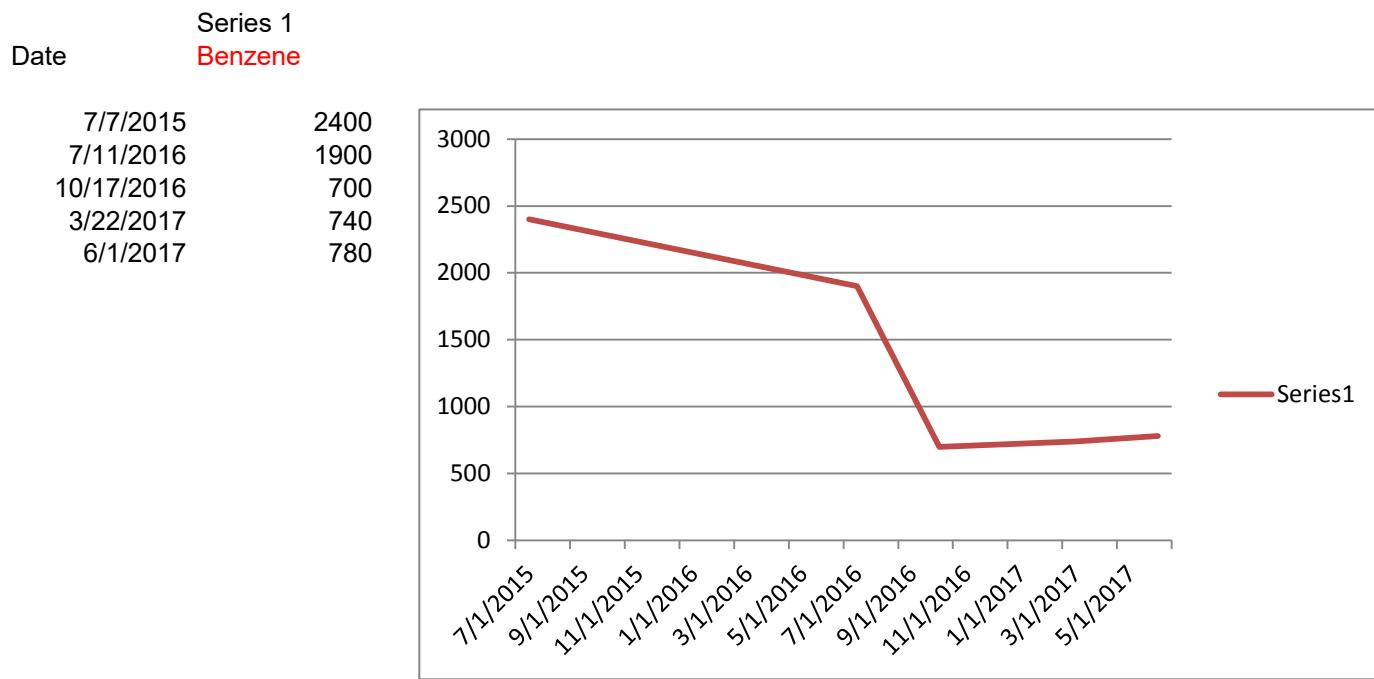
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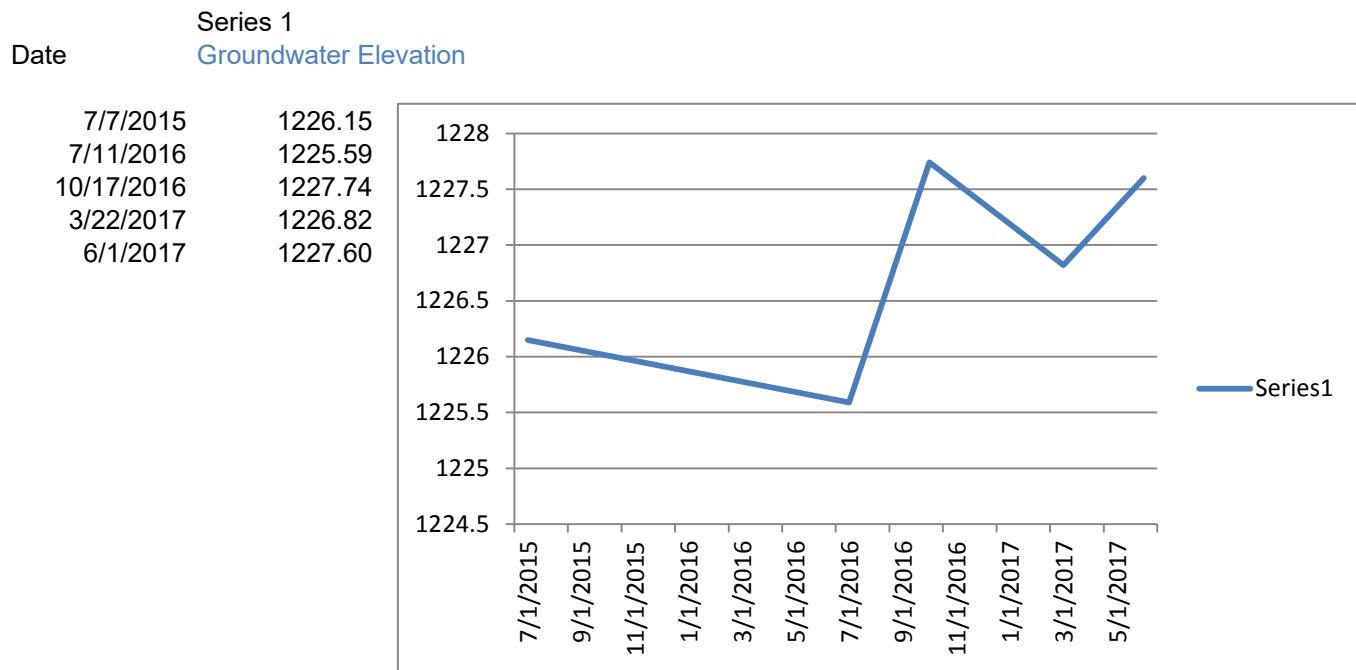
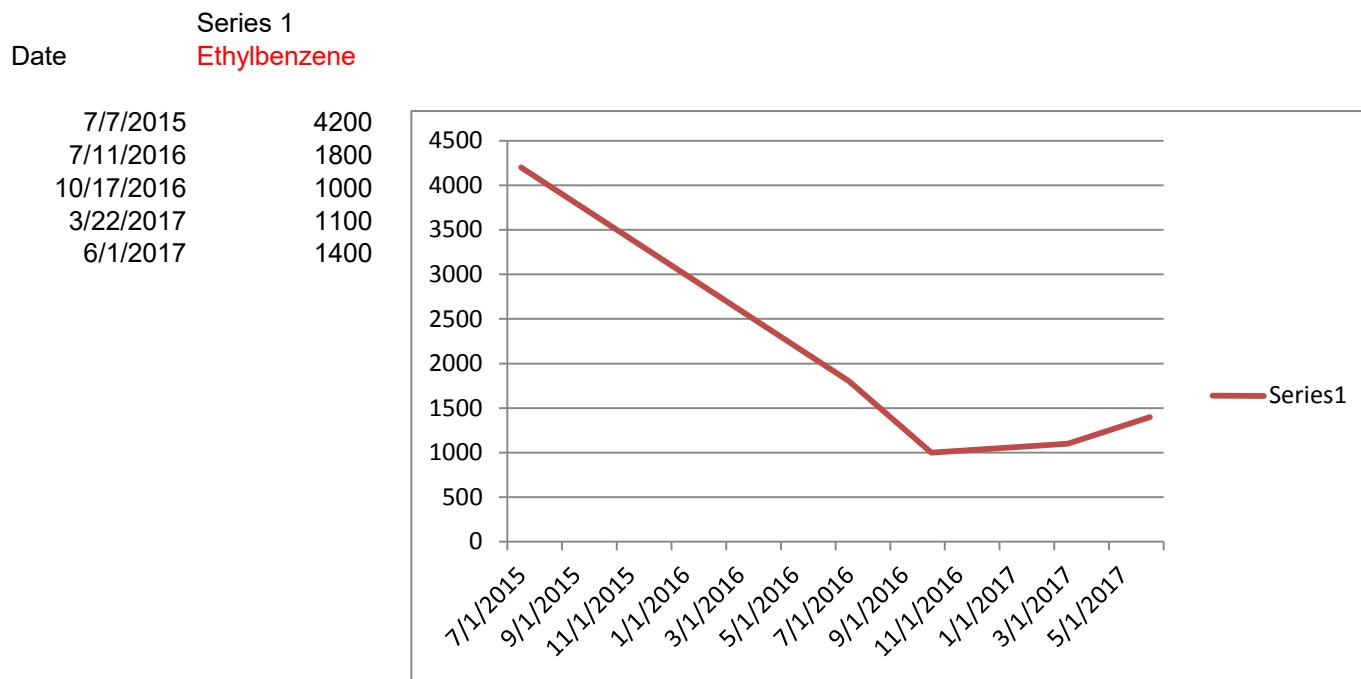
Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 2 Naphthalene	Series 4 Toluene	Series 5 Total TMBs	Series 6 Total Xylenes
7/7/2015	2400	4200	1800	2900	16300	14000
7/11/2016	1900	1800	430	6200	2180	7200
10/17/2016	700	1000	500	2600	1550	3900
3/22/2017	740	1100	190	2400	1290	4000
6/1/2017	780	1400	360	2300	1770	4800

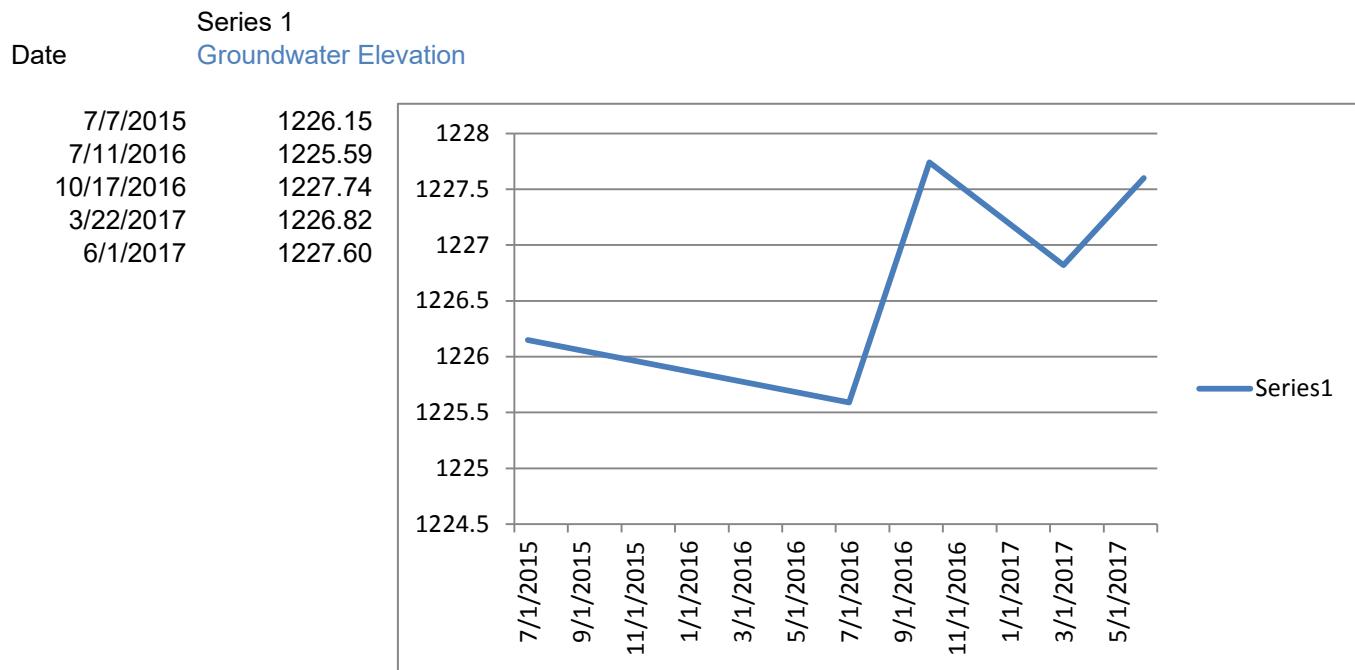
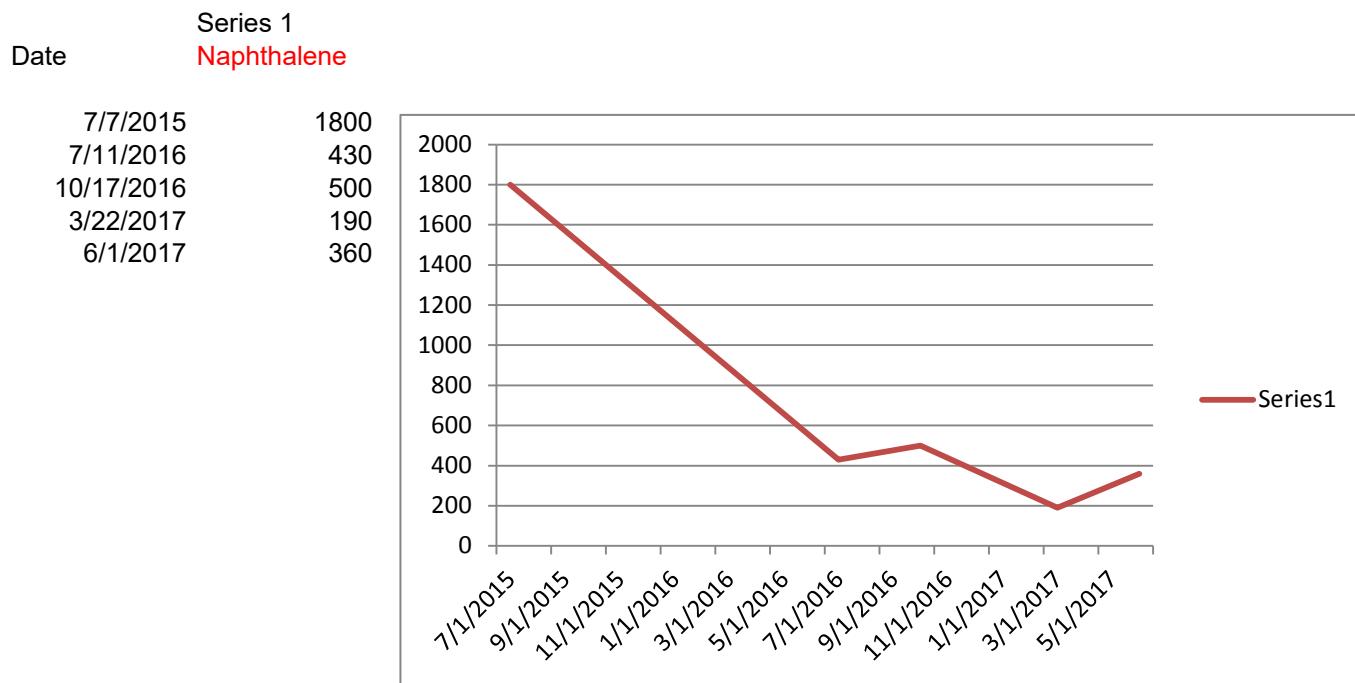


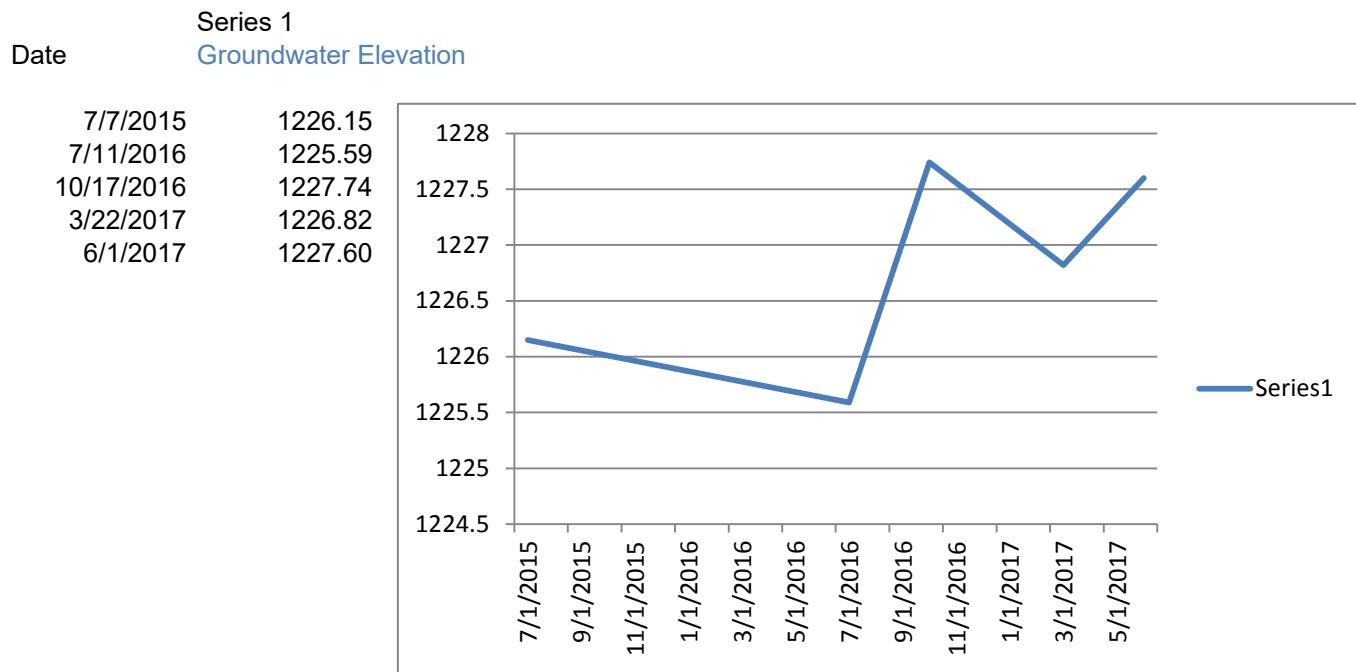
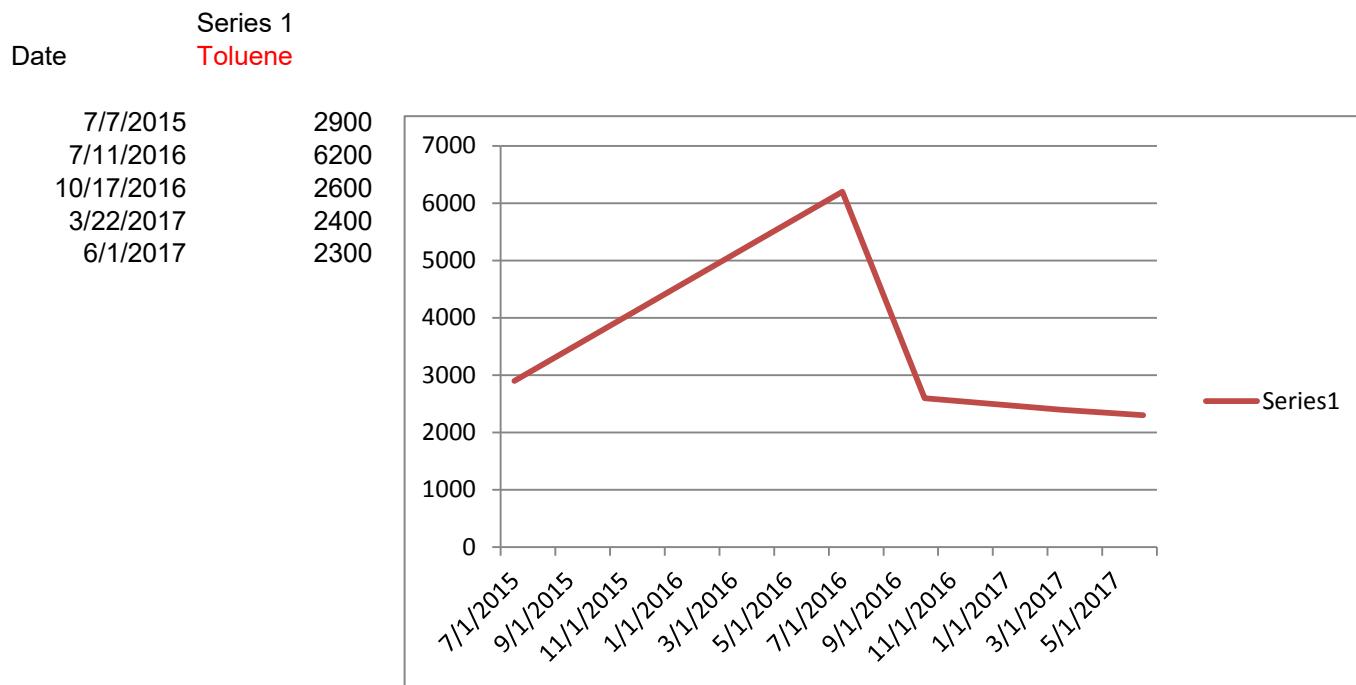
Date	Series 1 Groundwater Elevation
7/7/2015	1226.15
7/11/2016	1225.59
10/17/2016	1227.74
3/22/2017	1226.82
6/1/2017	1227.60

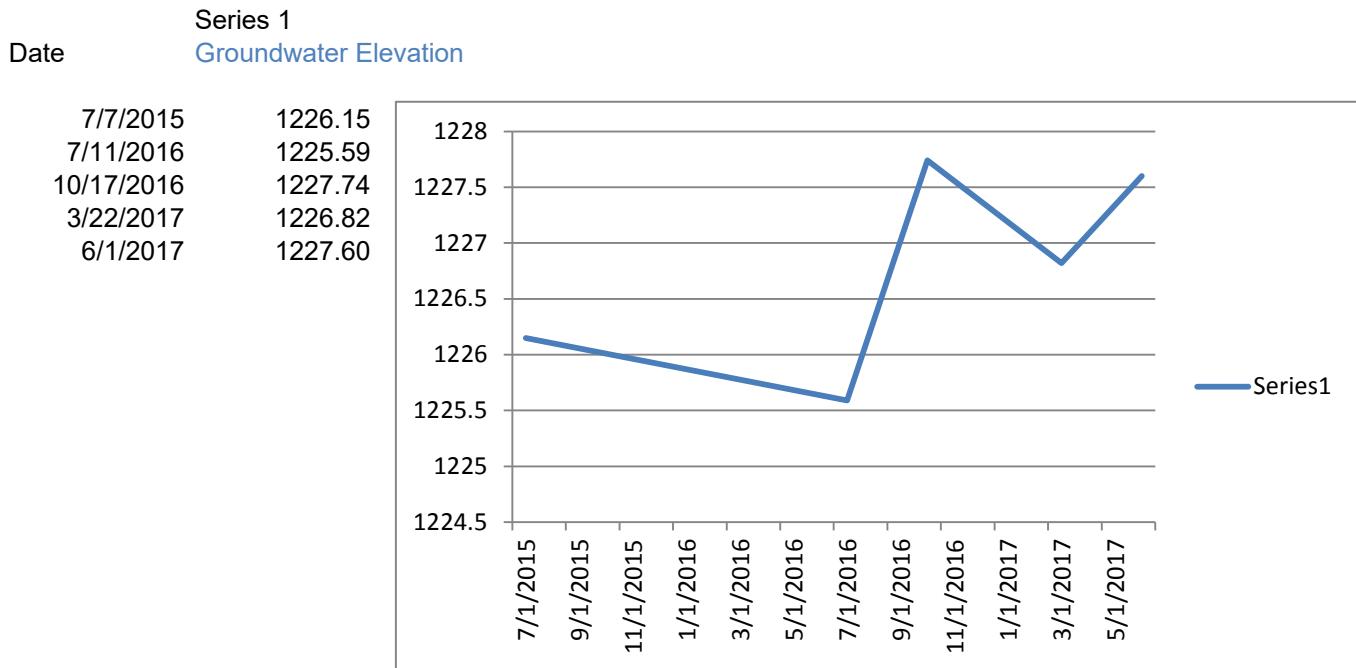
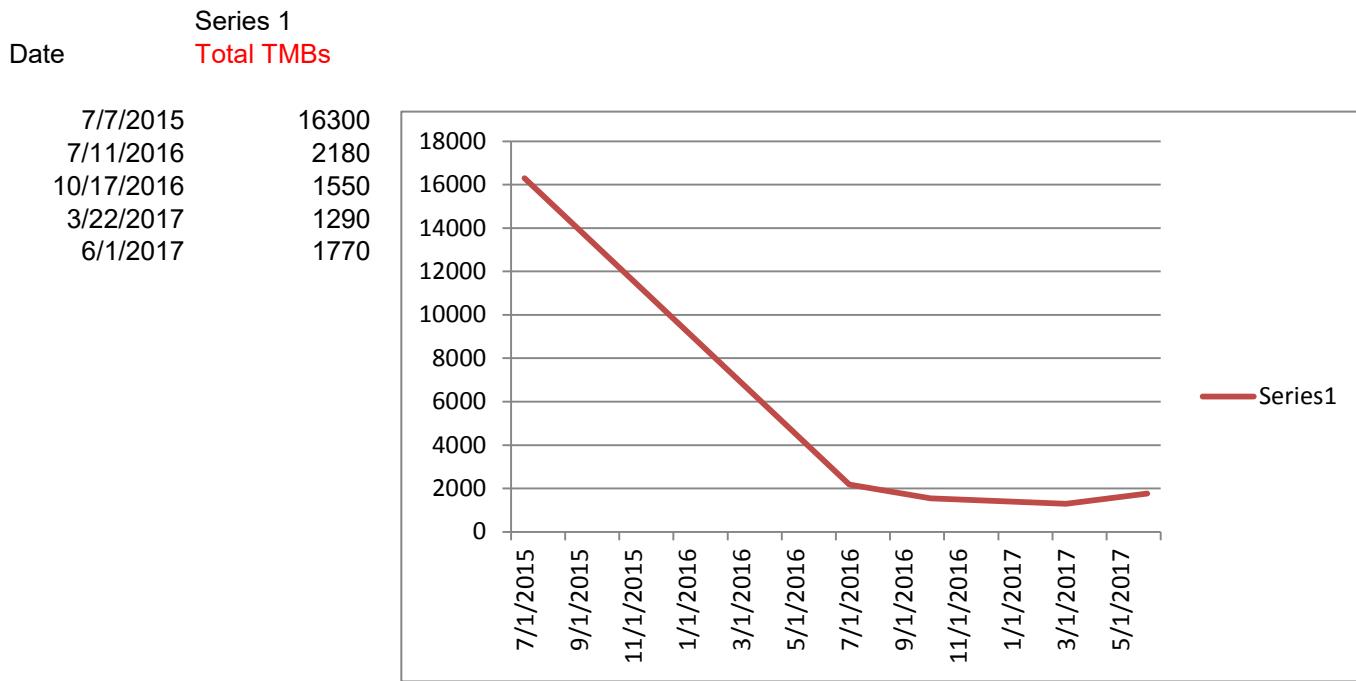


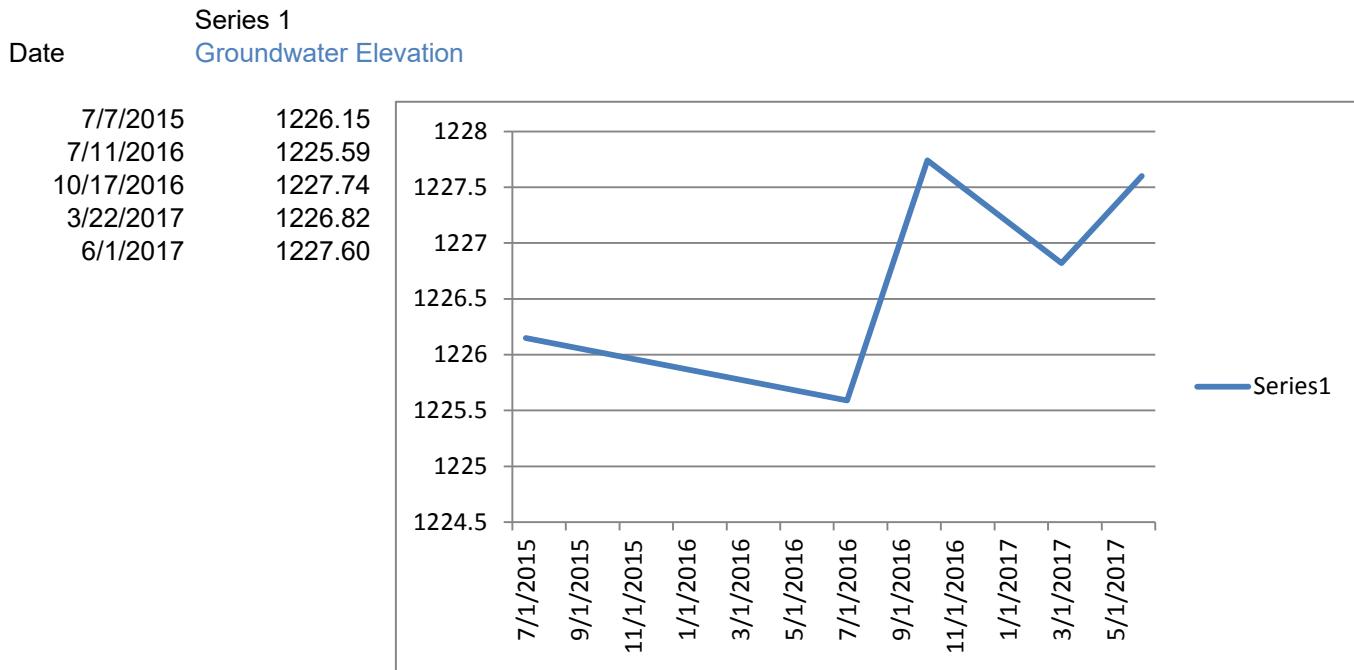
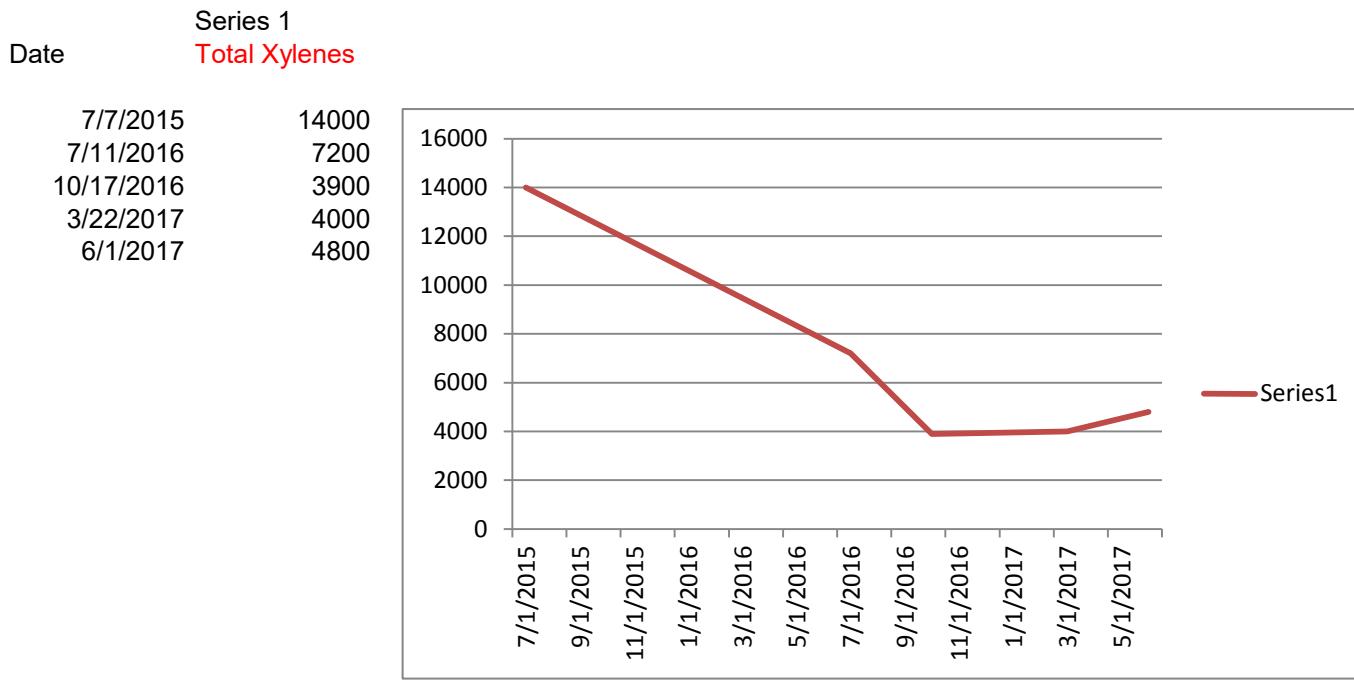
**DairiConcepts, Chili, WI - MW-4/4R - Post Remediation**

**DairiConcepts, Chili, WI - MW-4/4R - Post Remediation**

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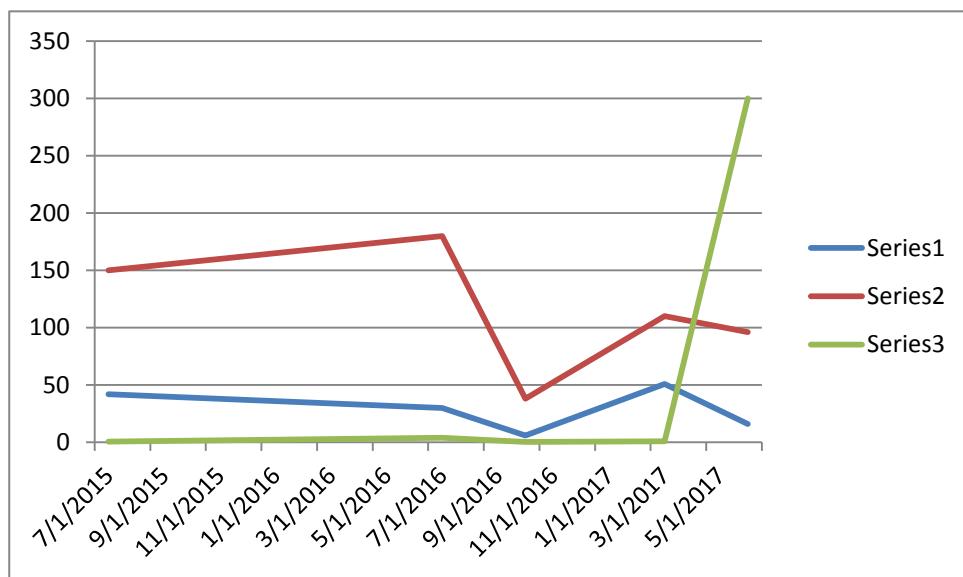
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**DairiConcepts, Chili, WI - MW-4/4R - Post Remediation**

## DairiConcepts, Chili, WI - MW-5A - Post Remediation

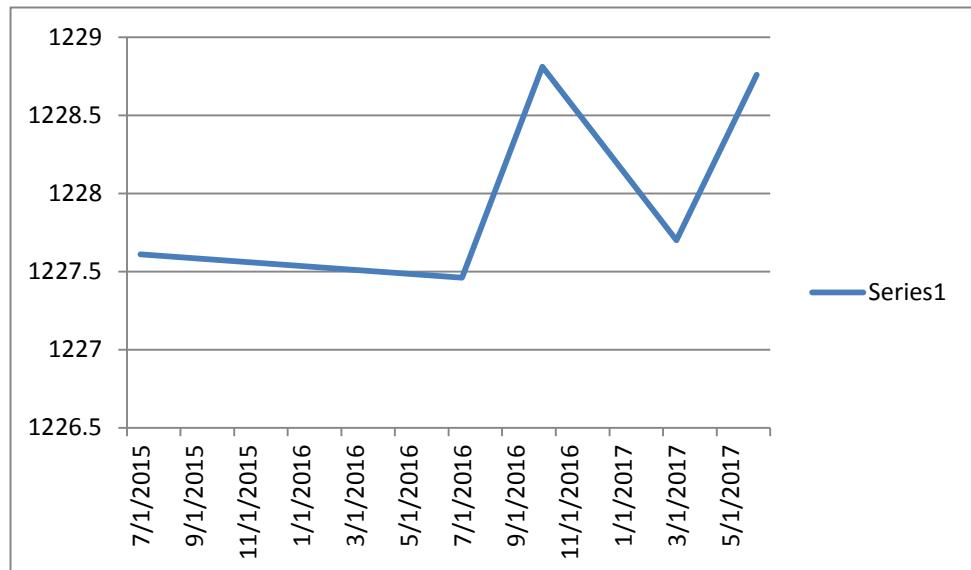
Date	Series 1 Benzene	Series 2 Naphthalene	Series 3 MTBE
------	---------------------	-------------------------	------------------

7/7/2015	42	150	0.6
7/11/2016	30	180	3.95
10/17/2016	6	38	0.425
3/22/2017	51	110	1
6/1/2017	16	96	300



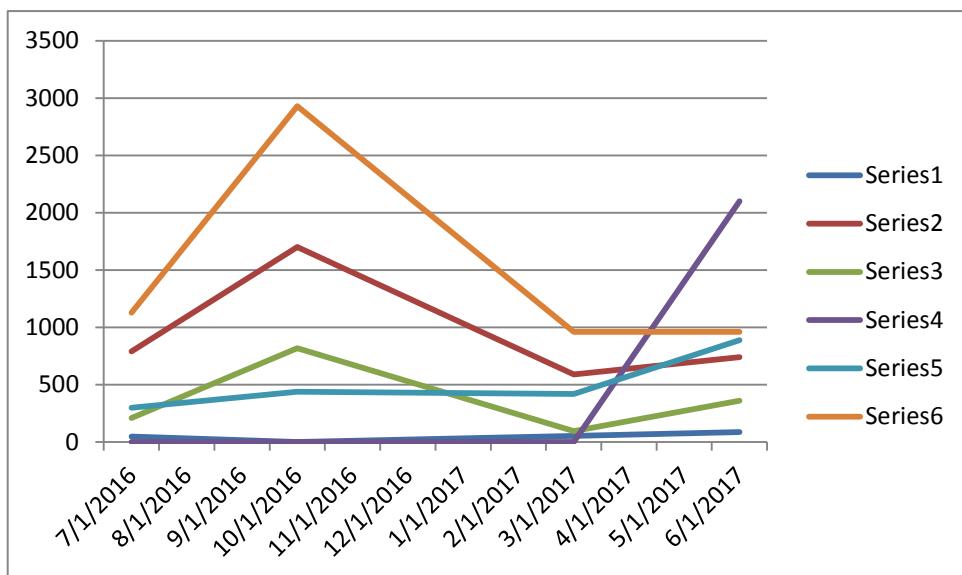
Date	Series 1 Groundwater Elevation
------	-----------------------------------

7/7/2015	1227.61
7/11/2016	1227.46
10/17/2016	1228.81
3/22/2017	1227.70
6/1/2017	1228.76



## DairiConcepts, Chili, WI - MW-10 - Post Remediation

Date	Series 1 Benzene	Series 2 Ethylbenzene	Series 3 Naphthalene	Series 4 MTBE	Series 5 Toluene	Series 6 TMBs
7/11/2016	49	790		210	1	300
10/17/2016	1	1700		820	0.85	440
3/22/2017	54	590		97	1	420
6/1/2017	87	740		360	2100	890



Date	Series 1 Groundwater Elevation
7/11/2016	1225.57
10/17/2016	1227.88
3/22/2017	1226.92
6/1/2017	1227.69

