

***ADDENDUM TO
PERFLUOROCARBON (PFC)-CONTAINING
FIREFIGHTING FOAMS AND THEIR USE IN
FIREFIGHTING TRAINING IN MINNESOTA***

DELTA PROJECT NO. 19382-DEL0

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TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 Purpose and Scope of Services	1
1.2 Scope of Work.....	1
1.3 Limitations.....	3
2.0 ADDITIONAL SURVEY OF MUNICIPAL FIRE DEPARTMENTS	3
2.1 Questionnaires Received Via Mail Post-June 30 th Report.....	3
2.2 Questionnaires Lacking Training Site Locations	4
2.3 Questionnaires Lacking Foam Information	5
2.4 Follow-Up With Municipal Fire Departments Located in WPAs	8
2.5 Follow-Up With Municipal Fire Departments Located in SWAAs	8
3.0 ADDITIONAL SURVEY OF FIREFIGHTING TRAINING SCHOOLS.....	9
4.0 ADDITIONAL SURVEY OF FIREFIGHTING FOAM MANUFACTURERS.....	9
4.1 Department Ranking Changes Due to HCT F-500 Information.....	10
5.0 GIS MAPPING OF FOAM TRAINING SITES	10
6.0 TRAINING SITE RANKING RESULTS.....	10
6.1 Site Profiles	11
6.2 Ranked Municipal Fire Departments	13
6.3 Ranked Training Schools.....	13
7.0 CONCLUSIONS.....	13
7.1 SURVEY RESPONSES	13
7.2 HIGHEST RISK TRAINING SITES FOR PFC RELEASE	14
7.3 FIREFIGHTING FOAM MANUFACTURER RESPONSE.....	15
8.0 RECOMMENDATIONS.....	15
9.0 REMARKS	17

List of Tables

Table 1	U.S. Manufacturers of Firefighting Foams (No change from June 30 th Report)
Table 2	All Municipal Fire Department Questionnaire Responses
Table 3	Municipal Fire Department with No Firefighting Foam Use
Table 4	Municipal Fire Departments That Train With Class B Foams
Table 5	Questionnaire Responses from Airport and Refinery Fire Departments and Training Schools
Table 6	Training Sites with 3M Foam Use
Table 7	Municipal Fire Departments Located Within Source Water Assessment Areas

List of Appendices

Appendix A	Questionnaires Received Post-June 30 th Report
Appendix B	GIS Map of Training Sites, Fire Departments and SWAAs
Appendix C	Updated Training Site Summaries from June 30 th Report
Appendix D	Municipal Fire Department Training Site Profiles for Sites Ranked Post-June 30 th Report
Appendix E	School Training Site Profile for Site Ranked Post-June 30 th Report

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

Delta Consultants (Delta) was retained and authorized by the Minnesota Pollution Control Agency (MPCA) to conduct additional survey activities into the use of firefighting foams containing perfluorocarbons (PFCs) in the State of Minnesota. The additional survey activities were based on the conclusions and recommendations presented in Delta's *Perfluorocarbon (PFC)-Containing Firefighting Foams and Their Use In Firefighting Training in Minnesota* report dated June 30, 2008 (the June 30th Report).

The goal of the survey activities is to identify sites in Minnesota where certain types of PFCs of particular environmental concern at this time, perfluorooctane sulfonate (PFOS), perfluorooctanoic acid (PFOA), perfluorobutanoic acid (PFBA), and others, may be present in the environment due to the repeated use of firefighting foams at firefighting training locations. The June 30th Report concluded that surfactants used in Class B firefighting foams are manufactured with PFCs. Firefighting foams formerly manufactured by 3M were made using a proprietary process and are known to contain or break down to PFOS and PFOA. The surfactants in Class B firefighting foams manufactured by companies other than 3M were made using a telomerization process and cannot break down to PFOS, but may break down to PFOA and other PFC compounds. Class A foams and training foams are not made with PFC-based surfactants and are therefore not a source of PFCs in the environment.

1.2 Scope of Work

The following scope of work was conducted under Master Contract Number B15536 and Contract Work Order Number SFDE0911.

Task 1 – Obtain Additional Information and Update Report Tables

Delta obtained additional information from Minnesota municipal fire departments, fire training schools, and manufacturers of fire-fighting foams as described below.

- Updated the following tables of the June 30th Report with information from survey questionnaires returned to Delta after June 13, 2008:
 - Table 2, *All Municipal Fire Department Questionnaire Responses*
 - Table 3, *Municipal Fire Departments with No Firefighting Foam Use*
 - Table 4, *Municipal Fire Departments That Train With Class B Foams*
 - Table 5, *Questionnaire Responses from Airport and Refinery Fire Departments and Training Schools*

o Table 6, *Training Sites with 3M Foam Use*

- Followed up via telephone and other means with the municipal fire departments that responded to the survey that they train or potentially train with Class B aqueous film-forming foam (AFFF) but did not provide training site information such that the training sites could be located on a map. With additional information from the departments the training sites were mapped and ranked.
- Followed up via telephone and other means with the municipal fire departments that reported using foam in training but did not specify what type of foam was used in training. With additional information from the departments the sites were more accurately ranked.
- Identified all fire stations and fire foam training areas that are located in a Source Water Assessment Area (SWAA), as defined by the Minnesota Department of Health (MDH). A geographical information system (GIS) map of SWAAs and a list of municipal fire departments located within a SWAA were provided by the MDH. Delta combined the SWAA layer and a GIS layer provided earlier by the MPCA that depicts all fire station locations in the State in order to obtain this information. Delta added the fire training area locations where Class B foams are used in training to the map.
- Re-ranked fire training locations where Class B foams are used to include their proximity to SWAA as a criterion.
- Followed up via telephone and other means with the municipal fire departments that did not respond to the survey and that have fire stations located in their community's Wellhead Protection Area (WPA) or are located in a SWAA. These additional training sites were then mapped and ranked, as warranted.
- Followed up with the fire training schools that did not respond to the survey before June 13, 2008, which was the cut-off date for inclusion in the previously-referenced June 30th Report.
- Followed up with the manufacturers of firefighting foams that did not respond to the survey regarding the use of PFCs in their foams. Delta again attempted to obtain information regarding what types of PFCs are used in their foam products.
- Update Tables 1 through 6 of the June 30th Report with the additional information obtained from the municipal fire departments, the fire training schools, and the foam manufacturers. The tables were updated so that no merged cells were included in the tables for easier electronic sorting per the request of the MPCA.
- Updated existing training site profiles (Appendix G of the June 30th Report) or created profiles for newly identified training sites based on the additional information obtained from the fire departments and training schools.

Task 2 – GIS Layer

Delta mapped the ranked training sites where Class B firefighting foams are used repeatedly in training exercises, as identified in Table 4, *Municipal Fire Departments That Train With Class B Foams*, in order to obtain the UTM coordinates for each training site. Delta created a GIS layer that geo-locates each of the fire training sites ranked in Table 4. The layer attributes include the fire foam use information for each training site, including the types and amounts of foam used in training and the frequency of foam training. As described in Task 1, a map layer depicting SWAAs provided by the MDH was incorporated into Delta's GIS layer.

Task 3 – Report

Delta compiled the information gathered in Tasks 1 and 2 into this report. The updated Tables 1 through 6 and any new training site summaries are included with this report, as well as an electronic version of the GIS layer.

1.3 Limitations

Delta's research and this report are subject to the following limitations:

- Delta obtained, reviewed, and evaluated information provided voluntarily by fire departments, firefighting foam manufacturers, and other knowledgeable persons. Delta's services do not include the verification of the accuracy or authenticity of this information.
- Delta did not perform any site reconnaissance or directly observe any of the fire training sites. Information regarding the locations, arrangements and physical characteristics of the training sites are inferred from information obtained from the fire departments and maps and other publicly available information.

2.0 ADDITIONAL SURVEY OF MUNICIPAL FIRE DEPARTMENTS

At the time of the June 30th Report, Delta had received a total of 433 completed firefighting foam use questionnaires from the 785 municipal fire departments that were surveyed, a response rate of 55%. However, 8 of these questionnaires were unsigned and there was no way to determine the department of origin. Since June 13, 2008, Delta received additional questionnaires in the mail, contacted responding municipal fire departments for clarification on survey information, and contacted non-responding departments located in SWAAs and WPAs. As of October 13, 2008, an additional 34 questionnaires were received via mail from municipal fire departments, and an additional 62 questionnaires were completed via telephone with municipal fire departments. Copies of these additional completed questionnaires are included in **Appendix A**. Thus, a total of 522 of 785 municipal fire departments, or 66%, have completed and returned questionnaires regarding their use of firefighting foams. Details regarding municipal department surveys received after June 13, 2008, are presented in Sections 2.1, 2.4, and 2.5.

Forty-six of the questionnaires received via mail from municipal fire departments contained incomplete information regarding training locations, foam brands, and/or types of foam used in training exercises. Delta successfully contacted 33 of these 46 departments to obtain missing information. Additional information received from these departments are described in Sections 2.2, 2.3.

2.1 Questionnaires Received Via Mail Post-June 30th Report

Completed questionnaires were received from the below-listed municipal fire departments after June 13, 2008, when the June 30th Report was finalized. The sites were added to Table 2 or Table 3, and Tables 4 and 6, if applicable.

- Alborn
- Annandale
- Blackduck
- Brooklyn Center
- Callaway
- Cannon Falls
- Clontarf
- Dawson
- Duluth
- Gilbert
- Granada
- Harris
- Heron Lake
- Hidden Valley
- Kilkenny
- Lafayette
- Lewisville
- McDavitt
- Mendota Heights
- Mentas
- Milaca
- Normanna
- North Star Township
- Ogilvie
- Perham
- Renville
- Spring Valley
- Stephen
- Sturgeon Lake
- Victoria
- Willow River
- Wilmont
- Winnebago
- Wolverton

2.2 Questionnaires Lacking Training Site Locations

Thirty municipal fire departments initially responded to the questionnaire that they train or potentially train with Class B AFFF, but did not provide training site information such that the training sites could be mapped.

Of these thirty municipal fire departments, the following departments train with foam at various locations; there is not one training location where foam is used repeatedly, thus there is not one training site to map or rank.

- Big Lake
- Brooten
- Browns Valley
- Byron
- Canby
- Centennial
- Cohasset
- Comfrey
- Darfur
- Dover
- Edina
- Fountain
- Hastings
- Holland
- Lake Elmo
- Madelia
- Mahtomedi
- Mazeppa
- Nerstrand
- Olivia
- Ramsey
- Randolph-Hampton
- Robbinsdale
- Vergas

The remaining six departments were contacted to determine specific training location information:

- *Crosslake*: Contact with the City of Crosslake engineering department determined the exact location of the training site, and the training site was mapped and ranked.
- *Lonsdale*: The fire chief indicated that, in his 14 years on the department, he does not recall using foam for training. Table 2 was changed to reflect that the Lonsdale Fire Department does not train with foam.
- *New York Mills*: The fire chief provided the location of the site where the department trains with foam, and the training site was mapped and ranked.
- *Proctor*: The Proctor Fire Department did not respond to Delta's inquiries at the time of this report.
- *Sartell-LeSauk*: The fire chief indicated that the department trains with Dawn dish soap, and that they haven't trained with firefighting foam in years. He related that past foam training would likely have taken place at the fire station. The fire station was mapped and ranked as the training site for Sartell-LeSauk.

- *St. Francis*: The St. Francis Fire Department did not respond to Delta's inquiries at the time of this report.

2.3 Questionnaires Lacking Foam Information

In Delta's June 30th Report, ten municipal fire departments reported the use of firefighting foam in training, but did not clearly identify which type of foam was used for training. These ten departments were contacted for this information with the following results:

- *Cloquet*: The fire chief indicated that the department trains about half of the time with dish soap and half with firefighting foam, both Class A and B Angus foam, but mostly Class B. The training location was verified with the fire chief, and the site was added to Table 4, mapped and ranked.
- *Dilworth*: The fire chief indicated that the department trains at the fire station with both Class A and Class B Ansul foams. The training site was added to Table 4, mapped and ranked.
- *Jeffers*: The fire department secretary indicated that the department trains with Class A Silv-ex foam. Since the department does not train with Class B foam the site was not ranked.
- *Lanesboro*: The fire chief indicated that the department trains with both Class A and Class B AquaEco foam sticks. The training site was added to Table 4, mapped and ranked.
- *Northfield*: A Northfield fire department captain indicated on their questionnaire that Class B foam is used in training upon delivery of new apparatus every five years, and that they have not trained with foam in ten to fifteen years. Since the Class B foam brand reported was 3M, and since the department has trained in the past with 3M Class B foam, the training site was added to Tables 4 and 6, mapped and ranked.
- *Randall*: The fire chief indicated that the department trains with Pyrocom Class A and B foam sticks annually. The training site was added to Table 4, mapped and ranked.
- *Rosemount*: The fire chief indicated that the department just switched to HCT F-500 A-B foam sticks, but hasn't yet used them in training. The department previously trained with Class B AFFF and training foam. The fire chief also related that the department received old stock of Class B AFFF from the Flint Hills oil refinery and did some training with that foam; he is not sure what brand foam they received from the refinery. In 25 years on the department, the fire chief indicated that they may have used 3M foam at one time or another. The training site was added to Tables 4 and 6, mapped and ranked.
- *Stillwater*: The use of Class A foam for training was incorrectly noted as "no" in report Table 2. The Stillwater department indicated on their questionnaire that they use Class A foam only for training. Since the department does not train with Class B foam, the site was not ranked.
- *Watertown*: The fire chief indicated that the department trains at live burns in various locations with Class A foam. Since the department does not train with Class B foam the site was not ranked.
- *Willmar*: The use of Class A foam was not reflected in Table 2 of the report due to a table formatting error. The Willmar department reported on their questionnaire that they use Class A foam for training. Since the department does not train with Class B foam the site was not ranked.

Several municipal fire departments did not complete, or partially completed, Question 8 of the questionnaire regarding the types, brands and quantities of foam used by the departments. For the June 30th Report, it was assumed that these departments used Class B AFFF manufactured by 3M. The following departments were contacted for clarification of the types and brands of foam used by the

departments various information on their surveys. Tables 2, 4 and 6 were updated accordingly, as applicable.

- *Blackduck*: The fire chief indicated that the department uses Class A foam at various places occasionally for training. He also indicated that the department trained one time with Class B alcohol-resistant AFFF (AR-AFFF) with staff from the technical college in Thief River Falls. Since the department has trained only once with Class B foam, the site was not ranked.
- *Breckenridge*: The fire chief indicated that the department uses Chemguard foams. The site was removed from Table 6.
- *Brooklyn Center*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the use of Class B AFFF made by 3M for training is assumed.
- *Brooten*: The fire chief indicated that the department uses Angus Class A foam and has not used Class B foam. The department just obtained Class A/B foam sticks but hasn't used them yet. The site was removed from Tables 4 and 6.
- *Browns Valley*: The fire chief related that they use Class B AFFF for fire response, but train with training foam. The site was removed from Tables 4 and 6.
- *Buyck*: The fire chief indicated that the department has Class A foam on hand, but hasn't used any in the last four years. The site was removed from Tables 4 and 6.
- *Crosslake*: As indicated in Section 2.2, while the training location was verified with the Crosslake engineering department, Delta was unable to reach the Crosslake fire department to determine which brand of AR-AFFF is used by the department. For the purpose of this report it is assumed that the department uses 3M-brand AR-AFFF.
- *Fairmont*: The fire chief provided information on four types of foams used by the department. Foam information was updated on Tables 2, 4 and 6.
- *Hardwick*: The fire chief indicated that the department carries AR-AFFF and Class A foams, but has only used foam three times in the last seven years. The fire chief also related they do not train annually, but have trained only one time with new equipment. The site was removed from Tables 4 and 6.
- *Holland*: The fire chief indicated that the department uses Class A foam only. The site was removed from Table 4.
- *Hopkins*: The fire chief indicated that the department utilizes Class B AFFF made by 3M, but that Class B foam is not used for training. The fire chief also clarified that the department trains with Class A foam and training foam at various locations; it was incorrectly noted on the questionnaire that they train at the Hopkins fire hall at 101 17th Avenue South. Further research has found that HCT F-500 A-B fire suppression agent used by the Hopkins Fire Department does not contain PFCs (see Section 4). The site was removed from Table 4.
- *Lismore*: The fire chief indicated that the department uses Class A foam only. The site was removed from Tables 4 and 6.
- *Littlefork*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the use of Class B AFFF made by 3M for training is assumed.
- *Maynard*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the historical use of Chemguard "other" foam is assumed to be Class B foam.
- *Menahga*: The fire chief indicated that the department uses Class A foam only. The site was removed from Table 4.

- *Myrtle*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the use of Class B AFFF made by 3M for training is assumed and the site remains on Tables 4 and 6.
- *Newfolden*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the use of Oxford 229 wetting agent for training is assumed, and it is assumed that this product contains or was made with PFC-based surfactant. This site remains on Table 4.
- *New Richland*: The fire chief indicated that the "other" Chemguard foam listed on their questionnaire is a Class A foam; the department does not use Class B foam. The site was removed from Table 4.
- *New York Mills*: The fire chief indicated that the department uses Ansul Class B AFFF for training and, as noted in Section 2.2, verified their training location. The training site was added to Table 4 and was mapped and ranked.
- *Northland*: The fire chief related that the department uses Class A foam only. The site was removed from Tables 4 and 6.
- *Paynesville*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, it is assumed that the department trains with Chemguard Class B AR-AFFF and the site remains on Table 4.
- *Pine River*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, it is assumed that the department trains with Ansulite Class B AR-AFFF and the site remains on Table 4.
- *Proctor*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, it is assumed that the department trains with Jet-X AFFF and the site was added to Table 4. However, the training location was not included on the survey so the site was not mapped or ranked.
- *Ramsey*: The fire chief indicated that the department trains with Class A foam at various locations. The site was removed from Table 4.
- *Sartell-LeSauk*: The fire chief indicated that the department currently trains with Dawn dish soap, and that they haven't trained with Class B foams in years. He indicated that the department has always used Angus foams, and that any training with Class B foams in the past would have been done across the street from the fire hall. The site was added to Table 4, and was mapped and ranked.
- *St. Clair*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, the use of Class B AFFF made by 3M for training is assumed and the site remains on Tables 4 and 6.
- *Tyler*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, it is assumed that the department trains with Angus Class B AR-AFFF and the site remains on Table 4.
- *Upsala*: The fire chief indicated that the Class A-B Hi-Expansion foam currently used by the department is a Royal Chemical Company brand. He does not believe that the department historically used 3M-brand foams. The site was re-ranked and removed from Table 6.
- *Waseca*: The department did not respond to Delta's inquiries at the time of this report. For the purpose of this report, it is assumed that the department trains with Class B protein foam. (3M indicated that they did not manufacture a protein foam.) The site remains on Table 4.

2.4 Follow-Up With Municipal Fire Departments Located in WPAs

Thirty municipal fire departments located in WPAs did not return a questionnaire in time for the June 30th Report. The below-listed departments were successfully contacted and completed questionnaires were obtained. These sites were added to Table 2, and Tables 4 and 5 if applicable.

- Alexandria
- Brooklyn Park
- Caledonia
- Coleraine
- Detroit Lakes
- Farmington
- Goodview
- Jordan
- Lakeville
- LeRoy
- Litchfield
- Luverne
- Medford
- Monticello
- Osakis
- Owatonna
- Plymouth
- Richfield
- Richmond
- Rogers
- Shakopee
- St. Hilaire
- Winthrop
- Woodbury

Attempts were made to contact the following departments located in WPAs, however, the departments did not respond to Delta's inquiries at the time of this report:

- Cyrus
- Frazee
- Fulda
- Nielsville
- Red Lake Falls
- Rice

2.5 Follow-Up With Municipal Fire Departments Located in SWAAs

The MPCA provided a list of 157 municipal fire departments located in SWAAs, which was sorted by city and is included as Table 7. At the time of this report, 124 of the departments completed and returned a questionnaire to Delta, while 31 of the departments did not respond to Delta's inquiries for information. The City Clerk in Revere, Minnesota indicated that the Revere Fire Department had been dissolved and that the city is now covered by the Lambertson Fire Department. The city of Norwood Young America is listed as two separate cities (Norwood and Young America) on the fire department list, but they are one city, served by the Norwood Young America fire department. The departments that did not complete the questionnaire are identified on Table 7 and are listed below. Tables 4 and 5 were updated to identify sites located in SWAAs.

- Audobon
- Badger
- Bigfork
- Bricelyn
- Butterfield
- Climax
- Clinton
- Currie
- Delano
- Dodge Center
- Ellendale
- Elmore
- Franklin
- Frost
- Glencoe
- Gonvick
- Lake Crystal
- Navarre
- Madison
- Mapleview
- Mountain Lake
- Murdock
- Pemberton
- Plummer
- Slayton
- Storden
- Vernon Center
- Walnut Grove
- Waubun
- Wendell
- Winger

3.0 ADDITIONAL SURVEY OF FIREFIGHTING TRAINING SCHOOLS

As of the June 30th Report, Delta had received survey questionnaires back from 11 of the 16 firefighting training schools located in Minnesota. Delta contacted the following remaining five schools, and their survey information was added to Table 5:

- St. Cloud Technical College;
- Hennepin Technical College in Eden Prairie;
- Central Lakes College in Brainerd;
- Minnesota State Community College in Moorhead; and,
- Northland Community College in East Grand Forks.

Of these five schools, only the Northland Community College in East Grand Forks uses Class B foam for training exercises repeatedly at one location.

Of the 16 firefighting training schools in Minnesota, ten train off-site at various locations with students and municipal fire departments in the region.

4.0 ADDITIONAL SURVEY OF FIREFIGHTING FOAM MANUFACTURERS

Delta attempted to contact via telephone and email the following major manufacturers of firefighting foams for more information regarding the PFC content of their foams:

- Foam Ready, maker of the Pyrocom Aqua Stiks;
- Tyco, the parent company of Ansul;
- Chemguard;
- Kidde Fire Fighting, the parent company of Angus, Kidde and National foam manufacturers;
- U.S. Foam Technologies; and,
- Hazard Control Technologies (HCT).

At the time of this report, only HCT responded to Delta's inquiries. Ms. Sharon Greiner in the HCT Support Services Division indicated via telephone and email on October 20, 2008, that the HCT F-500 A-B fire suppression agent is not a foam and is not made with nor contains PFCs. Information from firefighting foam manufactures is summarized in Table 1, *U.S. Manufacturers of Firefighting Foams*.

4.1 Department Ranking Changes Due to HCT F-500 Information

For Delta's June 30th Report it was assumed that HCT F-500 A-B was a PFC-containing foam. With new information that HCT F-500 A-B does not contain PFCs, the following changes were made to Table 4:

- The table title was footnoted to reflect that HCT F-500 A-B is excluded as a Class B foam.
- The Hibbing Fire Department was removed from Table 4 since the only Class B foam they use is HCT F-500 A-B. The Hibbing Fire Department was also removed from the ranked sites.
- The Hopkins Fire Department was previously included on Table 4 for their use of HCT F-500 A-B foam. Delta contacted the Hopkins Fire Department to clarify their use of training foams. The Hopkins Fire Chief indicated that the department utilizes Class B AFFF made by 3M, but that Class B foam is not used for training. The fire chief also clarified that the department trains with Class A foam and training foam at various locations; it was incorrectly noted on the questionnaire that they train at the Hopkins fire hall at 101 17th Avenue South. The Hopkins Fire Department was removed from Table 4 and the ranked sites.
- The Edina Fire Department was removed from Table 4 since the only foam they use is HCT F-500 A-B. Edina doesn't utilize just one set training site, so the department was not ranked.

5.0 GIS MAPPING OF FOAM TRAINING SITES

Delta generated a geographical information system (GIS) layer of the ranked training sites where Class B firefighting foams are used repeatedly in training exercises, as identified in Table 4. The layer was constructed using coordinates provided for each station's location during the survey process. The coordinates were then incorporated into a data table utilizing information compiled in Table 4 and the site summaries. The updated site summaries are discussed further in Section 6.0.

The data attribute table that is integrated with the GIS layer includes fire foam use information for each training site, including the types and amounts of foam used in training, the frequency of foam training and the site risk ranking and criteria.

The GIS layer is attached as **Appendix B** as an electronic file on a compact disc.

6.0 TRAINING SITE RANKING RESULTS

As detailed in the June 30th Report, the training sites where Class B firefighting foam is used in training exercises were ranked in order to identify those with the highest potential to create PFC impacts to the soil, groundwater and surface waters. The sites were ranked according to the following criteria:

- Brand of foam used in training
- Annual foam usage for training
- Proximity of nearby surface waters

- Proximity of nearby wetlands
- Proximity to karst areas
- Proximity to nearby water wells
- Proximity to WPAs

Another consideration was added to the ranking criteria: the proximity of the training site to SWAAs. The proximity to SWAAs and WPAs were combined, so that sites located with a WPA or SWAA were assigned a score of 5, sites located within 1/4-mile of a WPA or SWAA were assigned a score of 4, and sites located between 1/4-mile and 1 mile of a WPA or SWAA were assigned a score of 2. This additional criterion changed the ranking score of the following fire departments since the June 30th report:

- Buffalo Lake: total score changed from 13 to 15.
- Cass Lake: total score from 9 to 13.
- Claremont: total score from 18 to 23.
- Dunnell-Lake Fremont: total score from 5 to 9.
- Hamburg: total score from 13 to 15.
- Harmony: total score from 14 to 19.
- Linwood Township: total score from 21 to 23.
- Littlefork: total score from 19 to 23.
- Mankato: total score from 19 to 21.
- Maynard: total score from 7 to 12.
- Myrtle: total score from 17 to 22.
- Newfolden: total score from 7 to 12.
- Pierz: total score from 17 to 22.
- Silver Lake: total score from 11 to 15.
- Waldorf: total score from 11 to 16.
- Waseca: total score from 9 to 13.
- Welcome: total score from 9 to 14.

Delta assigned a relative numerical score for each criterion that was meant to reflect the relative importance of each parameter with respect to its potential to release PFCs to the environment and the sensitivity of the environmental receptors.

6.1 Site Profiles

Site profiles were prepared for ranked fire departments and schools that use Class B firefighting foam in training exercises. The site profiles include the following:

- site summary sheet;

- topographic map showing the site location, Wellhead Protection Areas (where present) and nearby well locations obtained from the MDH's on-line County Well Index (CWI) program;
- well records for nearby wells obtained from the MDH's CWI program;
- wetland map obtained from the U.S. Fish & Wildlife Service's on-line National Wetlands Inventory; and,
- MPCA *What's In My Neighborhood* map showing nearby release sites.

Site profiles for the fire departments and schools listed in the table below were included in the June 30th Report. The site summaries for these fire departments and schools were updated to include the GIS coordinates and the sites proximity to a SWAA. Copies of these updated site summaries are included in **Appendix C**. Site profiles for municipal fire departments and schools that responded after the June 30th Report are discussed in Sections 6.2 and 6.3.

- | | | |
|-------------------------|-----------------------------|--|
| • Albert Lea | • Hibbing ¹ | • Pine River |
| • Apple Valley | • Hopkins ¹ | • Porter |
| • Appleton | • Hoyt Lakes | • Preston |
| • Babbitt ¹ | • Hugo | • Rochester |
| • Bemidji | • Hutchinson | • Silver Lake |
| • Blackhoof | • Linwood | • St. Clair |
| • Breckenridge | • Lismore ¹ | • St. Cloud |
| • Buffalo Lake | • Littlefork | • St. Paul |
| • Burnsville | • Loretto | • Tyler |
| • Buyck ¹ | • Mankato | • Upsala |
| • Cass Lake | • Marshall | • Waconia |
| • Claremont | • Maynard | • Waldorf |
| • Cottage Grove | • Minneapolis | • Waseca |
| • Dunnell-Lake Fremont | • Montevideo | • Welcome |
| • Ellsburg | • Myrtle | • Winona |
| • Evansville | • New Richland ¹ | • Winsted ¹ |
| • Fairmont | • Newfolden ² | • Duluth Airport |
| • Fridley | • North St. Paul | • MSP Airport |
| • Glenville | • Northland ¹ | • Rochester Airport |
| • Golden Valley | • Northrop | • Flint Hills Pine Bend Refinery |
| • Hamburg | • Paynesville | • Marathon Refinery |
| • Hardwick ¹ | • Pelican Rapids | • Former Wrenshall Refinery |
| • Harmony | • Pierz | • Lake Superior College, Duluth |
| | | • South Central College, North Mankato |

(1) Updated information indicates these departments do not use Class B PFC-containing foam in training exercises, therefore, these sites were removed from Table 4 and are no longer ranked.

(2) New training site location information was received and the other components of the site profile were also updated. The updated CWI topographic maps, wetland maps, and MPCA *What's In My Neighborhood* maps are included in **Appendix C** along with the updated site summary.

6.2 Ranked Municipal Fire Departments

Training sites associated with 80 municipal fire departments are currently ranked due to their repeated use of Class B foam in training exercises at one training location. Some of the departments reported more than one repeatedly-used training site, and each of those sites were ranked separately. Since the June 30th Report, nine municipal departments (Babbitt, Buyck, Hardwick, Hibbing, Hopkins, Lismore, New Richland, Northland, and Winsted) were removed from the rankings because it was determined that they do not train with Class B foam. Since the June 30th Report, the following municipal fire departments were ranked and added to Table 4:

-
- | | | |
|-------------------|-------------------------|------------------|
| • Alborn | • Goodview | • Perham |
| • Alexandria | • Kenyon | • Plymouth |
| • Brooklyn Center | • Lake Johanna | • Randall |
| • Cannon Falls | • Lanesboro | • Richfield |
| • Clearbrook | • Luverne | • Richmond |
| • Cloquet | • Mapleton | • Rosemount |
| • Crosslake | • New York Mills | • Sartell-LeSauk |
| • Dilworth | • Northfield | • Wolverton |
| • Elysian | • Norwood-Young America | |
-

Site profiles for these additional ranked municipal fire departments are included in **Appendix D**.

6.3 Ranked Training Schools

Since the June 30th Report, one additional training school, the Northland Community College in East Grand Forks, was ranked due to their repeated use of Class B foams on school grounds. A total of three schools report training with Class B foams at their college campuses, also including the Lake Superior College in Duluth and the South Central College in North Mankato. The site profile for the Northland Community College in East Grand Forks is included in **Appendix E**.

7.0 CONCLUSIONS

7.1 SURVEY RESPONSES

At the time of this report, a total of 522 of 785 municipal fire departments have responded to the Firefighting Foam Use Questionnaire, excluding the eight unsigned questionnaires. Survey of municipal fire departments across the State found that:

- Fifty-two (or 10%) of the responding municipal fire departments do not use firefighting foam at all.
- Of the responding municipal fire departments that utilize firefighting foam, 243 (or 52%) use only Class A foams, with no use of Class B foams.
- Of the remaining 227 responding municipal fire departments that utilize Class B firefighting foams, approximately 50% do not train with Class B foam but use Class B foam for fire response.
- Of the municipal fire departments that train with Class B foam, 28% of the departments train at multiple or different locations for every training session, or at live burns only. Thus there is not one repeatedly-used training location to rank.

- The remaining 79 municipal fire departments that train with Class B foam at select locations were ranked. Twenty-eight of these departments use, presumably use, or have used 3M-brand foam for training.
- Only 3 of the 16 firefighting training schools in the State train on campus with Class B foam. Some schools go out into the community to teach foam firefighting to local departments at their stations, some train on campus only with Class A foam, and one school does not train with foam.

7.2 HIGHEST RISK TRAINING SITES FOR PFC RELEASE

For the purpose of this report, Class B firefighting foam training sites located in environmentally sensitive areas such as SWAAs, WPAs and karst areas are presumed to be the sites with the highest potential for PFC impacts to soils, groundwater and surface waters. In addition, since foams manufactured by 3M are the only Class B foams with the potential to break down to PFOS, the higher risk sites where the Class B foam used for training was manufactured by 3M are highlighted in this discussion.

The following sites are presumed to be the sites with the highest potential for PFC impacts to soils, groundwater and surface water, based on training site location and the amount and type of foam used in training:

- *Minneapolis/St. Paul International Airport*: Located in a WPA and an active karst area, with up to 40 gallons of foam used annually for training. The airport fire department used Class B foam manufactured by 3M through approximately 2000.
- *Marathon Refinery, St. Paul Park*: Located in an active karst area near the Mississippi River, with approximately 250 gallons of foam used annually for training. The Marathon Refinery used 3M Class B foams through approximately 2000.
- *Flint Hills Pine Bend Refinery, Rosemount*: Located in a transition karst area, with approximately 300 gallons of foam used annually for training. Foams manufactured by 3M were historically used in training.
- *Duluth International Airport*: The former training location at the Duluth International Airport is under an active site investigation for PFCs under direction of Ms. Jane Mosel, MPCA. While 3M-brand foam still used in fire response, the Minnesota Air National Guard no longer trains at the airport with foam.
- *South Central College, North Mankato*: Located in a SWAA and a covered karst area, with approximately 60 gallons of various brands of foam used annually for training.
- *Kenyon Fire Department*: Located in a SWAA and an active karst area, with current use of 3M-brand foam for bi-annual training.
- *Pierz Fire Department*: Located in a SWAA and less than 1/8 mile west of the Skunk River, with current use of 3M-brand foam for bi-annual training.
- *Claremont Fire Department*: Located in a SWAA and a transition karst area, with current use of 3M-brand foam for annual training.
- *Cottage Grove Fire Department*: Located in or adjacent to a WPA and an active karst area, with use of 3M foam in training.
- *Alexandria Fire Department*: The training location at the Magellan tank farm is located in a SWAA and a WPA, with presumed use of 3M-brand foam. The Alexandria Fire Chief was unsure as to the brand of foams used in training.

- *Myrtle Fire Department:* Located in a SWAA and an active karst area, with presumed use of 3M foam for training.
- *Harmony Fire Department:* Located in a SWAA and an active karst area.
- *Bemidji Fire Department:* The airport training location is in a WPA with surface waters and wetlands adjacent to the airport, with current use of 3M foam for annual training.
- *Fridley Fire Department:* Located in a WPA and a transition or covered karst area, historic use of 3M foam used in training.
- *Brooklyn Center Fire Department:* Both training sites are located in WPAs and either transition or covered karst areas, with presumed use of 3M foam in their quarterly training.
- *Burnsville Fire Department:* Located in a WPA and apparently located in an active karst area.
- *Goodview Fire Department:* Located in a WPA and an active karst area, with the Mississippi River located approximately 1/4 mile away.
- *North St. Paul Fire Department:* Located in a WPA and covered karst area, with use of 3M foam used in semi-annual training.
- *Preston Fire Department:* The fairgrounds training site is located in an active karst area and within 1/4-mile of a WPA, with the South Branch of the Root River bending around the north side of the fairgrounds, and with current of use 3M foam.
- *Richfield Fire Department:* Located in a WPA and covered karst area with adjacent surface water, and with historical use of 3M foam in bi-annual training.
- *Rochester Fire Department:* Located in a WPA and active karst area, with use of 3M foam in annual training.

7.3 FIREFIGHTING FOAM MANUFACTURER RESPONSE

The firefighting foam manufacturers are either reluctant to share information, or do not have detailed data, regarding the PFC content of their firefighting foams. General literature presented in the June 30th Report indicates that Class B firefighting foams contain PFC-based surfactants. While additional details regarding the types, percentages and breakdown products of PFCs could be used to evaluate the relative potential for various brands of foam to release select PFCs to the environment, this data is not readily available. For the purpose of ranking sites and recommending further investigation, it is assumed that all Class B foams have similar potential to release PFCs to the environment, with the exception of foams made by 3M. As presented in the June 30th Report and as stated in Section 1.1, firefighting foams formerly manufactured by 3M have been shown to contain or break down to PFOS and PFOA.

8.0 RECOMMENDATIONS

Based on the findings of this research project, Delta recommends the following activities:

1. Contact Ms. Jane Mosel of the MPCA regarding their investigation of PFC impacts at the Duluth International Airport. Obtain information regarding their investigation and sampling procedures, and findings.

2. Further investigation of some or all of the presumed high-risk firefighting foam training sites identified in Section 7.2. Further investigation of these sites may include, but may not be limited to, the following activities:
 - Sample public water systems in the associated WPA or SWAA.
 - Schedule an appointment with the fire departments to conduct site visits to observe the training site and surrounding area for site topography and drainage, surficial karst features, nearby surface waters and wetlands, and other potential receptors of PFCs in the environment. Observe the training site for potential soil, groundwater and/or surface water sample locations.
 - Obtain property access for the collection of soil, groundwater and/or surface water samples from the training sites.
 - Obtain soil, groundwater and/or surface water samples for laboratory analysis of PFOS, PFOA, and any other PFCs of concern to the MPCA.
3. Analyze and compare sample results with respect to the types, brands and estimated amounts of foam discharged at the training sites and the types of analytes detected and the analyte concentrations.
4. Analyze and compare sample results with historic PFC sampling conducted by the State.
5. Create GIS layers of analytical results to graphically display PFC concentrations in soil, groundwater and/or surface water with respect to SWAAs, WPAs and other ecological receptors. The GIS map layers could be used to identify analyte concentration trends, receptors at risk, aerial coverage gaps, etc.
6. Consider identification of fire sites where significant quantities of Class B foam have been discharged in response to a large fire. Class B foam is intended for use on chemical or petroleum fires. This information may be obtained by contacting the eight fire departments or schools that report an annual usage of more than 25 gallons of Class B foam annually: the Burnsville Fire Department, the Richmond Fire Department, the Winona Fire Department, the Flint Hills Refinery in Rosemount, the Marathon Petroleum Refinery in St. Paul Park, the Minneapolis-St. Paul International Airport, the Duluth International Airport, and the Northland College in East Grand Forks. This information may also be available by interviewing personnel at the State Fire Marshal's office, the Minnesota State Fire Chiefs Association, the Minnesota State Fire Department Association, the Minnesota State Volunteer Firefighters Association, and/or the municipal fire departments where major bulk storage facilities with capacities of one million gallons or more are located.

9.0 REMARKS

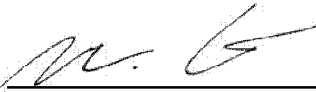
The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. The contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's client and anyone else specifically identified in writing by Delta as a user of this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.



Nancy Rodning
Project Geologist

Date: October 22, 2008

Reviewed by:



John Estes
Project Manager

Date: October 22, 2008

TABLES

Table 1	U.S. Manufacturers of Firefighting Foams (No Change from June 30 th Report)
Table 2	Municipal Fire Department Questionnaire Responses
Table 3	Municipal Fire Department with No Firefighting Foam Use
Table 4	Municipal Fire Departments That Train With Class B Foams
Table 5	Questionnaire Responses from Airport and Refinery Fire Departments and Training Schools
Table 6	Training Sites with 3M Foam Use
Table 7	Municipal Fire Departments Located Within Source Water Assessment Areas

TABLE 1
U.S. MANUFACTURERS OF FIREFIGHTING FOAMS
 October 15, 2008

MANUFACTURER	CONTACT INFO	TYPES OF FOAM									
		Class B AFFF Lightwater ¹	Class B AR-AFFF Lightwater ATC ¹	Class B Protein	Class B FP	Class B FFP	Class B AR-FFP	Class A,B H-EX	Class A ⁽¹⁾	Training Foam ⁽²⁾	Other
3M	Michael Santoro Director of Regulatory Affairs 3M Corporate Headquarters 3M Center St. Paul, MN, 55144 (651)733-6374 www.3m.com	Ansilite 3% Ansilite 3% Ansilite Premium 6% Thunderstorm 3% Thunderstorm ATC 3%/6% www.ansul.com	Ansilite 3x3 Low Viscosity Ansilite 3%/6% Ansilite ARC 3 or 6 Thunderstorm ATC 1%/3% Thunderstorm ATC 3%/6% Thunderstorm ATC 3%/6%	Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3%	Ansilite 3%						
Tyco Fire & Security (Ansu)	Colleen Repplier President 451 N. Central Ave. Suite 100 (215)934-0241 colleen_repplier@tyccfp.com www.ansul.com	Ansilite 3% Ansilite 3% Thunderstorm 3% Thunderstorm ATC 3%/6% www.ansul.com	Ansilite 3x3 Low Viscosity Ansilite 3%/6% Ansilite ARC 3 or 6 Thunderstorm ATC 1%/3% Thunderstorm ATC 3%/6% Thunderstorm ATC 3%/6%	Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3% Ansilite 3%	Ansilite 3%			SIW-EX Ansilite A Thunderstorm SFFF	Ansilite Training Foam		
Dupont	Mark P. Verriano Group Vice President DuPont Safety & Protection Banley Hill Plaza 4417 Lancaster Pike Wilmington, DE 19805 www.dupont.com	Forafac 1157 Forafac 1157N Forafac 1183 Forafac 1203 Forafac 1288	Forafac 1157 Forafac 1157N Forafac 1183 Forafac 1203 Forafac 1288		Forafac 1157 Forafac 1157N Forafac 1210						
Chenguard	3M Sales & Marketing Fire Suppression Division 204 South St. John Avenue Harrisfield, TX 76063 617-473-9984 / 2205 www.chenguard.com	1% AFFF 3% AFFF 8% AFFF	Ultraguard 3% Ultraguard 1% Ultraguard 1% 3%-3% AR-AFFF 3%-3% AR-AFFF								
Kiddie Fire Fighting	180 Sheree Blvd., Suite 9300 Houston, TX 77058 610-353-4400 www.kiddle-fire.com	1% AFFF 3% AFFF 8% AFFF	Ultraguard 3% Ultraguard 1% Ultraguard 1% 3%-3% AR-AFFF 3%-3% AR-AFFF								
--Angus											
--Falcon											
--National											
U.S. Foam Technologies	Allen Orzant President 600 East Cotton Street Longview, TX 75602 (936) 786-2000 www.usfoam.com	US Foam 1% US Foam AFFF 3% US Foam AFFF 6%	US Foam 1%-3% US Foam 3%-3% US Foam 3%-4%								
Buckeye Fire Equipment	Thomas J. Boyer President 115 Kings Road Kings Mountain, NC 28108 704-739-7415 www.buckeye.com	Platinum 1% Platinum 3% Platinum 6%	Platinum 3%-6% Buckeye Platinum 3%								

TABLE 1
U.S. MANUFACTURERS OF FIREFIGHTING FOAMS
 October 15, 2008

MANUFACTURER	CONTACT INFO	TYPES OF FOAM							Other Fire Retardants		
		Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FP	Class B FFFP	Class B AR-FFP	Class A-B HEx		Class A ⁽¹⁾	Training Foam ⁽²⁾
TCL Performance Products (Phos-Chek)	Eddie Goldberg Fire Safety Business Director Edward.goldberg@tcl-ppip.com www.phoschek.com	--	--	--	--	--	--	Class A ⁽¹⁾ Phos-Chek MD 891	--	--	Other Fire Retardants
Fire-Trol Holdings, L.L.C.	2620 N. 27th Drive Phoenix, AZ 85009 530-865-4952	--	--	--	--	--	--	Fire-Trol Class A Fireteam 103 Fire-Trol Class A Fireteam 103B Fire-Trol Class A Fireteam 104	--	--	Fire-Trol Fire Retardants (powder, gel and liquid)
Verde Environmental, Inc.	William L. Soggin President and CEO 6223 Easton Freeway Mesa, AZ 85207 602-338-6508 713-581-8488 www.micro-blaze.com	Micro-Blaze Out Plus 3%	Micro-Blaze Out Plus 3%/3%	--	--	--	--	Micro-Blaze Out	--	--	--
Hazard Control Technologies (HCT)	150 Walter Way Fayetteville, GA 30214 (770)718-5117 www.hctworld.com	--	--	--	--	--	--	Primaide Class A	--	--	Inferno Flame Retardant F-500 A-B foam ⁽²⁾
Dynac Corporation	Dr. Edward Kliner President 79 Westchester Av. PO Box 285 Pound Ridge, NY 10578 914-764-0202 www.dynacorp.com	Dynac Corporation manufactures fluorosurfactants and fluorocemical foam stabilizers for use in the production of AFFF, AR-AFFF, FFFP, AR-FFP, and FFFP-Dynac.	--	--	--	--	--	--	--	--	--

NOTES:
 (1) Foam known to contain or degrade to PFOS and PFOA.
 (2) Foam not made with PFCs.

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**TABLE 2
ALL MUNICIPAL FIRE DEPARTMENT QUESTIONNAIRE RESPONSES
October 15, 2008**

Department	Location	Site in Source Water Assessment Area?	Foam Use Frequency For Fire Response		Foam Use Frequency in Training	Amount of Foam Use in Training		Spent Foam Destination		Training Location	Types of Foam												Annual Foam Usage	Foam Used in Training?	Historic Use?	Site Notes	SITE RANKING CRITERIA		Overall Site Ranking					
			0-25% of Fires	25-50% of Fires		75-100% Fires	CAFS Tank on Engine?	Weekly	Monthly		Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other					Class B AFFF	Class B AR-AFFF		Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX
Meacham	Meacham	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Fire Hall at 8855 Hwy 133 & Hwy 7	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Medford	Medford	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Fire hall parking lot. Not applicable	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Medicine Lake	Medicine Lake	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Various houses	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Melrose	Melrose	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Usually the fire hall parking lot.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Menasha	Menasha	Y	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Various houses	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Menasha Heights	Menasha Heights	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Usually the fire hall parking lot.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Mercer	Mercer	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Middle River	Middle River	Y	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	2nd St. & Hill Av.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Milaca	Milaca	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Milan	Milan	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Not specified	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Minneapolis	Minneapolis	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	25 57th Ave. NE	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Minnetonka	Minnetonka	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Not applicable	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Montevideo	Montevideo	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Fire station, 103 Cannon Av.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Montgomery	Montgomery	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Front of fire hall (207 Ash Av.)	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Monticello	Monticello	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Montrose	Montrose	Y	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	260 2nd St. S.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Moorehead	Moorehead	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	Moorehead Youth Hockey Arena, dish west of arena, 707 SE Main Av.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			
Moose Lake	Moose Lake	N	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Sanitary Sewer	Ground	Other	North side of fire hall, part lot B33 Prop. 23	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class B A-B HFX	Class A	Training Foam	Other	Class B foam use only, site not ranked	Class A foam use only, site not ranked			

TABLE 2
ALL MUNICIPAL FIRE DEPARTMENT QUESTIONNAIRE RESPONSES
 October 15, 2008

Department	Location	Site in Source Water Assessment Area?	Foam Use Frequency For Fire Response:		Foam Use Frequency in Training:		Amount of Foam Use in Training:			Spent Foam Destination:				Types of Foam:														Annual Foam Usage:				Historic Use?		Site Ranking Criteria:			Overall Site Ranking						
			0-25% of Fires	25-50% of Fires	75-100% of Fires	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Training Location	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?		Historic Use?	Water Wells Nearby: within 1/4 mile=1; within 1/2 mile=2; within 1 mile=3; mile=4; mile=5; mile=6; mile=7; mile=8; mile=9; mile=10	Surface Water Nearby: within 1/4 mile=1; within 1/2 mile=2; within 1 mile=3; mile=4; mile=5; mile=6; mile=7; mile=8; mile=9; mile=10	WPA/SPA/MA: and/or site in WPA within 1/4 mile=1; within 1/2 mile=2; within 1 mile=3; mile=4; mile=5; mile=6; mile=7; mile=8; mile=9; mile=10		
New York Mills	New York Mills	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	City utility, gravel parking lot east side of town, between Centennial Dr. W. and Hwy. 10.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	3	2	13
Newfoden	Newfoden	Y	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Fire hall	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Newport	Newport	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Not applicable	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Nisswa	Nisswa	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Fire hall 6472	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Normanna	Duluth	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Fire hall 6472	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
North Mankato	North Mankato	Y	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Park lot behind Fire Sta. #62, 1625 Howard Dr.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
North St. Paul	North St. Paul	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	No. St. Paul Public Works, 2303 1st St. N.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
North Star Township	Duluth	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	7700 Pequeaway Ln Rd., Duluth	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Northfield	Northfield	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	City street shp., 1710 River Dr.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Northland	Capron	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Fire hall, 7271 Hwy. 53, Capron	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Northrop	Northrop	N	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	Behind fire hall, 211 N. Bridgman	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12
Northwood	Northwood	Y	X	X	X	Weekly	Monthly	Quarterly	Semi-Annually	Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	Sanitary Sewer	On-Site Septic	Ground	Other	City vacant lot at South & Rush Streets	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FFP	Class A-B HEX	Class A	Other	Y	X	X	X	X	Y	Y	0	2	3	0	1	5	12

TABLE 2
ALL MUNICIPAL FIRE DEPARTMENT QUESTIONNAIRE RESPONSES
October 15, 2008

Department	Location	Site in Source Water Assessment Area?	Foam Use Frequency For Fire Response:	Foam Use Frequency in Training:	Foam Use in Training:	Spent Foam Destination:	Other	Training Location	Types of Foam														Historical Use?	Current Use?	Site Notes	Annual Foam Usage				Water Wells Nearby: within 1/4 mile=3; within 1 mile=1; mile=2; No=0	WPA/ISMA site in WPA and/or within 1/4 mile=4; within 1 mile=3; Transitions=4; mile=1; mile=2; No=0	Overall Site Ranking							
									Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFFP	Class B A-B-FFP	Class A-B-HEX	Class A	Training Foam	Other	Foam Used in Training?							More than 200 Gallons	101-200 Gallons	26-100 Gallons	11-25 Gallons				7 Gallons or less						
																			Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP												Class B FFFP	Class B A-B-FFP	Class A-B-HEX	Class A	Training Foam	Other
1. 3M brand foam	2. Aerial Shear	3. Aerial Shear	4. Other Unspecified Aerial Foam product	5. Aerial Shear	6. Aerial Shear	7. Other Unspecified Aerial Foam product	8. National Foam product	9. National Foam product	10. HCT-500/AR	11. Procor Aerial Shear	12. Other Unspecified foam product																												
Oak Grove	Oak Grove	N	X	N	Y		Other	15000 Highline, 2nd HWY, city hall, 1 mile from fire into soccer fields.	7																														
Oxide	Oxide	N	X	N	Y		Ground	Fire stations at 6833 15th St. N. and 5000 Bradley Ave. N.	2																														
Oxide	Oxide	N	X	N	Y		Sanitary Sewer	111 N. 32 St.	2																														
Oxide	Oxide	Y	X	N	Y		Storm Sewer	Fire hall	2																														
Oxide	Oxide	N	X	N	Y		More than 10 gallons	Not specified	2																														
Oxide	Oxide	N	X	N	Y		5 to 10 gallons	Various sites, live fire training only.	3																														
Oxide	Oxide	N	X	N	Y		Less than 5 gallons	Various sites, airport, east on Hwy. 12, and Pro Auto, 647 Hwy. 12	7																														
Oxide	Oxide	N	X	N	Y		Occasionally	Various sites, live fire training only.	12																														
Oxide	Oxide	N	X	N	Y		Bi-Annually	South Maple St.	1																														
Oxide	Oxide	N	X	N	Y		Monthly	Fire hall, 4902	1																														
Oxide	Oxide	N	X	N	Y		Quarterly	Nature Av, 4547 Hwy. 100, Aurora	2																														
Oxide	Oxide	N	X	N	Y		Annually	Not specified	2																														
Oxide	Oxide	N	X	N	Y		Bi-Annually	City airport	2																														
Oxide	Oxide	N	X	N	Y		Occasionally	2nd Av, NW & 4th St	2																														
Oxide	Oxide	N	X	N	Y		Less than 5 gallons	Old elevator lot, NW Atlantic Av.	6																														
Oxide	Oxide	N	X	N	Y		5 to 10 gallons	Not applicable	2																														
Oxide	Oxide	N	X	N	Y		More than 10 gallons	Not applicable	2																														

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 October 15, 2008

Department	Location	Site in Source Water Assessment Area?	Foam Use Frequency For Fire Response:		Foam Use Frequency in Training?	Amount Foam Use in Training				Spent Foam Destination		Training Location	Types of Foam	Foam Used in Training?					Historical Use?	Site Notes	SITE RANKING CRITERIA			Overall Site Ranking												
			0-25% of Fires	25-50% of Fires		5 to 10 gallons	More than 10 gallons	On-site Septic	Sanitary Sewer	Storm Sewer	Other			Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF			Class B AR-FPF	Class A B-HEX	Class A		Training Foam	Other	Class E	AR	AFFF	Class B foam not used in training, site not ranked	Water Wells Nearby: within 1/4 mile-2; within 1/2 mile-1; mile-0	Surface Water: within 1/4 mile-3; within 1/2 mile-2; mile-1; mile-0	WPA/SMA: and/or site in WPA: within 1/4 mile-4; within 1/2 mile-3; within 1 mile-2; mile-0			
Peach Lake	Cloquet	N	X		Weekly		X				X	2779 Big Lake Rd	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Perham	Perham	N	X		Monthly		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Pickwick	Winona	N	X		Quarterly		X					Green Terrace School	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Pierz	Pierz	Y	X		Annually		X					Intersection of 25 and 271 Pleiz	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Plymouth	Plymouth	N	X		Weekly		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Pine City	Pine City	Y	X		Annually		X					Not specified	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Pine River	Pine River	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Pipestone	Pipestone	Y	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Plainview	Plainview	Y	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Plymouth	Plymouth	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Potter	Potter	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Preston	Preston	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Proctor	Proctor	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Prior Lake	Prior Lake	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Proctor	Proctor	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								
Ramsay	Ramsay	N	X		Annually		X					Various	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B AR-FPF	Class A B-HEX	Class A	Training Foam	Other			Class E	AR	AFFF	Class B foam not used in training, site not ranked								

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October 15, 2008

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								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?		Foam Quantities not specified, foam used in training not specified.	Foam not used in training. site not ranked.	Foam used in training. site not ranked.	Foam not used in training. site not ranked.	Class A foam use only. site not ranked.	Class B foam use only. site not ranked.	Class A foam use only. site not ranked.	Class B foam use only. site not ranked.	Water Wells Nearby: within 1/4 mile-3; within 1/2 mile-2; mile-1; mile-0		Surface Water Nearby: within 1/4 mile-3; within 1/2 mile-2; mile-1; mile-0	WPA/ISMA: and/or site in WPA: within 1/4 mile-4; within 1/2 mile-3; within 1 mile-2; mile-1; mile-0				
Randall		N	X	N	N	N	Let across street in the station (106 improved Dr.)	Class B AFFF														1	Y	Y	N	X	Y	Y	Y	N	0	2	0	3	0	3	4	12
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Randolph-Hampton		N	X	N	X	X	Various live burns.	Class B AFFF														4	Y	Y	N	X	Y	Y	Y	N	4	2	0	3	2	5	30	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Reel/Ving	Reel/Ving	N	X	N	X	X	Not applicable	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	2	N	X	X	2	3	5	15
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Reel/Ving	Wood Hills	N	X	N	X	X	316 Main St. E.	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	2	N	X	X	2	3	5	15
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Reel/Ving	Wood Hills	N	X	N	X	X	Main St. & Bryant. Av.	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	2	N	X	X	2	3	5	15
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Richfield		N	X	N	X	X	Richfield ice arena, 539 E. 68th St.	Class B AFFF														1	Y	Y	N	X	Y	Y	Y	N	1	N	X	X	2	5	30	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Richmond		N	X	N	X	X	Industrial rd. 3 lots west of Main & 181st Av. on the north side of Main.	Class B AFFF														1	Y	Y	N	X	Y	Y	Y	N	10	N	X	X	2	3	4	15
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Robbinsdale		N	X	N	X	X	Various	Class B AFFF														1	Y	Y	N	X	Y	Y	Y	N	8	2	1	5	3	5	25	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Rochester		N	X	N	X	X	2021 41st St. NW	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	8	2	1	5	3	5	25	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Rochester		N	X	N	X	X	Fire Sta. 1: S. Birch St., Fire Sta. 2: Silver Lake Dr. & 7th St. NE, Fire Sta. 3: 2755 2nd St. SW, Fire Sta. 4: 1676 41st St. NW	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	8	2	1	5	3	5	25	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Rogers	Collingsstone	N	X	N	X	X	Various locations, live burn training only.	Class B AFFF														7	Y	Y	N	X	Y	Y	Y	N	10	N	X	X	Y	Y	4	12
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							
Rose Creek		N	X	N	X	X	Fire station	Class B AFFF														2	Y	Y	N	X	Y	Y	Y	N	2	Y	Y	Y	Y	Y	12	
								Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FFPF	Class B A-B HFX	Class A	Other																							

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 October 15, 2008

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						On-Site Sewer	Sanitary Sewer		Storm Sewer	More than 10 gallons	5 to 10 gallons	Less than 5 gallons	Occasionally	Weekly	Monthly	Quarterly	Semi-Annually	Bi-Annually	Annually	Annual Foam Usage:					Water Wells Nearby: within 1/4 mile-2; within 1/2 mile-1; mile-0	Surface Water Nearby: within 1/4 mile-3; within 1/2 mile-2; mile-1; mile-0	WPA/SPA: site in WPA and/or within 1/4 mile-4; within 1/2 mile-3; mile-2; mile-1; mile-0											
																				Class B AFFF	Class B AR-AFFF	Class B Protein						Class B FFP		Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons
Reseau	Reseau	N	X	X	X	X	X	Reseau, Chimney	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Class A foam use only, site not ranked.	8	2	1	1	2	3	2	2	19			
Resseau	Reseau	N	X	X	X	X	X	Resseau, Field, Mill, Ave N	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Just switched to HCT 5-500 from historic use of AFFF and training foam. Historic training with AFF, likely 3M foam at some point.	0	0	0	0	0	0	0	0	0	0	0	
Resseau	Resseau	N	X	X	X	X	X	Not applicable	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Royalton	Royalton	N	X	X	X	X	X	Not Specified	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Rush City	Rush City	N	X	X	X	X	X	4700 Shannon Hwy	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam for fire only; foam type and quantity not specified.	0	0	0	0	0	0	0	0	0	0	0	
Rushford	Rushford	N	X	X	X	X	X	Open lot in industrial area, 400 ft. from Enterprise Drive	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Rushmore	Rushmore	N	X	X	X	X	X	City dump	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Class A foam use only, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Russell	Russell	N	X	X	X	X	X	Not applicable	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Sandstone	Sandstone	N	X	X	X	X	X	Fire hall, 114 Main Street	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	
Sandstone	Sandstone	N	X	X	X	X	X	Fire hall, 361 E. 320th Ave S.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	AFFE; AB type Angus also used 6% amount used "not much"; Class AB H-Ex Angus Foam Liquid Train with down soap with regular foam in years.	0	0	0	0	0	0	0	0	0	0	0	0
Sandstone	Sandstone	N	X	X	X	X	X	Fire hall, 220 4th Ave S.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Train with Down dish soap, other foam types not specified.	0	0	0	0	0	0	0	0	0	0	0	0
Sandstone	Sandstone	N	X	X	X	X	X	Down dish soap used in training at Sandstone High School, 1833 Cascade Rd.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Foam types not specified.	0	0	0	0	0	0	0	0	0	0	0	
Sandstone	Sandstone	N	X	X	X	X	X	Fire hall, 361 E. 320th St.	Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FFP	Class B FPPF	Class B A-F-FFP	Class B A-HEX	Class A	Training Foam	Other	Foam Used in Training?	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Current Use?	Historical Use?	Class B foam not used in training, site not ranked.	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 2
ALL MUNICIPAL FIRE DEPARTMENT QUESTIONNAIRE RESPONSES
October 15, 2008

Department	Location	Site in Source Water Assessment Area?	Foam Use Frequency For Fire Response:		Foam Use Frequency in Training:		Amount of Foam Use in Training:	Spent Foam Destination:		Training Location:	Types of Foam:											Annual Foam Usage:	Current Use?	Historic Use?	Site Notes:	Surface Water Nearby:			WPA/SMA site in WPA:														
			0-25% of Fires	25-50% of Fires	75-100% of Fires	CAFS Tank on Engine?		Weekly	Monthly		Quarterly	Semi-Annually	Bi-Annually	Occasionally	Less than 5 gallons	5 to 10 gallons	More than 10 gallons	Storm Sewer	On-Site Septic	Ground	Other					Class B AFFF	Class B AR-AFFF	Class B Protein	Class B FP	Class B FFP	Class B AR-FFP	Class B A-HEX	Class A	Other Training Foam	10 Gallons or less	26-100 Gallons	101-200 Gallons	More than 200 Gallons	Surface Water Nearby: within 1/4 mile-2; within 1/4 mile-3; within 1/4 mile-4; within 1/2 mile-1; within 1/2 mile-2; within 1/2 mile-3; within 1/2 mile-4	Kest Area: Active-1; Transition-1; Coverage-2; No=0	Water Wells Nearby: within 1/4 mile-1; within 1/4 mile-2; within 1/4 mile-3; within 1/4 mile-4	No=0	No=0
Granite	Clonet	N	X																																								
Schweizer	Schweizer	N		X																																							
Seasouth	Seasouth	N		X																																							
Shafter	Shafter	Y		X																																							
Shelbourn	Shelbourn	N		X																																							
Shelburn	Shelburn	Y		X																																							
Sica Area	Hibbing	N		X																																							
Silver Bay	Silver Bay	N		X																																							
Silver Lake	Silver Lake	Y		X																																							
Sleepy Eye	Sleepy Eye	N		X																																							
Solway	Solway	N		X																																							
Solway, Turp	Clonet	N		X																																							
South Bond Typ	Minneto	N		X																																							
South Haven	South Haven	N		X																																							
Spicer	Spicer	N		X																																							
Spring Grove	Spring Grove	N		X																																							
SBM (Spring Lake Park, Bielle (Municipal Vesp) Fire Dept.)	Spring Lake Park	N		X																																							
Spring Valley	Spring Valley	Y		X																																							
St. Anthony	St. Anthony	N		X																																							
St. Bonifacius	St. Bonifacius	N		X																																							
St. Charles	St. Charles	N		X																																							

STATE_02826857

TABLE 3
MUNICIPAL FIRE DEPARTMENTS WITH NO FIREFIGHTING FOAM USE
October 15, 2008

The following municipal fire departments in Minnesota indicated that they do not use firefighting foams:

Abercrombie	Haangard, Gonvick, MN	Minnetonka
Askov	Hayward	Mission Twp, Merrifield
Bear Creek		New Munich
Beaver Creek	Hovland	Perley-Lee Twp, Perley
Blomkest	Itasca	Sedan, Glenwood, MN
Brownsville	Kabetogama, Ray, MN	Skyline, Mankato, MN
*Canton	Kelsey	St. Leo
Culver	LaSalle	Sunburg
Delavan	Loman	Taunton
*Dexter	Louisburg	*Tintah
Elrosa	*Lowry	Tower
Emily	Mahnomen	Tracy
Eveleth	McKinley	Ulen
*Felton	Millerville, Brandon, MN	Viking
*Goodridge Area, Goodridge	Minnesota City	*Walters
		Wanamingo
*Callaway	*Granada	Hidden Valley, Minnesota City
*Halsted	*Ostrander	*Good Thunder

Notes:

*Site located in Source Water Assessment area.

Bolded departments submitted survey responses after Delta's report of June 30, 2008.

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TABLE 6
TRAINING SITES WITH 3M FOAM USE
October 15, 2008

Department	Training Location	SITE RANKING CRITERIA							OVERALL SITE RANKING
		Foam Type: 3M current or former use in training=8	Annual Class B Foam Usage in Training: 5 gal or less=2; 6 to 10 gal=4; >10 gal=6	Surface Water Nearby: within 1/4 mile=3; within 1 mile=1; No=0	Wetlands Nearby: within 1/4 mile=3; within 1 mile=1; No=0	Karst Area: Active=5; Transition=4; Covered=2; No=0	Water Wells Nearby: within 1/4 mile=3; within 1 mile=1; No=0	WPA/SWA: site in WPA and/or SWA=5; within 1/4 mile=4; within 1 mile=2; No=0	
Marathon Refinery	Refinery fire training grounds, St. Paul Park	8	6 (250 gals)	3	3	5	3	2	30
Flint Hills Pine Bend Refinery	Refinery fire training grounds, Rosemount	8	6 (300 gals)	1	1	4	3	0	23
MN Air National Guard 148th	Duluth International Airport ^(b)	8	6 (No foam used in training, up to 100 gals for response)	3	3	0	3	0	23 ^(b)
South Central College	1920 Lee Blvd., North Mankato	8 ^(a)	6 (up to 60 gals)	1	1	2	1	5	24
Metropolitan Airports Commission at Minneapolis/St. Paul International Airport	MSP	8	6 (up to 40 gals)	3	3	5	3	5	33
Former Wrenshall Refinery	Highway 1, Wrenshall	8 ^(a)	6	3	3	0	3	2	25 ^(a)
Hutchinson	205 3rd Avenue SE, Hutchinson	8	4	3	1	0	3	5	22
North St. Paul	North St. Paul Public Works building, 2303 1st Street N.	8	6 (up to 20 gals)	3	1	2	3	5	28
Fairmont	City shop park lot, 417 E. Margaret St., Fairmont	8	6 (up to 20 gals)	3	3	0	1	0	21
Marshall	Marshall Merit Center, 1001 W. Erie Rd.	8 ^(a)	6 (up to 20 gals)	3	3	0	1	0	21
St. Clair	City of St. Clair	8 ^(a)	6 (up to 20 gals)	3	1	2	3	0	23
Bemidji	Bemidji Municipal Airport	8	4 (5 to 10 gals)	3	3	0	3	5	26
Clearbrook	Tank farm on south edge of town.	8 ^(a)	4 (5 to 10 gals)	3	3	0	3	2	23
Linwood Twp	Behind fire station, 22870 Typo Creek Dr., Stacy	8	4 (5 to 10 gals)	3	3	0	3	2	23
St. Paul	1683 Energy Park Dr., St. Paul	8	4 (5 to 10 gals)	1	1	5	3	0	22
Perham	Near parking entrance of Prairie Winds Middle School	8 ^(a)	4 (5 to 10 gals)	1	1	0	3	5	22
Mankato	Fire Sta. #1, 300 Madison Ave., Mankato	8	4 (5 to 10 gals)	1	0	5	1	2	21
Fridley	North Metro Fire Training Center, 300 71st Ave. Fridley	8	2 (5 gals or less)	1	3	4	3	5	28
Preston	Fillmore County Fairgrounds, Fillmore St. & Cty. Hwy. 12, Preston	8	2 (5 gals or less)	3	3	5	3	4	28
Cottage Grove	Fire Station 2, 8641 80th St. S., Cottage Grove	8	2 (5 gals or less)	3	3	5	1	5	27
Kenyon	Fire station, 714 2nd St.	8	2 (5 gals or less)	3	1	5	3	5	27
Rochester	2021 41st St. NW, Rochester	8	2 (5 gals or less)	1	1	5	3	5	25
Northfield	City street shop, 1710 Riverview Drive.	8	2 (5 gals or less)	3	3	5	3	1	25
Claremont	Front of fire hall, Front St., Claremont	8	2 (5 gals or less)	1	0	4	3	5	23
Alexandria	Various, including VoTech, Magellan tank farm, live burns.	8 ^(a)	2 (5 gals or less)	3	1	0	3	5	22
Myrtle	Myrtle ball field, Myrtle	8 ^(a)	2 (5 gals or less)	1	0	5	1	5	22

**TABLE 6
TRAINING SITES WITH 3M FOAM USE
October 15, 2008**

Department	Training Location	SITE RANKING CRITERIA							OVERALL SITE RANKING
		Foam Type: 3M current or former use in training=8	Annual Class B Foam Usage in Training: 5 gal or less=2; 6 to 10 gal=4; >10 gal=6	Surface Water Nearby: within 1/4 mile=3; within 1 mile=1; No=0	Wetlands Nearby: within 1/4 mile=3; within 1 mile=1; No=0	Karst Area: Active=5; Transition=4; Covered=2; No=0	Water Wells Nearby: within 1/4 mile=3; within 1 mile=1; No=0	WPA/SWA: site in WPA and/or SWA=5; within 1/4 mile=4; within 1 mile=2; No=0	
Pierz	Intersection of 25 and 27, Pierz	8	2 (5 gals or less)	3	3	0	1	5	22
Crosslake	Joint City/County maintenance facility, 13870 Whipple.	8 ^(a)	2 (5 gals or less)	3	3	0	3	2	21
Minneapolis	25 37th Ave. NE, Minneapolis	8	2 (5 gals or less)	3	1	4	1	0	19
Rosemount	14700 Shannon Pkwy Loretto	8	2 (5 gals or less)	1	1	2	3	2	19
Loretto	259 Medina St. N., Loretto	8	2 (5 gals or less)	1	1	0	1	5	18
Lake Superior College	11501 Hwy. 23, Duluth	8	2 (5 gals or less)	3	3	0	1	0	17
Littlefork	Fire hall, McPherson & 3rd Av	8 ^(a)	2 (5 gals or less)	3	3	0	3	4	23
Montevideo	Fire station, 103 Canton, Montevideo	8	2 (5 gals or less)	3	3	0	1	0	17
Buffalo Lake	315 N. Main St., at Main & Church Sts., Buffalo Lake	8	2 (5 gals or less)	1	1	0	1	2	15

Notes:

- (a) Foam type or training use not specified, 3M foam use for training assumed
- (b) 3M foam not currently used in training, but currently used in fire response. Site ranked based on use of foam in fire response.
- (c) Ranking assumes maximal use of 3M foam in training exercises.

DELTA

APPENDIX A

Questionnaires Received Post-June 30th Report



Reval Post-Board

QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>ANSULite</u>	<u>Yes</u>	<u>5</u>	
Class B Alcohol-Resistant (AR)-AFFF				
Class B Protein				
Class B Fluoroprotein (FP)				
Class B Film-Forming Fluoroprotein (FFFP)				
Class B AR-FFFP				
Class A-B Hi Expansion Foam				
Class A	<u>SINU-EX</u>	<u>Yes</u>	<u>15</u>	
Training Foam				
Other				

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

JAY TREMBLAI TRAINING OFFICER

Name and Title

ALBORN FIRE DEPARTMENT

Fire Department

CHIEF - 218-345-6314 TRAINING OFFICER 218-345-6358

Phone Number

Date

ALBORNFIRE@AOL.COM OR BUSYBOY222@JUNO.COM 6-12-08

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Received
Post-Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

ALBROOK School 7427 SEVILLE Rd SAGINAW MN 55779 - Demonstration

ALBORN Fire Hall 6390 HWY #17 ALBORN MN 55702

TRAINING & Demonstration



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>douit know</u>	<u>Yes</u>	<u>10 or less</u>	<u>X</u>	<u>X</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>douit know</u>	<u>Yes</u>	<u>10+</u>	<u>X</u>	<u>X</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Dennis Stark, Fire Marshall Via Telephone

Name and Title

Alexandria F.D.

Fire Department

320-763-6488 9-3-08

Phone Number

Date

dstark@rea-aly.com

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes 3%
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): Depends on where

City has stormwater retention pond system.

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Masellan tank farm, some training there 4 years ago.
Host fire school ~ 3 yrs at tech school
5 yrs ago - on Highway, RV on fire.
use Class B foam -

No training at fire hall with foam.

1978 - tank at Williams hit by lightning. foam at Williams

OVER →



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9475 www.deltacnv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	X-3m? Believe it's 3m	No	25	X	X
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A	X	Yes	25	X	X
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

via telephone

Troy Zelnick Chief
Name and Title

Aubrey F.D.
Fire Department

507-674-3018
Phone Number

9-4-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe): Gravel Lot

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

varies - fire station country
101 W. main St Amboy

We foam Fall
we A & B

OVER ->



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Repeat Post Ret

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A Training Foam	<u>Argus</u>	<u>Yes</u>	<u>25 gallons</u>	<u>Yes</u>	<u>Yes</u>
Other	<u>N/A</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Brian Haas - Fire Chief
 Name and Title

Aspendale
 Fire Department

320-274-8466 8/11/08
 Phone Number Date

ASD@hahedalelink.net
 E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Read Post Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

All over, grassy areas & Blacktop

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>No-Nuver</u>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
<u>Class A</u> Training Foam	<u>Silv-Ex</u>	<u>Yes</u>	<u>210 gal</u>	<u>Yes</u>	<u>Yes</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Gerald Schwartz
Name and Title

Atwater Fire Dept
Fire Department

W 320-974-3373 9-22-08
Phone Number Date

E-Mail Address



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Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas:

Class A - Various locations
Don't use Class B foam

OVER ->





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>walsh brand</u>	_____	<u>5-10 gal</u>	<u>Yes</u>	<u>Yes</u>
	<u>↳ DNR-supplied</u>	_____	_____	_____	_____
Other?	<u>Green A+B sticks</u>	_____	_____	_____	_____
	<u>Have not used B yet</u>	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Karl Flier, Fire Chief

via telephone

Name and Title

Backus F.D.

Fire Department

218-947-4486

Phone Number

10-2-08
Date

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): when new nozzle - one time

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>X only</i>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

David Lien Jr

via phone nr

Name and Title

Barrett F.D.

Fire Department

320-528-2512

9-3-08

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Vice Phone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

only Class A foam used

OVER →



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QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Read Post Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<u>Angus</u>	<u>NO</u>	<u>-</u>	<u>yes</u>	<u>yes</u>
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	<u>SILVEX</u>	<u>NO</u>	<u>10-20</u>	<u>yes</u>	<u>yes</u>
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by: Richard E Bogart Fire Chief
 Name and Title
Blackduck Fire Dept
 Fire Department
218-835-4806 or 218-835-4548
 Phone Number Date
Bogarts@Blackduck.net 10 June 08
 E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Final
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

~~NO PLACE in PARTICULAR~~

NO ONE PLACE

OVER →



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Real Post-Report

QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____
Class A	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Name and Title

Brooklyn Center

Fire Department

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
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QUESTIONNAIRE
Firefighting Foam Use in Fire Training

(Revised Post RPT)

47

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
 No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
 No

4. How often is foam used in training exercises?

- Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

FIRE STATION #1 6250 Brooklyn Blvd - Brooklyn CA, MN
FIRE STATION #2 6500 Dupont Ave N. " " "

6/23/15 80



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training?	Amount Used	Currently Used?	Historically Used?
		Yes or No	Annually	Yes or No	Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	<u>Ausul (various)</u>	<u>No</u>	<u>25</u>	<u>Yes</u>	<u>_____</u>
		<u>last used 3 years ago</u>			
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>(various) Silu-Ex</u>	<u>No</u>	<u>20-25 gal</u>	_____	_____
Training Foam	<u>Yes</u>	<u>Yes</u>	_____	_____	_____
Other	<u>Dish soap</u>	<u>Yes</u>	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

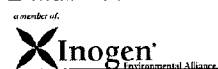
Deputy Chief Todd Seitz via telephone

Name and Title
Brooklyn Park F.D.

Fire Department
763-493-8026 9-25-08

Phone Number Date

E-Mail Address _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires *~10% of calls*
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Training foam or Dawn Dish soap

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Augus</u>	<u>No</u>	<u>~5</u>	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Augus</u>	<u>No</u>	<u>~5</u>	_____	_____

Other _____

may have used Silvex in the past 10+ years ago,

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

class A only

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Fire Chief Chuck Garin

Name and Title

Caledonia F.D.

Fire Department

w) 507-725-5000

Phone Number

7-24-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Vice Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

Both

No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

once / year

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

dish saqs

OVER →



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Rec'd Post-Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Keith Bernbach Chief

Name and Title

Callaway

Fire Department

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	?? maybe	No	0		
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam	Don't know				
Class A	X Branol	No	0		
Training Foam	X	Yes	410 gal		
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Errow Hensch Fire Chief

Name and Title

Campbell Fire Dept

Fire Department

218-630-5756

Phone Number

9-5-08

Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

Never *So far* 0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): Training foam

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

vacant lots - varies each time. Use training foam. Been over two years since last training w/ foam.

Never used it. Both A + B. Have on hand, OVER → have never had to use it.



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<i>Angus</i>	<input checked="" type="checkbox"/>	<i>Less than 5 gal</i>	
Class B Alcohol-Resistant (AR)-AFFF				
Class B Protein				
Class B Fluoroprotein (FP)				
Class B Film-Forming Fluoroprotein (FFFP)				
Class B AR-FFFP				
Class A-B Hi Expansion Foam				
Class A	<i>Angus</i>	<input checked="" type="checkbox"/>	<i>Less than 5 gal</i>	
Training Foam				
Other				

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

John C. Miller Chief
Name and Title

Cannon Falls
Fire Department

507-291-8643
Phone Number

CANNON FALLS FD @ Hotmail.com
E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
10/21
Rec'd*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Cannon Valley Fire grounds

Cannon Falls, MN



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)		Yes	210	Y	Y
Class B Alcohol-Resistant (AR)-AFFF	<i>Don't know what type of Class B</i>				
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	X	Yes	210	Y	Y
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Jeff Basinger, Fire Chief

Name and Title

Clearbrook Fire Dept

Fire Department

218-776-3144 (Clearbrook Collision Center) 9-8-08

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com

*Via telephone
WR*



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): on top of their tanks

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Pipelines - Class B use Pipeline Equipment
and Class A
↳ supplied by Emborage, Coke, M&V
Yes.
Emborage - Adj to City limits. South edge
of town. 3 tank farms.

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Revised
Post Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	<u>Silv-ex</u>	<u>Yes</u>	<u>less than 1 gallon</u>	<u>ourselves in a year</u>
Class A	_____	_____	_____	_____
Training Foam	<u>Switching to F500</u>	<u>So we meet Class A+B needs</u>	_____	_____
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Dale Hagertuen
Name and Title

Sec/Treas Assistant Chief
Fire Department

Clontarf Fire Dept.

Phone Number 320 843 3129 (Home) Date 8-23-08

E-Mail Address _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No *Foam Tank with inducer*

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): *Training w/ Benson Fire Dept*

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Mainly at training facility in Benson burning tires, car, training at house burn, etc



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Neued</u>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>not sur metro fire</u>	<u>Yes</u>	<u>5</u>	<u>Yes</u>	<u>Yes</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Ken Bakke Asst Fire Chief

via telephone

Name and Title

Cokato F.D.

Fire Department

320-286-2452

Phone Number

9-26-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*vica
telephone*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - **Proceed to Question 2**

No - **Sign the back of this form and return to Delta Consultants**

↳ Never

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes
 No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Various - live burns

OVER →



Born
Grand Rapids



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	Not sure brand.	No	< 5 gal	Yes	Yes
Class B Alcohol-Resistant (AR)-AFFF	same as other depts around, Grand Rapids, Born				
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	Not sure, Firetrac.	Yes	12-15 gal	Yes	Yes
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Ken Decoster

via telephone

Name and Title

Coleraine F.D.

Fire Department

218-259-3205

9-22-08

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

rice telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls? *Depends on fire*
 _____ 0-25% of fires _____ 25-50% of fires _____ 75-100% of fires
car = 0
house = 50%+

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes *one truck does, one doesn't*
- No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
- Semi-Annually Annually Bi-Annually
- Other (please specify): *occasionally.*

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A = end of training to coat burn,
old dump, past WWTP, Brush/compost.
car foam. area.

OVER→



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<i>Never</i>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>Auscil Silv-Ex</i>	<i>Yes</i>	<i>10-15 gal</i>	<i>Y</i>	<i>Y</i>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Mark Behr

Name and Title

Couger F.D.

Fire Department

507-265-3435

Phone Number

9-25-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

No - Sign the back of this form and return to Delta Consultants

by Newer

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

various Building Bars

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>No</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>no</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A	<u>wot sure</u>	<u>Yes</u>	<u>~10gal</u>	<u>Yes</u>	<u>Yes</u>
Training Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Arne Johnson
Name and Title

Cook Fire Dept
Fire Department

218-666-2216
Phone Number

9-24-08
Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - **Proceed to Question 2** *only*
 No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes
 No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): at live burns

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

at live fires, only

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	<u>3M</u>	_____	_____	_____	<u>X</u>
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Maurice Schaeherer chief

Name and Title

Dawson Fire Dept

Fire Department

320-769-2016 6-10-08

Phone Number

Date

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
Past Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

X Yes - Proceed to Question 2 - class A only
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

X 0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

X Yes - one
No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
Semi-Annually X Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

X Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic X Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Church park Lot
St. Bridget Church

OVER ->



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>3M</u>	<u>No</u>	<u>40 gal Not used over 15 years</u>	<u>↓</u>	<u>↓</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Silo Ex</u> <u>August</u>	<u>No</u>	<u>240 gal</u>	<u>✓</u>	<u>✓</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Jeff Swanson

Name and Title

Detroit Lakes

Fire Department

218-847-5658 → 2187

Phone Number

9-10-08

Date

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
- Semi-Annually Annually Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

No training in 24 years +

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): *~3x/year*

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

In front of Fire Hall, 4th Street. Cross Street alley, ~ center of town

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rodney
Post Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<i>3M Light Water</i>	<i>NO</i>	<i>Ø</i>	yes <i>yes</i>	<i>yes</i>
Class B Alcohol-Resistant (AR)-AFFF	<i>3M</i>	<i>no</i>	<i>Ø</i>	<i>yes</i>	yes
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>Silvex</i>	<i>yes</i>	<i>20 gal</i>	yes <i>yes</i>	<i>yes</i>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Peter R. Dane

Name and Title: *Chief of Training*

Fire Department: *Duluth Fire Dept* Date: *6-20-08*

Phone Number: *218-730-4396*

E-Mail Address: *pdane@duluthmn.gov*



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rawl
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

602 W. 2nd St

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>X only</i>	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Lee Johnson

Name and Title

Akeley Fire Chief - East Hubbard City Fire Protection

Fire Department

218-652-4618

9-3-08

Phone Number

Date

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via phone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A only

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	Not Sure Brand	Y	25 gal		
Class B Alcohol-Resistant (AR)-AFFF	not 3m. Old!				
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A	Not Sure Brand	Y	25 gal		
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Jason James Fire Chief. via telephone

Name and Title

Elysian F.D.

Fire Department

507-327-3071

Phone Number

Date

10-3-08

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

No - Sign the back of this form and return to Delta Consultants

Rarely use foam

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires

25-50% of fires

75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never

Weekly

Monthly

Quarterly

Semi-Annually

Annually

Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons

5 gallons

5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer

Sanitary Sewer

On-Site Septic

Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Fire hall, or vacant lot.
202. F main

OVER→



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	3m	Yes	25gal	Y	Y
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Pete Lacoursiere

via telephone

Name and Title

Erskine F.D.

Fire Department

w) 218-687-2727

Phone Number

9-22-08

Date

E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes *Getting new truck*
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): occasionally

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Have trained w/other depts, w/ Bruce Rhode (state coordinator).

used foam

Have trained at car fire, brush piles.

Not one specific training area.

OVER→



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Ansul 3%</u> <u>Pioneer Products</u>	<u>No</u>	<u>< 5</u> <u>not much in last 5 years</u>	<u>Y</u> <u>Y</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A Training Foam	<u>Silv-Ex</u> <u>Pioneer</u>	<u>_____</u>	<u>20-40</u>	<u>Y</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Tim Peetsch
Name and Title

Farmington
Fire Department

651-463-4771
Phone Number

9-23-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Train mostly with water. Train with foam to show CAF system.

High School Park lot or fire Sta. 1

3-5 gal / year

Have trained with Train foam or class A foam

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>30 years ago</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A	<u>Silu-Ex</u>	<u>Y</u>	<u>20-25</u>	<u>Y</u>	<u>Y</u>
Training Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Steve Sepp

Name and Title

Freuborn F.D.

Fire Department

507-863-2204

Phone Number

9-25-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone
30YRS ago

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

classf. *below*

OVER →





QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Rec'd
Post-Rep*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>SILV-EX</u>	<u>YES</u>	<u>20 GAL.</u>	<u>YES</u>	<u>YES</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

SCOTT OMERGA - CHIEF
Name and Title

GILBERT FIRE DEPT.
Fire Department

218-748-2218 July 1, 2008
Phone Number Date

N/A
E-Mail Address



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
Post Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

THE LAST TIME FOAM WAS USED IN TRAINING
WAS 24 YEARS AGO AT CITY OF GILBERT
RECYCLING AREA. INDIANA AVE E. AND SHERWOOD
FOREST DRIVE

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Tom Froehlich

Name and Title

Good Thunder Fire Dept

Fire Department

507-278-3730

Phone Number

9-23-08

Date

chief@northlife.net

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com

via email



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
[X] No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Blank lines for providing training location information.

OVER ->





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply. *4-5 gal*

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<i>Ausul</i>	<i>Yes</i>	<i>0</i>	<i>No</i>	<i>Yes</i>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<i>Silu-Ex</i>	<i>Yes</i>	<i>0</i>	<i>No</i>	<i>Yes</i>
Training Foam	_____	_____	_____	_____	_____
Other	<i>F-500</i>	<i>Yes</i>	<i>20 gal</i>	<i>Yes</i>	<i>No - As of Mar-2008</i>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Fire Chief Rick Baumbenek

Name and Title

Goodview F.D.

Fire Department

cell 507-312-0031

Phone Number

9-23-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?
 Yes - Proceed to Question 2 *used to use class A & class B now multi F-500-A/B, ~ march 2008*
 No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?
 0-25% of fires 25-50% of fires 75-100% of fires *every time there's a fire*

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)? *a fire*
 Yes
 No *20-gal tank - not compressed*

4. How often is foam used in training exercises?
 Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): _____

5. How much foam is used per training event?
 Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?
 Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.
at fire sta - across the street at
4140 W. 5th St., (Goodview)
604478
4879751.11

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Revised Post-Test

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

JD Goraczowski JO Jajocost Chief
Name and Title

Granada mn
Fire Department

507-447-2295 7/10/08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Handwritten signature: Road Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
[X] No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Blank lines for providing training location information.

OVER ->



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via phone wk

Questionnaire completed by:

_____ *Tony Wolff* _____ *Equipment Officer*

Name and Title

_____ *Halsstad Fire Dept* _____

Fire Department

_____ *218-456-2128* _____ *9-3-08*

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via Phone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

20 years - have had 2 cans of it, never touched it.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	5	_____	_____
Class A	Buy it. <u>Clarico X</u>	No	10-20 gal over 3 years.	_____	_____
Training Foam	_____	_____	incl. mutual aid → fire fire	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Mike Dall Fire Chief.

Name and Title

Hanley Falls F.D.

Fire Department

507-768-3570

Phone Number

9-3-08

Date

E-Mail Address

Inogen

5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - **Proceed to Question 2**

No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?
→ never used Class B, don't have it.

0-25% of fires
Class A

25-50% of fires

75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes *Induction System.*

No? *Electrical mixer*

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Ethanol plant, next town over, have their own foam.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Revised
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	NO	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	NO	_____	_____	_____
Class B Protein	_____	NO	_____	_____	_____
Class B Fluoroprotein (FP)	_____	NO	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	NO	_____	_____	_____
Class B AR-FFFP	_____	NO	_____	_____	_____
Class A-B Hi Expansion Foam	_____	NO	_____	_____	_____
Class A	Angus	NO	10 gal	Angus	Angus
Training Foam	_____	NO	_____	_____	_____
Other	_____	NO	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Tim Cropper Asst chief & Training Officer

Name and Title

Harris Vol fire Dept

Fire Department

651-674-0251

Phone Number

Date

timcropper8303@yahoo

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): Do not use during training

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Training takes place at HVFD Hall
We do not use foam for training.
The foam we do use is for car fires
About 35% of the time & structure
fires About 50% depending on size
and scope this can fluctuate

OVER →



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<i>no name</i>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<i>varies</i>	<i>no</i>	<i>25-40 gal</i>	<i>yes</i>	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Curt Miner
 Name and Title _____
Hayfield Fire Dept
 Fire Department _____
507-951-2109 *9-22-09*
 Phone Number _____ Date _____

via telephone

E-Mail Address _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - **Proceed to Question 2**
 No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<i>X Don't know brand</i>	<i>Yes</i>	<i>25 gal</i>	<i>X</i>	<i>X</i>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

mike Smart Asst Fire Chief via phone
WR

Name and Title

Hendrey Fire Dept

Fire Department

work: *218-861-6222*

Phone Number

9-3-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

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QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No *Portable foam educator - Class A.*

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): *varies*

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A only. Various sites

Portals

No use Class B foam

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Zero
Past Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)				
Class B Alcohol-Resistant (AR)-AFFF	<i>ANGUS 3/6%</i>	<i>NO</i>		
Class B Protein				
Class B Fluoroprotein (FP)				
Class B Film-Forming Fluoroprotein (FFFP)				
Class B AR-FFFP				
Class A-B Hi Expansion Foam				
Class A Training Foam	<i>ANGUS</i>	<i>YES</i>	<i>< 5gals</i>	<i>car fires</i>
Other				

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Chad Diemer *Fire Chief*
Name and Title

HEWON LAKE
Fire Department

507-793-2381 *5-12-08*
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Around fire hall - 1111 2nd Ave - use very little foam
as a little goes a long way at 0.1-1%





QUESTIONNAIRE
Firefighting Foam Use in Fire Training

*Final
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Jersey Foster Treasurer
 Name and Title

Hidden Valley Fire - MN City, MN 55959
 Fire Department

507-454-1114 June 23, 2008
 Phone Number Date

E-Mail Address



Jim Stockinger

5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - **Proceed to Question 2**

No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	30+ years ago				
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A	Silv-ex	Y	20-25	Y	Y
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Steve Seipp

Name and Title

Hollandale F.D.

Fire Department

507-863-2204

Phone Number

9-25-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone
30 yrs ago

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A *various*

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	Angus universal + 3-688		0	on hand, have never used in 32 year s.	
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A					
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Tom. Pasel Firefighter - medic
Name and Title

Isanti F.D.
Fire Department

763-444-8019 9-22-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

_____ 0-25% of fires _____ 25-50% of fires _____ 75-100% of fires

Never has been

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- _____ Yes
- _____ No

4. How often is foam used in training exercises?

_____ Never _____ Weekly _____ Monthly _____ Quarterly

_____ Semi-Annually _____ Annually _____ Bi-Annually

Other (please specify): *every two years*

5. How much foam is used per training event?

- Less than 5 gallons _____ 5 gallons _____ 5 to 10 gallons
- _____ More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

_____ Storm Sewer _____ Sanitary Sewer _____ On-Site Septic _____ Ground

_____ Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Have foam, haven't used it.

2 stations. every two year

No discharge of foam. Classroom only.

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Lucius</u>	<u>Yes</u>	<u>1000 Gallons</u>	<u>Yes</u>	<u>Yes</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Name and Title

Jordan F.D.

Fire Department

952-492-2535

Phone Number

9-10-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Industrial Park - Grevel
↳ Irvine Industrial Dr. west side

Class Army

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Nuver</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A Training Foam	<u>Silvex</u>	<u>Yes</u>	<u>12-15 5 gal 100's</u>	<u>Yes</u>	<u>Yes</u>
Other	<u>Coax</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Greg Nollhaber, Fire Chief
Name and Title

Kelliher F.D.
Fire Department

cell-218-368-9700 10-14-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
 - 25-50% of fires
 - 75-100% of fires
- 80% of*

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Run foam thru truck, flush it out.

Some discharge.

Fire house, grassy area, behind house

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
99% Class B Aqueous Film-Forming Foam (AFFF)	varies, mostly 3M	Yes	20 100 gal.	Y	Y
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
100% Class A Training Foam	varies	Yes	25	Y	Y
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Doug Noah

Name and Title

Kenyon F.D.

Fire Department

507-838-9657

Phone Number

9-22-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Vice telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

make sure it comes out, then use water. Use very little foam at station.

*501206.91
4902119*

OVER →





QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Level
Post-Test*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Silv-ex</u>	<u>Yes</u>	<u>5gal</u>	<u>Yes</u>	<u>No</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Tore Ostland Secretary
Name and Title

Kilkenny Fire Department
Fire Department

(507) 595-3451 6/16/08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rough
Post Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	X - DNR supplied	No	10-15	yes	yes
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

John Gohmann F.
Name and Title

Kimball F.D.
Fire Department

cell - 320-249-2227
Phone Number

9-4-08
Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7441 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
- Semi-Annually Annually Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

A only - no train w/ foam

OVER →





QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Review Post-Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Scott Van Deert Sec.

Name and Title
Lafayette Fire Dept.

Fire Department
507-276-4425 7-21-08

Phone Number Date
scott.vandeert@lafayettefire.com

E-Mail Address



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
last Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

We have Not trained with Foam In A long time.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<i>August 3-co</i>	<i>Yes</i>	<i>20 gal</i>	<i>Y</i>	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>Silv-Ex</i>	<i>Yes</i>	<i>100 gal.</i>	<i>Y</i>	_____
Other	_____	_____	_____	_____	_____

Rarely used in training

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Tim Beehke
Name and Title

Lake Johanna - Shoreview
Fire Department

651-481-7024
Phone Number

9-9-08
Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7441 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2 *Both. Primarily*
 No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires
60x/year Car + Structure Fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes
 No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually
 Other (please specify): _____

5. How much foam is used per training event? *4 stations.*

Less than 5 gallons 5 gallons 5 to 10 gallons
 More than 10 gallons (please specify): *~ 40 gal.*

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
 Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

varies, mostly at Station 3
5545 Lexington Ave.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Not sure Brand. No</u>	_____	<u>< 5 gal</u>	<u>Yes</u>	<u>Yes</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Ross Whitman

Name and Title

Lake Lillian

Fire Department

320-664-4126

Phone Number

9-24-08

Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

carry can't really recall best time used it - 2003

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Not in last 5 years. We water & dish soap to simulate foam use.

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<i>not sure brand</i>	<i>No</i>	<i>0</i>	<i>on hand, not used</i>	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Brett Reuser

Name and Title

Lake Park F.D.

Fire Department

W) 218-238-5109

Phone Number

10-1-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

only

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

Never has been used in 5 yrs on dept.

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No
- Not Sure*

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>don't know</u>	<u>Yes</u>	<u>don't know</u>	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>don't know</u>	<u>Yes</u>	<u>don't know</u>	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Chief Scott Nelson

Name and Title

Lakeville F.D.

Fire Department

952-985-4701 9-11-08

Phone Number

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- X Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- X 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
X No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
X Other (please specify): every other year

5. How much foam is used per training event?

- X Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- X Storm Sewer Sanitary Sewer On-Site Septic X Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

No one place - various

OVER ->



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	X Don't know brand	X No	< 20 gal total		
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	X Don't know brand	X No	< 20 gal total		
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Rick Doleman

Name and Title

LeRoy F.D.

Fire Department

w) 507-324-5242

Phone Number

9-10-08

Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Level
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	<i>x</i>	<i>x</i>	<i>2 gallon</i>	<i>2 gallon</i>	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Andy Greer Fire Chief

 Name and Title

Lewisville

 Fire Department

507-435-4645

 Phone Number Date

Andygreer@yahoo.com

 E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Review
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

In front of fire hall driveway, then All trucks are emptied of water to Dilute Foam

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires *once/month*
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground *Grass*
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Civic Arena, playgrounds, industrial park

various locations for training. mostly train w/ training foam.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	<i>Not Sure Brand</i> Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<i>X</i>	<i>Yes</i>	<i>~ 5 gal</i>	<i>not sure brand</i>	<i>3m</i>
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<i>X</i>	<i>Yes</i>	<i>20-30 gal</i>	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Don Deutsch Fire Chief

Name and Title

Luverne F.D.

Fire Department

507-283-9141 (work)

Phone Number

Date

9-9-08

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- X Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

Class A 0-25% of fires 25-50% of fires 75-100% of fires

Rarely - Class B - ethanol

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
X No

4. How often is foam used in training exercises?

Never Weekly Monthly X Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

Less than 5 gallons X 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Barren pan - three days - 8 1/2 mile Luvon, Hwy 75
city pick it up w/ payloaders + grease east side

OVER ->





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used In Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>silv-ex</u>	<u>yes</u>	<u>2 1/2 gal</u>	<u>yes</u>	<u>yes</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Steve Lamont Asst. Chief
Name and Title

Madison Lake Fire
Fire Department

507 381-1228 9-24-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com

verified



**QUESTION
Firefighting Foam Us**

*Attn: Nancy
Rodning
2 pages*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Tomahawk lane - Hwy 60 west to Tomahawk lane
June 2008

OVER→



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<i>No Class B ever</i>				
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	<i>not sure brand</i>	<i>No</i>	<i>25 gal</i>	<i>Yes</i>	<i>Yes</i>
Other	<i>Have foam on hand, haven't used in a long time.</i>				

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Fire Chief Richard Wickmann
Name and Title

Manchester F.D.
Fire Department

507-826-3101 Phone Number *9-22-08* Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never
Weekly
Monthly
Quarterly
Semi-Annually
Annually
Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons
5 gallons
5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer
Sanitary Sewer
On-Site Septic
Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Spray with water only in training. At various locations

OVER ->



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	<u>A + B Slicks</u>	<u>Yes</u>	<u>3-4 last 1/2 years</u>	<u>Y</u>	<u>N</u>
	<u>Previous POK foam</u>				<u>Yes</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Chris Langworthy
Name and Title

Mapleton F.D.
Fire Department

h) 507-524-3341 9-23-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

class A + B Aflks

No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires

25-50% of fires

75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never

Weekly

Monthly

Quarterly

Semi-Annually

Annually

Bi-Annually

Other (please specify): *twice in last 1 1/2 year*

5. How much foam is used per training event?

Less than 5 gallons

5 gallons

5 to 10 gallons

More than 10 gallons (please specify): *1/2 stick*

6. In training, where does the spent foam go?

Storm Sewer

Sanitary Sewer

On-Site Septic

Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

City Street, Fire 103 3rd Ave NE

423 391.02

4864 319.73

OVER →



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STATE_02826998

2233.0186



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	3m-	Yes	20 gal	Yes	Yes
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Steve Lukin Fire Chief

via telephone

Name and Title

Maplewood

Fire Department

651-249-2800

Phone Number

9-5-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

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QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A only *all over city -*
various sites

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

Final Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	X	X	2 gals.	NO	_____
Training Foam	Same	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

_____ *_____ by June 1, 2008 in the enclosed stamped, self-addressed envelope.*

Questionnaire completed by:

Gail Lanyk - Chief

Name and Title

McDavitt Vol. Fire & Rescue

Fire Department

L-(218) 744-5677

Phone Number

05-28-08

Date

gails1@north.kc.com

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

9042 Hwy # 27 in the parking lot of our Fire Department. Jim Minnesota 55738

OVER →



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Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>Angus</u>	<u>No</u>	<u>25</u>	<u>on hand</u>	<u>No</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Angus</u> <u>x</u>	<u>Yes</u> <u>Yes</u>	<u>25</u> <u>25</u>	<u>Yes</u> <u>Yes</u>	<u>Yes</u> <u>Yes</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Chief Rick Hager
Name and Title

Mesa Park F.D.
Fire Department

507-455-2866
Phone Number

9-11-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires 25-50% of fires 75-100% of fires
- Class B - not used in 15-20 years* *Class A - 1 time in*

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
- Semi-Annually Annually Bi-Annually
- Other (please specify): 1/3 yr, Class A foam

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

train with class A foam or training foam
Park lot - station
408 2nd Av SE

OVER→



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Read back-report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<u>3M</u>	<u>NO</u>	<u>5-20 gal</u>	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Inogen Eckhart?</u>	<u>NO</u> <u>yes</u>	<u>25-50 gal</u>	<u>no gal every other year</u>	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Name and Title: DAVE DREGLAR - Training officer

Fire Department: Mendota Hgts F.D.

Phone Number: 651-486-4774 Date: 6/16/08

E-Mail Address: _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Revised
Feb 2007*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): one every other year or so

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Woolley F.D. parking lot.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Level
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<i>Chemguard</i>	<i>yes</i>	<i>5 gal</i>	<i>yes</i>	<i>yes</i>
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	<i>Chemguard</i>	<i>yes</i>	<i>5 gal</i>	<i>yes</i>	<i>yes</i>
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by

Bruce Roeck
Name and Title

Mentor Fire Dept.
Fire Department

218-686-7233
Phone Number

broed@gutel.com *6/11/08*
E-Mail Address Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
back Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Various Acquired Structures

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post
Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Current Use or Historic Use?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<u>ANSULITE 3X3</u>	_____	<u>0-10 GALL</u>	<u>HISTORIC</u>
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____
Class A	<u>SIKV-EX</u>	<u>YES</u>	<u>30</u>	<u>CURRENT</u>
Training Foam	_____	_____	_____	_____
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

CRAIG BILLINGS FIRE CHIEF

Name and Title

MILACA FIRE DEPT.

Fire Department

320 983 3465

Phone Number

Date

firechief@milacacity.com 5/5/08

E-Mail Address



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Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Review Post-Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

LIVE STRUCTURE BURNS - VARIOUS LOCATIONS





QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	ProTec sticks	No	<20	✓	?
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	Angus Hi-Combat	Yes	60-70 ↳ large flag fire	✓	✓
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Steve Jaeger Fire Chief

Name and Title

Mouficeles F.D.

Fire Department

763-238-5350

Phone Number

9-10-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
Class B - hardly ever
Class A 25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe): Depends

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Park lots - various
visible to public

OVER ->



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	Never used, never trained. 35 gal on hand. Universal Gold. Annulite				
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	National. SilverEx	Yes No No	~20 gal	Yes No	No Yes
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Gene Anderson, Fire Chief.
Name and Title

Mora F.T.
Fire Department

320-679-1511
Phone Number

9-9-08
Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

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QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

Class A only

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Bought truck and foam from Floriole Dept a few years ago. Came with Class A + Class B foam. Never used Class B foam, but have on hand.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>no</u>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Don't know.</u>	<u>Yes</u>	<u>Very Little</u>	<u>Yes</u>	<u>Yes</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Steve VanLith
Name and Title

New Germany F.D.
Fire Department

W) 952-353-2571
Phone Number

9-24-08
Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

No Please
only

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

park lot by City School State Ave
Park St.

OVER ->



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Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Rec'd Post-Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____
Class A	<u>SILV-BX</u>	<u>YES</u>	<u>5 GAL</u>	<u>CURRENT</u>
Training Foam	_____	_____	_____	_____
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

_____ JOHN BOUTIN

Name and Title

_____ WONNAMA VFD

Fire Department

_____ 258-535-1848 _____ 5/22/08

Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Fire Hall
6472 FRENCH RIVER RD
DOROTHY 55804



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____
Class A Training Foam	<u>CherGuard</u>	<u>yes</u>	<u>10gal</u>	<u>New-</u>
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

GARY MANTAY chief

Name and Title

NORTH STAR FIRE

Fire Department

218-525-4849 _____

Phone Number

Date

g.mantay@cpinternet.com

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Review
Post Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

7700 PEQUAYWAN LK. RD
DULUTH MN 55803



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Hi Combat</u>	<u>Yes</u>	<u>~ 5 gal</u>	<u>Yes</u>	<u>Yes</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Brent Aretz

via telephone

Name and Title

Norwood F.D.

Fire Department

W) 952-467-2797

Phone Number

9-23-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls? ??

- 0-25% of fires
 - 25-50% of fires
 - 75-100% of fires
- 100% 10/gal 2yr*

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

City property South St + Brush St.

Vacant lot.

426573.08

4957440.52

OVER →



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 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Review Post Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Silverx</u>	<u>X</u>	<u>100gals</u>	<u>60gal</u>	<u>0</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Doug Welinski OFD Treasurer
Name and Title

Ogilvie
Fire Department

320-272-4197 7-7-08
Phone Number Date

None
E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Final
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OFD fire hall

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>don't know</u> <u>AFFF in old pumper truck, haven't used in many years</u>	<u>No</u>	<u>0</u>	<u>available</u>	<u>Yes</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Silv-Ex</u> <u>Concrete white</u>	<u>..</u>	<u>15-20 gal</u> <u>depends on fire.</u>	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Mark Powerclean
Name and Title

Osakis F.D
Fire Department

w) 320-859-2290
Phone Number

via telephone

9-10-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7431 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): *less than annually*

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

House fire - training, No non-live fire training

Old Pumper truck has some AFFF, don't know type - Many years since used.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Mark Leuz
Name and Title

Ostrander Fire Dept
Fire Department

507-657-2505 9-25-08
Phone Number Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Vice Telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

No - Sign the back of this form and return to Delta Consultants

Not used foam in 6 years & since Chief is on force.

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires

25-50% of fires

75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never

Weekly

Monthly

Quarterly

Semi-Annually

Annually

Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons

5 gallons

5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer

Sanitary Sewer

On-Site Septic

Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →





QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	<i>might be 3M</i>	<i>no</i>	<i>Rarely used, could go years.</i>	<i>Y</i>	<i>Y</i>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>likely 3M.</i>	<i>no</i>	<i>50 gal</i>	<i>Y</i>	<i>Y</i>
Other	<i>Yes</i>	<i>Yes</i>	_____	<i>Y</i>	<i>Y</i>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 19, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Mike Johnson

Name and Title

Dwainna F. D.

Fire Department

507-444-2454

Phone Number

9-2208

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*via
teleshone*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

Class A - ~1/4 Class B - rarely, rarely

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): *~ 2 years*

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Training Foam. Never use or used Class B foam in training, too expensive

OVER→



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Review Post-Fpt

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	X	_____	X	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by: Mary Schmidt - Fire Chief
 Name and Title
Perham Fire Dept
 Fire Department
218-346-4402 6-18-08
 Phone Number Date
fire@cityofperham.com
 E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Revised
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Near parking entrance of Prairie Winds middle school in Kenosha

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>Ausul</u> <u>6</u>	No <u>Yes</u>	<u>420 gpl</u>	<input type="checkbox"/>	<input type="checkbox"/>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Ausul</u>	<u>no</u>	<u>450 gpl</u>	<input type="checkbox"/>	<input type="checkbox"/>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Probably used other Brands.

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Rick Kline

Name and Title

Plymouth F.D.

Fire Department

763-509-5121

Phone Number

9-10-08

Date

via telephone

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): 2-3/year

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Stations - 1) 13250 City Rd G 3) 3300 Dunkirk Ln
2) 12000 Old Rector Rd
Don't flow foam more for system set-up, make sure
know how to connect everything up. Don't
set up burner pan, for example, no foam extinguish
training

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Review
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<i>Silva-Ex</i>	<i>X</i>	<i>10gal</i>	<i>X</i>	<i>X</i>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Brad Varpness Chief
Name and Title

Renville
Fire Department

320-329-3196
Phone Number

16 Jun 08
Date

Brad.Varpness@Kibbleeq.com
E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Record
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Main Street & Bryant Ave
2nd ST & BRYANT AVE
Renwick MN 56284

OVER →



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	Ausul 3m - historical use	N Y	10 gal 25 ..	Yes no	Yes
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A	Silo-Ex	N	50 gal	Yes	
Training Foam	Nat'l	Y		Yes	
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

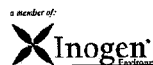
Brad Fire Chief Brad Sveum
Name and Title

Richfield F.D.
Fire Department

612-243-4502
Phone Number

9-9-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

Class B 0-25% of fires 25-50% of fires 75-100% of fires
Class A ~50% ~~Class~~

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly
 Semi-Annually Annually Bi-Annually

Other (please specify): *every couple weeks - every other week, cover all shift.*

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): *30-40 gal per event.*

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

ice arena - Richfield. 636 E. 66th St
Trinity Academy

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply. *12 pairs total*

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<i>3M Ansulite</i>	<i>Yes</i>	<i>60-90 gal</i>		
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A	<i>3M Silv Ex</i>	<i>No</i>	<i>60-90 gal</i>		
Training Foam					
Other	<i>#500 - just start using</i>				

13 bags of water

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Fire Chief Chuck Merten
Name and Title

Richmond F.D.
Fire Department

w/ 320-597-2214
Phone Number

9-10-08
Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires *50-60%*
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground to *catch pond.*
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Fire house - main r 791 st Ave

industrial site 3rd Lot to W, North side on main

Fire in town, call county *382469.71*

5034541.88

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	August	No	0	on hand	Y
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	August - Hi Combat	Yes	not sure	Y	Y
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152, or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Brad Feist

Name and Title

Rogers Fire Dept.

Fire Department

763-428-3500

Phone Number

9-10-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7444 Fax: 651-639-9473 www.deltaenv.com

via telephone



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Yes - Proceed to Question 2

No - Sign the back of this form and return to Delta Consultants

Trucks carry Class A.
Have Class B can't remember last time it was used.

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires

25-50% of fires

75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

Yes

No

4. How often is foam used in training exercises?

Never

Weekly

Monthly

Quarterly

Semi-Annually

Annually

Bi-Annually

Other (please specify): Rarely. Not in many years.

5. How much foam is used per training event?

Less than 5 gallons

5 gallons

5 to 10 gallons

More than 10 gallons (please specify): Depends on size

6. In training, where does the spent foam go?

Storm Sewer

Sanitary Sewer

On-Site Septic

Ground

Other (please describe): Depends on size

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Trucks carry Class A.
Class B - can't remember last time Class B
Training built on house sites.

OVER →



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STATE_02827042

2233.0230



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used? Yes or No	Historically Used? Yes or No
Class B Aqueous Film-Forming Foam (AFFF)	<i>Amsul Firestorm</i>	<input type="checkbox"/>	<i>25</i>	<i>Y</i>	<i>Y</i>
Class B Alcohol-Resistant (AR)-AFFF	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class B Protein	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class B Fluoroprotein (FP)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class B Film-Forming Fluoroprotein (FFFP)	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class B AR-FFFP	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class A-B Hi Expansion Foam	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Class A	<i>Amsul Silv-Ex</i>	<input type="checkbox"/>	<i>25</i>	<i>Y</i>	<i>Y</i>
Training Foam	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>
Other	_____	<input type="checkbox"/>	_____	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Kurt

Name and Title

Schafer F.D.

Fire Department

651-257-4753

Phone Number

Date

9-27-08

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Class A & B *Various*

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	Angus - 3%	Yes ^{no}	20 gal	Yes	Yes
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A Training Foam	Angus	Yes	~ 50 gal	Yes	Yes
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Rick Coleman

Name and Title

Shakopee F.D.

Fire Department

952-233-9300

Phone Number

9-10-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com

via telephone



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2 *Both*
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires *Class A - once / week*
- 25-50% of fires *B - every 3 mos*
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Fire Station *Clare County*

Village Dr

OVER →





QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Rec'd Post-Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Silvex</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Training Foam	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Troy Lenge Chief
Name and Title

Spring Valley
Fire Department

507 346-2150 _____
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): New truck have not used much

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>no</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Protein	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Fluoroprotein (FP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B Film-Forming Fluoroprotein (FFFP)	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class B AR-FFFP	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>
Class A-B Hi Expansion Foam	<u>not sure brand</u>	<u>Yes</u>	<u>~ 5 gal</u>	<u>Y</u>	<u>Y</u>
Class A Training Foam	<u>not sure brand</u>	<u>Yes</u>	<u>_____</u>	<u>Y</u>	<u>Y</u>
Other	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>	<u>_____</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Travis Ryder

Name and Title

St. Hilaire F.D.

Fire Department

218-964-5280

Phone Number

9-30-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
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View telephone



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Been a while, use training foam, & class A
Various locations, city,

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Revised
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>TEAM T233</u>	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>Chemguard</u>	<u>Yes</u>	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Kevin Sundry Chief
Name and Title

Stephen Volz
Fire Department

218-478-4141 6-12-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Read
Post-report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Various

OVER →



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Rec'd Post-Rec
QUESTIONNAIRE
Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Current Use or Historic Use?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____
<input checked="" type="checkbox"/> Class A Training Foam	Silvex	yes	25gal	unk.
Other	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Daniel Peterson Sect.

Name and Title

Sturgeon Lake

Fire Department

(218) 372 4124 5-01-08

Phone Number

Date

df.peterson@frontier.net.net

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

out skirts of Sturgeon Lake city park.
Market street
Sturgeon Lake MN 55783



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Rec'd
Dist
Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>ANSULITE ARC</u>	<u>NO</u>	<u>VARIES</u>	<u>YES</u>	<u>NO</u>
Class B Alcohol-Resistant (AR)-AFFF	<u>3M 3%/6%</u>	<u>NO</u>	<u>VARIES</u>	<u>YES</u>	<u>YES</u>
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A Training Foam	<u>SILV-EX</u>	<u>YES</u>	<u>VARIES</u>	<u>YES</u>	<u>YES</u>
Other	<u>ANSUL TRAINING</u>	<u>YES</u>	<u>N/A</u>	<u>YES</u>	<u>NO</u>

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

TROY J. WALSH / CAPTAIN - 4
Name and Title

VICTORIA FIRE DEPARTMENT
Fire Department

952-443-404210 10-30-08
Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Rec'd
Post-Report*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually *ONCE A YEAR!*
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

VICTORIA FIRE USE'S FOAM ON TRAINING BURNS, AND
THESE ARE AT VARIOUS LOCATIONS. VICTORIA FIRE DOES NOT
TRY TO USE FOAM ON RETULAR PUMP TRAINING BECAUSE
OF LOCATIONS. ACTUAL FIRE CALLS WILL VARY ON THE USE
OF FOAM

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	3M	Yes	~89 gal	Yes	Yes
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A					
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Mike

Name and Title

Wells Fire Dept

Fire Department

507-553-5415

Phone Number

9-9-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA

Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

Class B

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

various -

OVER →



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Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltainv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used **now and in the past** by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used? Yes or No</u>	<u>Historically Used? Yes or No</u>
Class B Aqueous Film-Forming Foam (AFFF)	<u>Ausulite</u>	<u>Yes</u>	<u>25 gal</u>	<u>Yes</u>	<u>Yes</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Silv-Ex</u>	<u>Yes</u>	<u>10-20 gal</u>	<u>Yes</u>	<u>Yes</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by September 30, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Bob Klapperich, Asst. Chief

via telephone

Name and Title

West Concord

Fire Department

507-527-2170

Phone Number

9-30-08

Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Various locations. In city spent foam would go to storm sewer. In country spent foam would go to the ground.

OVER →



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QUESTIONNAIRE Firefighting Foam Use in Fire Training

*Revised
10/15/07
Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>Silvex</u>	<u>N</u>	<u>2 gals.</u>	<u>2 gals.</u>	
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam					
Class A					
Training Foam					
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Tim Prachar Chief

Name and Title

Willow River Fire Dept.

Fire Department

218-372-3733 6-30-08

Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Rec'd Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Final Post Report

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	no	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	no	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Steve Joens chief
 Name and Title
Wilmont Fire Dept
 Fire Department
507-926-5235 6-23-08
 Phone Number Date

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

*David
Hart*

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Did not use

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

*Revised
Post-Report*

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	_____	_____	_____	_____	_____
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Todd Enges
Name and Title

Winnebago Fire Department
Fire Department

507-893-3515 5-28-08
Phone Number Date

Winnebago Fire @ City of Winnebago.org
E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Review Post-Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- X Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- X 0-25% of fires
25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
X No

4. How often is foam used in training exercises?

- Never Weekly Monthly Quarterly
Semi-Annually Annually Bi-Annually
X Other (please specify): Rarely used. Once every Three years.

5. How much foam is used per training event?

- X Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic X Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

140 Main St. S. Winnebago MN 56098

OVER ->



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

<u>Type of Foam</u>	<u>Brand of Foam</u>	<u>Used in Training? Yes or No</u>	<u>Amount Used Annually</u>	<u>Currently Used?</u>	<u>Historically Used?</u>
Class B Aqueous Film-Forming Foam (AFFF)	_____	_____	_____	_____	_____
Class B Alcohol-Resistant (AR)-AFFF	<u>National</u> <u>Gold</u>	<u>No</u> <u>— haven't had to use it yet</u>	<u>0</u>	<u>Yes</u>	<u>Yes</u>
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>Silv-ex</u>	<u>Yes</u>	<u>45 gal</u>	<u>Yes</u>	<u>Yes</u>
Training Foam	_____	_____	_____	_____	_____
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

Fire Chief Mike Trebrish via telephone

Name and Title Winthrop

Fire Department W) 507-647-2514 9-12-08

Phone Number _____ Date _____

E-Mail Address _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

AR-AFFF

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

train w/ Class A only.

Blacktop lot at fire hall 3rd main St.

ethanol plant, so stock AR-AFFF

OVER →



QUESTIONNAIRE

Firefighting Foam Use in Fire Training

Review after Rpt

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Current Use or Historic Use?
Class B Aqueous Film-Forming Foam (AFFF)	SILV-EX	X	less than 1 Gallon	Yearly
Class B Alcohol-Resistant (AR)-AFFF				
Class B Protein				
Class B Fluoroprotein (FP)				
Class B Film-Forming Fluoroprotein (FFFP)				
Class B AR-FFFP				
Class A-B Hi Expansion Foam				
Class A	SILV-ex	X	less than 1 Gallon	
Training Foam				
Other				

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by May 9, 2008 in the enclosed stamped, self-addressed envelope.

Questionnaire completed by:

MIKE TRACY Fire Chief

Name and Title

Wolverton FIRE Dept.

Fire Department

218-995-2525

Phone Number

Date

9-8-08

E-Mail Address



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE
Firefighting Foam Use in Fire Training

Rec'd after Report

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- X Yes - Proceed to Question 2
No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
X 25-50% of fires
75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
X No

4. How often is foam used in training exercises?

- Weekly Monthly Quarterly
X Semi-Annually Annually Bi-Annually
Other (please specify):

5. How much foam is used per training event?

- X Less than 5 gallons 5 gallons 5 to 10 gallons
More than 10 gallons (please specify):

6. In training, where does the spent foam go?

- Storm Sewer Sanitary Sewer On-Site Septic X Ground
Other (please describe):

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

301 Hwy 75 Wolverton - Gravel Road
in front of fire Hall.



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	Angus (ryuol) 3m? - turu	No	25 1998	Yes No	~1998 Yes
Class B Alcohol-Resistant (AR)-AFFF					
Class B Protein					
Class B Fluoroprotein (FP)					
Class B Film-Forming Fluoroprotein (FFFP)					
Class B AR-FFFP					
Class A-B Hi Expansion Foam	Angus Hi Combat	No	50	Yes	~1998
Class A Training Foam	Angus <small>since ~1998</small>	Yes	1-2 gal quart-containers	Yes	Yes
Other					

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

147
Fire Chief Mike Richardson
Name and Title

Woodbury F.D.
Fire Department

651-714-3701
Phone Number

9-10-08
Date

E-Mail Address



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Phone: 651.639.9449 / 800.477.7411 Fax: 651.639.9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

Via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - Proceed to Question 2
- No - Sign the back of this form and return to Delta Consultants

2. How often is Class B or Class A foam used in response to fire calls?

0-25% of fires 25-50% of fires 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

Never Weekly Monthly Quarterly

Semi-Annually Annually Bi-Annually

Other (please specify): _____

5. How much foam is used per training event?

Less than 5 gallons 5 gallons 5 to 10 gallons

More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

Storm Sewer Sanitary Sewer On-Site Septic Ground

Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

Train w/ training foam.

various locations - not one place to train

OVER →



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QUESTIONNAIRE

Firefighting Foam Use in Fire Training

8. What type(s) and brand(s) of foam are or were used now and in the past by the Department, both for fire response and in training (if applicable)? Please check all that apply.

Type of Foam	Brand of Foam	Used in Training? Yes or No	Amount Used Annually	Currently Used?	Historically Used?
Class B Aqueous Film-Forming Foam (AFFF)	<u>Douglas Recce</u>	<u>No</u>	_____	<u>No</u>	<u>Yes</u>
Class B Alcohol-Resistant (AR)-AFFF	_____	_____	_____	_____	_____
Class B Protein	_____	_____	_____	_____	_____
Class B Fluoroprotein (FP)	_____	_____	_____	_____	_____
Class B Film-Forming Fluoroprotein (FFFP)	_____	_____	_____	_____	_____
Class B AR-FFFP	_____	_____	_____	_____	_____
Class A-B Hi Expansion Foam	_____	_____	_____	_____	_____
Class A	<u>F-500 A/B</u>	<u>No</u>	_____	<u>Yes</u>	<u>switched a few years ago to</u>
Training Foam A	<u>Douglas Recce</u>	<u>No</u>	_____	<u>No</u>	<u>Yes</u> <u>A/B foam</u>
Other	_____	_____	_____	_____	_____

Thank you for your time and cooperation. Please contact Nancy Rodning at Delta Consultants (651-697-5152 or nrodning@deltaenv.com) or Jim Stockinger at the Minnesota Pollution Control Agency (651-297-8666 or jim.stockinger@state.mn.us) if you have any questions regarding this questionnaire.

Please return this questionnaire to Delta Consultants by June 6, 2008 in the enclosed stamped, self-addressed envelope.

via telephone

Questionnaire completed by:

Al Williams - Fire Chief

Name and Title Wykoff

Fire Department _____

(City Hall) 507-352-4011 9-5-08

Phone Number _____ Date _____

E-Mail Address _____



5910 Rice Creek Parkway Suite 100 St. Paul, MN 55126 USA
 Phone: 651-639-9449 / 800-477-7411 Fax: 651-639-9473 www.deltaenv.com



QUESTIONNAIRE Firefighting Foam Use in Fire Training

via telephone

1. Does your Department currently or has your Department historically used Class A or Class B foams for firefighting operations?

- Yes - **Proceed to Question 2**
- No - **Sign the back of this form and return to Delta Consultants**

2. How often is Class B or Class A foam used in response to fire calls?

- 0-25% of fires
- 25-50% of fires
- 75-100% of fires

3. Does the Department have a compressed air foam system (CAFS) with a built-in tank on its engine(s)?

- Yes
- No

4. How often is foam used in training exercises?

- Never
- Weekly
- Monthly
- Quarterly
- Semi-Annually
- Annually
- Bi-Annually
- Other (please specify): _____

5. How much foam is used per training event?

- Less than 5 gallons
- 5 gallons
- 5 to 10 gallons
- More than 10 gallons (please specify): _____

6. In training, where does the spent foam go?

- Storm Sewer
- Sanitary Sewer
- On-Site Septic
- Ground
- Other (please describe): _____

7. Where does/did the training take place? Please include address, intersection or other specific location information for current and past training areas.

OVER →



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Appendix B

**GIS Map of Training Sites, Fire Departments and SWAAs
(Compact Disc)**

Appendix C

Updated Training Site Summaries from June 30th Report

SITE SUMMARY

Site Name: Albert Lea

Fire Department: Albert Lea Fire Department
221 E. Clark Street
Albert Lea, MN 56007

Site Contact: Fire Chief James Berg
507-377-4340
alfire@city.albertlea.org

Training Location: Frank Avenue, near the dog pound

Training Location Coordinates (X,Y): 470510.69, 4831974.89

Type of foam used in training: Ansulite AR-AFF

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFF - 15 to 20 gallons
Class A - 40 gallons

Nearest surface water: Albert Lea Lake located approximately 0.4 miles east

Nearest wetland: Approximately 1/2 mile west-southwest

Karst Area: Training site located in covered karst area

Nearest water well: <1/4 mile north

Nearest Wellhead Protection Area: <1/4 mile southeast

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Apple Valley - 140th Street

Fire Department: Apple Valley Fire Department
7100 147th Street West
Apple Valley, MN 55124

Site Contact: Nealon Thompson, Deputy Chief
952-953-2600
nthompson@ci.apple-valley.mn.us

Training Location: Apple Valley central maintenance facility, 6442 140th St. W.

Training Location Coordinates (X,Y): 484467.63, 4954738.73

Type of foam used in training: Class B AFFF: Angus
Class B AR-AFFF: Angus Tridex
Class A: Angus Hi-Combat

Foam training frequency: Bi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Storm sewer, sanitary sewer, ground

Annual foam use: AFFF: 3 gallons (historical use only)
AR-AFFF: 15 gallons
Class A: 10 gallons

Nearest surface water: Unidentified pond approximately 0.7 miles north-northeast

Nearest wetland: <1/4 mile south-southwest

Karst Area: Training site located in covered karst area.

Nearest water well: <1/8 mile east

Nearest Wellhead Protection Area: Training site is located within a WPA

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: Apple Valley - Hayes Road

Fire Department: Apple Valley Fire Department
7100 147th Street West
Apple Valley, MN 55124

Site Contact: Nealon Thompson, Deputy Chief
952-953-2600
nthompson@ci.apple-valley.mn.us

Training Location: Fire Station #1, 15000 Hayes Rd

Training Location Coordinates (X,Y): 481638.3, 4953766.48

Type of foam used in training: Class B AFFF: Angus
Class B AR-AFFF: Angus Tridex
Class A: Angus Hi-Combat

Foam training frequency: Bi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Storm sewer, sanitary sewer, ground

Annual foam use: AFFF: 3 gallons (historical use only)
AR-AFFF: 15 gallons
Class A: 10 gallons

Nearest surface water: Alimagnet Lake located approximately 0.7 miles northwest

Nearest wetland: <1/8 mile northeast

Karst Area: Training site located in covered karst area.

Nearest water well: <1/4 mile southwest

Nearest Wellhead Protection Area: <1/3 mile southwest

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: Appleton

Fire Department: Appleton Fire Department
230 W. Snelling Avenue
Appleton, MN 56208

Site Contact: Roman Ridler, Assistant Fire Chief
320-289-1363
roman_56255@hotmail.com

Training Location: Appleton Public Works building, 427 S. Munsterman Street,
Appleton

Training Location Coordinates (X,Y): 262669.97, 5008972.71

Type of foam used in training: AR-AFFF: Ansulite 3x3
Class A: Ansul Silv-ex

Foam training frequency: Semi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: Less than 15 gallons
Class A: Less than 15 gallons

Nearest surface water: Pomme de Terre River located approximately 0.4 miles east

Nearest wetland: 1/8 to 1/4 mile east

Nearest water well: Approximately 1/4 mile southeast

Nearest Wellhead Protection Area: None within one mile

**Nearest Source Water
Assessment Area:** More than 1 mile

SITE RANKING: 11

SITE SUMMARY

Site Name: Bemidji Airport Training Site

Fire Department: Bemidji Fire Department
5th Street & America Avenue
Bemidji, MN 56601

Site Contact: Dick Sathers, Fire Chief
218-751-8001

Training Location: Class B foam training at Bemidji Airport
(Class A foam training is used at the Railroad Street site)

Training Location Coordinates (X,Y): 354450.23, 5263558.3

Type of foam used in training: Class B AFFF: 3M Light Water
Class A: Ansul Silv-ex

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AFFF: approximately 5 gallons
Class A : 15 gallons

Nearest surface water: Eckles Lake located approximately 1/4 mile southwest

Nearest wetland: Adjacent north of the air field and approximately 1/4 mile southwest

Karst Area: Site is not located in a karst area.

Nearest water well: On-site at airport

Nearest Wellhead Protection Area: Class B training site located within Wellhead Protection Area

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 26

SITE SUMMARY

Site Name: Blackhoof

Fire Department: Blackhoof Fire Department
1757 Valleyview Road
Barnum, MN 55707

Site Contact: Royce Lattu, Fire Chief
218-384-4963
royce.lattu@msn.com

Training Location: 3148 County Road 5, Barnum

Training Location Coordinates (X,Y): 535252.6, 5156671.55

Type of foam used in training: F-500 by Hazard Control Technology (HCT)

Foam training frequency: Semi-Annually as of Fall 2007; no foam use prior to Fall 2007

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: HCT F-500: 2 gallons

Nearest surface water: Ellstrom Lake located approximately 1/3 mile northwest

Nearest wetland: Approximately 1/3 mile west

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile southwest

Nearest Wellhead Protection Area: None within 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 7

SITE SUMMARY

Site Name: Breckenridge

Fire Department: Breckenridge Fire Department
420 Nebraska Avenue
Breckenridge, MN 56520

Site Contact: Brad Wall, Assistant Fire Chief
218-643-6910

Training Location: 1312 Minnesota Avenue, Breckenridge

Training Location Coordinates (X,Y): 224232.69, 5129574.91

Type of foam used in training: AFFF: Chemguard
Class A: Chemguard

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: 5 gallons
Class A: 5 gallons

Nearest surface water: Ottetail River located approximately 3/4 to 1 mile east

Nearest wetland: Approximately 1 mile east

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1/3 mile southwest

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 7

SITE SUMMARY

Site Name: Buffalo Lake

Fire Department: Buffalo Lake Fire Department
212 Central Avenue NE
Buffalo Lake, MN 55313

Site Contact: Gayle Deal, Fire Chief
320-833-2374
blfdfirechief@hotmail.com

Training Location: 315 N. Main Street, near intersection of Main and Church Streets, Buffalo Lake

Training Location Coordinates (X,Y): 371998.47, 4955190.98

Type of foam used in training: AFFF: 3M Light Water
Class A: Angus Hi-Combat

Foam training frequency: Bi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: Less than 5 gallons
Class A: 5 to 10 gallons

Nearest surface water: Ottertail River located approximately 3/4 to 1 mile east

Nearest wetland: Approximately 1 mile east

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1/3 mile southwest

Nearest Wellhead Protection Area: None within 1 mile

Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 15

SITE SUMMARY

Site Name: Burnsville

Fire Department: Burnsville Fire Department
100 Civic Center Parkway
Burnsville, MN 55337

Site Contact: Dan Hove, Assistant Fire Chief
952-895-4572
dan.hove@ci.burnsville.mn.us

Training Location: Training facility jointly owned by Burnsville, Apple Valley and Eagan, located at intersection of Cliff Road and River Ridge Boulevard, Burnsville

Training Location Coordinates (X,Y): 477488.56, 4958896.18

Type of foam used in training: AR-AFFF: Ansul ATC 3/6
Class A: Ansul Silv-ex
Training Foam: Ansul (historic use)

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 60 gallons
Class A: 140 gallons
Training Foam: 55 gallons (historic use)

Nearest surface water: An unnamed (intermittent) stream less than 1/4 mile east

Nearest wetland: Less than 1/4 mile west-northwest

Karst Area: Site appears to be located in small area of active karst in the northwest corner of Dakota County

Nearest water well: Less than 1/4 mile to the north-northeast and to the southwest

Nearest Wellhead Protection Area: Training site located within WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 23

SITE SUMMARY

Site Name: Cass Lake

Fire Department: Cass Lake Volunteer Fire Department
Box 824
Cass Lake, MN 56633

Site Contact: Timothy Reiplinger, Fire Chief
218-335-6195
clfire@arvig.net

Training Location: Railroad right-of-way by 8 Railroad Street NW, Cass Lake

Training Location Coordinates (X,Y): 378429.64, 5248370.75

Type of foam used in training: AFFF: Angus First Strike
Class B: Silv-ex

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 0 to 5 gallons
AR-AFFF: 0 to 5 gallons
Class B: 20 to 25 gallons

Nearest surface water: Fox Creek located between 1/2 and 2/3 mile south

Nearest wetland: Between 1/2 and 2/3 mile south

Karst Area: Site is not located in a karst area

Nearest water well: Less than 1/4 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Claremont

Fire Department: Claremont Fire Department
Box D
Claremont, MN 55924

Site Contact: Jeff Cowell, 2nd Assistsant Fire Chief Training Officer
507-528-2701

Training Location: In front of fire hall on Front Street, Claremont

Training Location Coordinates (X,Y): 500003.99, 4876791.67

Type of foam used in training: AR-AFFF: 3M

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AR-AFFF: Approximately 20 gallons
Class A: 5 gallons

Nearest surface water: Intermittent stream 1/4 to 1/2 mile southeast

Nearest wetland: More than 1 mile

Karst Area: Site located in transition or covered karst area

Nearest water well: Less than 1/8 mile southwest

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Site is located within a SWAA

SITE RANKING: 23

SITE SUMMARY

Site Name: Cottage Grove

Fire Department: Cottage Grove Fire Department
8641 80th Street S.
Cottage Grove, MN 55016

Site Contact: Bob Byerly, Fire Chief
651-458-2860

Training Location: Fire Station 2, 8641 80th Street S., Cottage Grove

Training Location Coordinates (X,Y): 505306.85, 4964453.13

Type of foam used in training: AR-AFFF: 3M

Foam training frequency: Very seldom

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 5 gallons
Class A: 30 gallons

Nearest surface water: Intermittent stream less than 1/4 mile to the east

Nearest wetland: Less than 1/4 mile to the east

Karst Area: Training site appears to be in active karst area along the river in southwestern Washington County

Nearest water well: 1/2 to 3/4 mile west

Nearest Wellhead Protection Area: Training site is in or adjacent to a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 27

SITE SUMMARY

Site Name: Dunnell

Fire Department: Dunnell-Lake Fremont Fire Department
PO Box 216
Dunnell, MN 56127

Site Contact: Alan Helmers, Fire Chief
507-695-2950

Training Location: Old ball diamond, N. Seeley Avenue, Dunnell

Training Location Coordinates (X,Y): 356560.64, 4824721

Type of foam used in training: AFFF: Specified as Silv-ex, assumed unidentified

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF (Silv-ex/unidentified): 20 gallons
Class A (Silv-ex): 2 gallons

Nearest surface water: Intermittent stream 1/4 to 1/3 mile to the southeast

Nearest wetland: 1/4 to 1/3 mile to the northeast

Karst Area: Site is not located in a karst area.

Nearest water well: 1/3 to 1/2 mile southeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 9

SITE SUMMARY

Site Name: Ellsburg

Fire Department: Ellsburg Volunteer Fire Department
1102 Mink Road
Cotton, MN 55724

Site Contact: Brady Miller, Assistant Fire Chief
218-482-3777

Training Location: Melrude Fire Hall, 1763 Melrude Road, Melrude

Training Location Coordinates (X,Y): 544086.76, 5232684.57

Type of foam used in training: AFFF: U.S. Foam

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: not specified

Nearest surface water: Unnamed creek less than 1/4 mile south

Nearest wetland: Less than 1/4 south and southeast

Karst Area: Site is not located in a karst area.

Nearest water well: 1/2 to 1 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 9

SITE SUMMARY

Site Name: Evansville

Fire Department: Evansville Fire Department
PO Box 367
Evansville, MN 56326

Site Contact: Tim Anderson, 2nd Assistant Fire Chief
320-834-4995

Training Location: Behind fire hall, 106 State Street, East Side Addition in a cul-de-sac (new addition, east of town, east end of Main Street)

Training Location Coordinates (X,Y): 292798.32, 5098019.61

Type of foam used in training: AR-AFFF: National Foam Universal Gold 1 to 3%

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AR-AFFF: not specified

Nearest surface water: Intermittent stream 1/4 to 1/2 mile to the south-southeast

Nearest wetland: Less than 1/4 mile north

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1/2 mile northwest

Nearest Wellhead Protection Area: Less than 1/4 mile north

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 11

SITE SUMMARY

Site Name: Fairmont

Fire Department: Fairmont Fire Department
PO Box 386
Fairmont, MN 56031

Site Contact: Not provided, back side of questionnaire not completed

Training Location: City shop parking lot, 417 E. Margaret Street, Fairmont

Training Location Coordinates (X,Y): 382628.41, 4836330.65

Type of foam used in training: Foam type not specified

Foam training frequency: Quarterly

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Not specified

Nearest surface water: Buffalo Creek approximately 1/8 mile to the north

Nearest wetland: Approximately 1/8 mile north

Karst Area: Site is not located in a karst area.

Nearest water well: 1/3 to 1/2 mile south

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 21

SITE SUMMARY

Site Name: Fridley

Fire Department: Fridley Fire Department
6431 University Avenue NE
Fridley, MN 55432

Site Contact: John Berg, Fire Chief
763-572-3610
bergj@ci.fridley.mn.us

Training Location: North Metro Fire Training Center
300 71st Avenue, Fridley

Training Location Coordinates (X,Y): 479469.41, 4993724.27

Type of foam used in training: AR-AFFF: 3M (historic)

Foam training frequency: Not very often

Foam use per training event: Less than 5 gallons

Spent foam destination: Retention pond

Annual foam use: AR-AFFF: historic amount not specified
Class A: amount not specified

Nearest surface water: Rice Creek less than 1/4 mile to the south-southeast

Nearest wetland: Less than 1/4 mile southeast

Karst Area: Site appears to be in a transition or covered karst area along the Mississippi River

Nearest water well: Less than 1/4 mile northwest

Nearest Wellhead Protection Area: Training site located within WPA

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 28

SITE SUMMARY

Site Name: Glenville

Fire Department: Glenville Fire Department
Glenville, MN 56036

Site Contact: Craig Rayman, Fire Chief
507-448-3916
raymanc@geschools.com

Training Location: High school football field, Glenville

Training Location Coordinates (X,Y): 477766.09, 4823779.75

Type of foam used in training: AR-AFFF: Ansul

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: less than 5 gallons

Nearest surface water: Rock River less than 1/4 mile to the east

Nearest wetland: 1/4 to 1/2 mile east

Karst Area: Training site is located in a transition or covered karst area

Nearest water well: Less than 1/4 mile west

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Golden Valley

Fire Department: Golden Valley Fire Department
7800 Golden Valley Road
Golden Valley, MN 55427

Site Contact: Mark Kuhnly, Fire Chief
763-593-8080
mkuhnly@ci.golden-valley.mn.us

Training Location: 7800 Golden Valley Road, Golden Valley

Training Location Coordinates: 470257.51, 4981474.32

Type of foam used in training: AR-AFFF: Angus
Class A: Angus

Foam training frequency: Semi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Storm sewer, ground

Annual foam use: AR-AFFF: 20 gallons
Class A: 50 gallons

Nearest surface water: Bassett Creek less than 1/4 mile to the north-northwest

Nearest wetland: 1/4 to 1/2 mile southwest

Karst Area: Training site appears to be located in a transition or covered karst area

Nearest water well: Less than 1/8 mile north and south

Nearest Wellhead Protection Area: Training site is located in a WPA

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 22

SITE SUMMARY

Site Name: Hamburg

Fire Department: Hamburg Fire Department
181 Broadway Avenue
Hamburg, MN 55339

Site Contact: Brad Droege, Fire Chief
952-467-3232
bdroege500@aol.com

Training Location: 181 Broadway Ave., Hamburg

Training Location Coordinates (X,Y): 423146.6, 4953620.96

Type of foam used in training: AR-FFFP: Angus

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-FFFP: 5 gallons

Nearest surface water: Intermittent stream less than 1/4 mile west

Nearest wetland: Less than 1/4 mile southeast

Karst Area: Training site is located in or near a covered karst area

Nearest water well: Less than 1/4mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 15

SITE SUMMARY

Site Name: Harmony

Fire Department: Harmony Fire Department
PO Box 344
Harmony, MN 55939

Site Contact: Bill Hanlon, Fire Chief
507-886-4600 D (5211 Hall)
harmonyvfd@yahoo.com

Training Location: Fire hall, Main Avenue S., and a brush dump, east of intersection of 139 & Gordon Rd.

Training Location Coordinates (X,Y): 579975.49, 4822231.09

Type of foam used in training: AR-AFFF: Ansulite
Class A: Silv-ex
Other: Aqua Eco

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AR-AFFF: less than 5 gallons
Class A: under 5 gallons
Other: 1 stick

Nearest surface water: Intermittent stream approximately 1/4 mile south

Nearest wetland: Approximately 1/4 mile south

Karst Area: Training site is located in an active karst area

Nearest water well: 1/2 to 1 mile to the east and to the southwest

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Site is located in a SWAA

SITE RANKING: 19

SITE SUMMARY

Site Name: Hoyt Lakes

Fire Department: Hoyt Lakes Fire Department
City Hall
Hoyt Lakes, MN 55750

Site Contact: Steve Stoks, Fire Chief
218-225-2000

Training Location: Triple ballfields or near Hoyt Lakes fire hall, 123-1/2 Kennedy Memorial Drive, Hoyt Lakes

Training Location Coordinates (X,Y): 564498.69, 5263299.13

Type of foam used in training: Class A-B Hi Expansion: Jet-x
Class A: Ansulite
Class A: Silv-ex
Other: Dawn dish soap

Foam training frequency: Bi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: less than 5 gallons
Class A-B Hi Expansion: 5 gallons
Class A: 20 gallons

Nearest surface water: Colby Lake less than 1/4 mile north

Nearest wetland: Less than 1/4 mile north-northeast

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile west

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 11

SITE SUMMARY

Site Name: Hugo - 140th Street N.

Fire Department: Hugo Fire Department
5323 140th Street N.
Hugo, MN 55038

Site Contact: Ron Gray, Fire Fighter
651-429-6366
hugfd@comcast.net

Training Location: 5223 140th St. N., Hugo

Training Location Coordinates (X,Y): 500134.17, 5000140.01

Type of foam used in training: AR-AFFF: Angus
Class A: Angus

Foam training frequency: Bi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 10 gallons
Class A: 1 to 2 gallons

Nearest surface water: Intermittent stream less than 1/4 mile east

Nearest wetland: Less than 1/4 mile east

Karst Area: Training site is located in a transition or covered karst area.

Nearest water well: Less than 1/4 mile north and south

Nearest Wellhead Protection Area: Less than 1/4 mile north

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 19

SITE SUMMARY

Site Name: Hugo - Fable Court N.

Fire Department: Hugo Fire Department
5323 140th Street N.
Hugo, MN 55038

Site Contact: Ron Gray, Fire Fighter
651-429-6366
hugfd@comcast.net

Training Location: 4630 Fable Rd Ct. N., Hugo

Training Location Coordinates (X,Y): 498735.34, 4999366.19

Type of foam used in training: AR-AFFF: Angus
Class A: Angus

Foam training frequency: Bi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 10 gallons
Class A: 1 to 2 gallons

Nearest surface water: Clearwater Creek 1/4 to 1/2 mile east

Nearest wetland: Less than 1/4 mile west

Karst Area: Training site is located in a transition or covered karst area.

Nearest water well: Less than 1/4 mile north and south

Nearest Wellhead Protection Area: Training site is located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 20

SITE SUMMARY

Site Name: Hutchinson - 3rd Avenue SE

Fire Department: Hutchinson Fire Department
205 3rd Ave. SE
Hutchinson, MN 55350

Site Contact: James Popp, Battalion Chief
320-234-5653
jpoppp@ci.hutchinson.mn.us

Training Location: 205 3rd Av. SE, Hutchinson

Training Location Coordinates (X,Y): 391873.34, 4971515.91

Type of foam used in training: AFFF: 3M Light Water, historic use
AR-AFFF: 3M Light Water, historic use
Class A: Ansul Silv-ex, current use

Foam training frequency: Quarterly

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: less than 10 gallons, historic use
AR-AFFF: less than 10 gallons, historic use
Class A: 10 gallons, current use

Nearest surface water: Crow River approximately 1/2 mile northeast

Nearest wetland: Approximately 1/2 mile northeast

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile southwest of 3rd Avenue site

Nearest Wellhead Protection Area: 3rd Avenue site located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 22

SITE SUMMARY

Site Name: Hutchinson - Adams Street

Fire Department: Hutchinson Fire Department
205 3rd Ave. SE
Hutchinson, MN 55350

Site Contact: James Popp, Battalion Chief
320-234-5653
jpopp@ci.hutchinson.mn.us

Training Location: 1300 Adams St. SE, Hutchinson

Training Location Coordinates (X,Y): 393884.42, 4969258.23

Type of foam used in training: AFFF: 3M Light Water, historic use
AR-AFFF: 3M Light Water, historic use
Class A: Ansul Silv-ex, current use

Foam training frequency: Quarterly

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: less than 10 gallons, historic use
AR-AFFF: less than 10 gallons, historic use
Class A: 10 gallons, current use

Nearest surface water: Unidentified pond less than 1/4 mile west

Nearest wetland: 1/4 to 1/2 mile southwest

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile east

Nearest Wellhead Protection Area: 1/4 to 1/3 mile north

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 21

SITE SUMMARY

Site Name: Linwood

Fire Department: Linwood Fire Department
22817 Typo Creek Drive NE
Stacy, MN 55079

Site Contact: Jim Stockinger, Fire Captain
612-868-1924

Training Location: Behind station, 22870 Typo Creek Drive, Stacy

Training Location Coordinates (X,Y): 492101.46, 5024907.15

Type of foam used in training: AFFF: 3M Light Water ATC
AR-AFFF: 3M Light Water ATC

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 5 to 10 gallons
AR-AFFF: 5 to 10 gallons
Class A: 20 to 25 gallons

Nearest surface water: Unidentified pond less than 1/4 mile southwest

Nearest wetland: Less than 1/4 mile southeast and southwest

Karst Area: Site is not located in a karst area

Nearest water well: Less than 1/4 mile east

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 23

SITE SUMMARY

Site Name: Littlefork

Fire Department: Littlefork Fire Department
PO Box 387
Littlefork, MN 56653

Site Contact: Michael LaClair, Secretary
218-278-6666

Training Location: Fire hall, corner of McPherson and 3rd Avenue, Littlefork

Training Location Coordinates (X,Y): 458551.57, 5360557

Type of foam used in training: Not specified, 3M foam use assumed

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: Not specified

Nearest surface water: Little Fork River less than 1/4 mile west

Nearest wetland: On or adjacent to training site

Karst Area: Training site not located in a karst area.

Nearest water well: On or adjacent to training site

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 23

SITE SUMMARY

Site Name: Loretto

Fire Department: Loretto Fire Department
259 N. Medina Street
Loretto, MN 55357

Site Contact: Jeff Leuer, Assistant Fire Chief
763-479-3036
lorettopublicworks@hotmail.com

Training Location: 259 Medina Street N., Loretto

Training Location Coordinates (X,Y): 450045.23, 4989331.1

Type of foam used in training: AFFF: 3M

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Storm sewer

Annual foam use: 5 gallons

Nearest surface water: Intermittent stream 1/4 to 1/3 mile northwest

Nearest wetland: Approximately 1/4 mile northwest

Karst Area: Site is not located in a karst area.

Nearest water well: 1/4 to 1/3 mile east

Nearest Wellhead Protection Area: Training site located in WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 18

SITE SUMMARY

Site Name: Mankato

Fire Department: Mankato Fire Department
710 Front Street
Mankato, MN 56001

Site Contact: Al Ratzloff, Deputy Director, Fire
507-387-8703
aratzloff@city.mankato.mn.us

Training Location: Fire station #1, 300 Madison Avenue, Mankato

Training Location Coordinates (X,Y): 420708.19, 4891577.5

Type of foam used in training: AFFF: 3M, historical use
AR-AFFF: Angus Alcolac, current use
Class A: Ansul Silv-ex, current use

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: 5 to 10 gallons, historical use
AR-AFFF: 5 to 10 gallons, current use
Class A: 5 gallons

Nearest surface water: Minnesota River 1/2 to 2/3 mile west

Nearest wetland: More than 1 mile

Karst Area: Training site appears to be in an active karst area

Nearest water well: Approximately 1/2 mile west

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 21

SITE SUMMARY

Site Name: Marshall

Fire Department: Marshall Fire Department
201 E. Saratoga
Marshall, MN 56258

Site Contact: Marc Klaith, Fire Chief
507-532-5141
marshallfire@iw.net

Training Location: Marshall Merrit Center, County Road 33 (1001 W. Erie Road)

Training Location Coordinates (X,Y): 276985.21, 4928003.45

Type of foam used in training: AR-AFFF: 3M, use in training not specified
Training foam: Trainol

Foam training frequency: Quarterly

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: not specified
Class A: not specified
Training foam: 15 gallons

Nearest surface water: On or adjacent to site

Nearest wetland: On or adjacent to site

Karst Area: Site is not located in a karst area

Nearest water well: 1/4 to 1/2 mile east

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 21

SITE SUMMARY

Site Name: Maynard

Fire Department: Maynard Fire Department
PO Box 154
Maynard, MN 56260

Site Contact: Steven Lindquist, Fire Chief
320-367-2140

Training Location: Mable Street and Sherman, Maynard

Training Location Coordinates (X,Y): 304957.74, 4975563.32

Type of foam used in training: Other: Chemguard, historical use, type AFFF assumed
Class A: Silv-ex, current use

Foam training frequency: Bi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: Other: not specified
Class A: not specified

Nearest surface water: Unidentified creek 1/4 to 1/3 mile west

Nearest wetland: 1/4 to 1/2 mile southeast

Karst Area: Site not located in a karst area.

Nearest water well: Less than 1/4 mile east

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Training site is located within a SWAA

SITE RANKING: 12

SITE SUMMARY

Site Name: Minneapolis

Fire Department: Minneapolis Fire Department
Room 230, City Hall
Minneapolis, MN 55415

Site Contact: Walt Lee, Captani, Engineering Officer, Fire
350 S. 5th Street, Room 230
Minneapolis, MN 55415
612-673-2059 office
612-718-1859 cell
walter.lee@ci.minneapolis.mn.us

Training Location: 25 37th Avenue NE, Minneapolis

Training Location Coordinates (X,Y): 477993.41, 4986929.2

Type of foam used in training: AFFF: 3M
Class A: Ansul

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: approximately 5 gallons
AR-AFFF: not specified
Class A: approximately 5 gallons

Nearest surface water: Mississippi River less than 1/4 mile west

Nearest wetland: 1/4 to 1/2 mile west

Karst Area: Training site is located in a transition or covered karst area

Nearest water well: Approximately 1/2 mile southeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 19

SITE SUMMARY

Site Name: Montevideo

Fire Department: Montevideo Fire Department
PO Box 517
Montevideo, MN 56265

Site Contact: Robb Gilkey
firedept@montevideomn.org

Training Location: Fire station, 103 Canton Avenue, Montevideo

Training Location Coordinates (X,Y): 285000.91, 4980838.01

Type of foam used in training: AR-AFFF: 3M Light Water ATC 3%-6%
Class A: Ansul Silv-ex

Foam training frequency: "When we have a lot of foam"

Foam use per training event: 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF (3M Light Water): 2 gallons
AR-AFFF (Ansulite 3x3): 0 gallons
Class A: approximately 1 gallon

Nearest surface water: Chippewa River less than 1/4 mile west

Nearest wetland: Less than 1/4 north

Karst Area: Site is not located in a karst area.

Nearest water well: 1/2 to 1 mile southeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 17

SITE SUMMARY

Site Name: Myrtle

Fire Department: Myrtle Fire Department
Myrtle, MN 56070

Site Contact: Not provided

Training Location: Myrtle ball field

Training Location Coordinates: 487068.87, 4823399.48

Type of foam used in training: Not specified, use of 3M AFFF assumed

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Not specified

Nearest surface water: Intermittent stream located 1/2 to 3/4 mile west

Nearest wetland: More than 1 mile

Karst Area: Training site appears to be located in an active karst area

Nearest water well: 1/2 to 3/4 mile east

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Training site is located in a SWAA

SITE RANKING: 22

SITE SUMMARY

Site Name: North St. Paul

Fire Department: North St. Paul Fire Department
2400 Margaret Street
North St. Paul, MN 55109

Site Contact: Jason Mallinger, Deputy Fire Chief
651-747-2552
jmallinger@ci.north-saint-paul.mn.us

Training Location: North St. Paul Public Works, 2303 1st Street N., North St. Paul

Training Location Coordinates (X,Y): 500221.49, 4984167.2

Type of foam used in training: AFFF: 3M Light Water
Class A: 3M Light Water (SFFF)

Foam training frequency: Semi-annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 5 gallons
Class A: 15 gallons

Nearest surface water: Unnamed stream less than 1/8 mile northeast

Nearest wetland: 1/4 to 1/2 mile west

Karst Area: Training site is located in a covered karst area

Nearest water well: Less than 1/4 mile southwest

Nearest Wellhead Protection Area: Training site located in or adjacent to a WPA

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 28

SITE SUMMARY

Site Name: Northrop

Fire Department: Northrop Fire Department
PO Box 208
Northrop, MN 56075

Site Contact: Corrie Martinson, Fire Chief
507-399-3228
nfdiredp@yahoo.com

Training Location: Behind fire hall, 211 N. Bridgeman, Northrop

Training Location Coordinates (X,Y): 384230.64, 4843689.71

Type of foam used in training: Other: Pyrocom Stick

Foam training frequency: Bi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Other: 1 stick (~5 gallons)

Nearest surface water: Lake Charlotte, more than 1 mile southwest

Nearest wetland: More than 1/4 to the east and west

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/8 mile southeast

Nearest Wellhead Protection Area: Training site located in WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 11

SITE SUMMARY

Site Name: Paynesville

Fire Department: Paynesville Fire Department
Box 34
Paynesville, MN 56362

Site Contact: Jack Winter, Fire Chief
320-243-3714
jwinter@lakedalelink.net

Training Location: City airport, Paynesville

Training Location Coordinates (X,Y): 364202.33, 5026039.25

Type of foam used in training: AR-AFFF: Chemguard AR3% (use in training not specified)
Class A: Ansul Silv-ex (use in training not specified)
Other: Pyrocom TS-Eco (use in training not specified)

Foam training frequency: Bi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: less than 1 gallon
Class A: not specified
Other: not specified

Nearest surface water: North Fork of the Crow River, less than 1/4 mile north of airport

Nearest wetland: Less than 1/4 mile north

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/8 mile from airport

Nearest Wellhead Protection Area: Training site located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: Pelican Rapids

Fire Department: Pelican Rapids Fire Department
709 5th Street SE
Pelican Rapids, MN 56572

Site Contact: Trevor Steeves, Fire Chief
218-863-5211
prfd@loretel.net

Training Location: 2nd Avenue NW and 4th Street, Pelican Rapids

Training Location Coordinates (X,Y): 263129.29, 5162260.44

Type of foam used in training: AFFF: U.S. First Strike
Class A: Ansul Silv-ex

Foam training frequency: Bi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: 5 gallons
Class A: 5 gallons

Nearest surface water: Pelican River, less than 1/4 mile south

Nearest wetland: Less than 1/4 mile south

Karst Area: Site is not located in a karst area.

Nearest water well: At or adjacent to training site

Nearest Wellhead Protection Area: Training site located in a WPA

Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: Pierz

Fire Department: Pierz Fire Department
PO Box 340
Pierz, MN 56364

Site Contact: Brian Jay Boxer, Fire Chief
320-468-6608
pierzfire@mywdo.com

Training Location: Intersection of Highways 25 and 27, Pierz. Last training in 2005.

Training Location Coordinates (X,Y): 414262.67, 5091305.4

Type of foam used in training: AFFF: 3M

Foam training frequency: Bi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: not specified
Class A: 25 gallons

Nearest surface water: Skunk River, less than 1/8 mile east

Nearest wetland: Less than 1/8 mile southeast

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1/4 mile west

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Training site located in a SWAA

SITE RANKING: 22

SITE SUMMARY

Site Name: Pine River - Fair Grounds

Fire Department: Pine River Fire Department
PO Box 444
Pine River, MN 56474

Site Contact: Keith Farnam, Fire Chief
218-587-2131
prfd56474@yahoo.com

Training Location: Fair grounds on 1st Street, Pine River

Training Location Coordinates (X,Y): 392262.83, 5175261.39

Type of foam used in training: AR-AFFF: Ansulite (use in training not specified)
Class A: Ansul Silv-ex

Foam training frequency: Less than Bi-annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: not specified
Class A: 30 gallons

Nearest surface water: Norway Lake outlet, 1/4 to 1/2 mile to the east

Nearest wetland: 1/4 to 1/2 mile east

Karst Area: Site is not located in a karst area.

Nearest water well: 1/4 to 1/2 mile west of both training sites

Nearest Wellhead Protection Area: Site is located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 10

SITE SUMMARY

Site Name: Pine River School Grounds

Fire Department: Pine River Fire Department
PO Box 444
Pine River, MN 56474

Site Contact: Keith Farnam, Fire Chief
218-587-2131
prfd56474@yahoo.com

Training Location: School grounds on 1st Street, Pine River

Training Location Coordinates (X,Y): 392348.93, 5175786.55

Type of foam used in training: AR-AFFF: Ansulite (use in training not specified)
Class A: Ansul Silv-ex

Foam training frequency: Less than Bi-annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: not specified
Class A: 30 gallons

Nearest surface water: Norway Lake outlet, less than 1/4 mile east

Nearest wetland: Less than 1/4 mile east

Karst Area: Site is not located in a karst area.

Nearest water well: 1/4 to 1/2 mile west

Nearest Wellhead Protection Area: Adjacent to a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Porter

Fire Department: Porter Fire Department
505 Maple
Porter, MN 56280

Site Contact: Patrick Vlaininck, Fire Chief
507-296-4475

Training Location: Fire hall, 301 Lone Tree Street, Porter

Training Location Coordinates (X,Y): 248834.81, 4947264.5

Type of foam used in training: AR-AFFF: Chemguard
Class A: Ansul Silv-ex

Foam training frequency: Semi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AR-AFFF: 5 gallons
Class A: 5 gallons

Nearest surface water: North Branch of the Yellow Medicine River, less than 1/4 mile east

Nearest wetland: Approximately 1/4 mile south

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 9

SITE SUMMARY

Site Name: Preston

Fire Department: Preston Fire Department
PO Box 216
Preston, MN 55965

Site Contact: Jerry Olson, Fire Chief
507-765-3801 (fire hall)
507-765-3327 (home)
jolson002@centurytel.net

Training Location: Fillmore County Fairgrounds, Fillmore Street & County Highway
12, Preston

Training Location Coordinates (X,Y): 574569.31, 4835742.38

Type of foam used in training: AR-AFFF: 3M
Training Foam: Clarey's First Strike

Foam training frequency: Two times in last 15 years

Foam use per training event: 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 5 gallons
Class A: 5 gallons
Training Foam: 5 gallons

Nearest surface water: South Branch of the Root River located adjacent north of the
fairgrounds

Nearest wetland: Adjacent east of fairgrounds

Karst Area: Training site is located in an active karst area

Nearest water well: At fairgrounds

Nearest Wellhead Protection Area: Less than 1/4 mile southwest

**Nearest Source Water
Assessment Area:** More than 1 mile

SITE RANKING: 28

SITE SUMMARY

Site Name: Rochester

Fire Department: Rochester Fire Department
201 4th Street SE, Room 10
Rochester, MN 55904

Site Contact: Dan Slavin, Deputy Fire Chief
507-328-2813
dslavin@rochestermn.gov

Training Location: 2021 41st Street NW, Rochester

Training Location Coordinates (X,Y): 540539.06, 4879254.12

Type of foam used in training: AFFF: 3M
Class A: 3M
Other: HCT F-500 emulsifier

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 5 gallons
Class A: 5 gallons
Other: 25 gallons

Nearest surface water: Intermittent stream 1/4 to 1/3 mile west

Nearest wetland: 1/2 to 1 mile west

Karst Area: Training site is located in an active karst area.

Nearest water well: Less than 1/4 mile south

Nearest Wellhead Protection Area: Training site located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 25

SITE SUMMARY

Site Name: Silver Lake

Fire Department: Silver Lake Fire Department
308 W. Main
Silver Lake, MN 55381

Site Contact: Dale Kosek, Assistant Fire Chief
320-327-2412
dale.kosek@mchsi.com

Training Location: Public works material storage area, 305 E. Main Street, Silver Lake

Training Location Coordinates (X,Y): 405659.17, 4972916.58

Type of foam used in training: AFFF: Angus Tridex

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 3 to 5 gallons

Nearest surface water: Silver Lake, less than 1/4 mile southwest

Nearest wetland: Approximately 1/4 mile east

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 15

SITE SUMMARY

Site Name: St. Clair
Fire Department: St. Clair Fire Department
PO Box 185
St. Clair, MN 56080
Site Contact: Not provided, page two of questionnaire not completed

Training Location: City of St. Clair
Training Location Coordinates (X,Y):
Type of foam used in training: Not specified, use of 3M foam in training assumed
Foam training frequency: Semi-Annually
Foam use per training event: 5 to 10 gallons
Spent foam destination: Storm Sewer
Annual foam use: Not specified
Nearest surface water: LeSueur River located along northeast side of town
Nearest wetland: 1/4 to 1/3 mile outside of town
Karst Area: Training site is located in a covered karst area
Nearest water well: In town
Nearest Wellhead Protection Area: More than 1 mile
Training Site in Source Water Assessment Area?: No
SITE RANKING: 23

SITE SUMMARY

Site Name: St. Cloud - 41st Avenue N.

Fire Department: St. Cloud Fire Department
101 10th Avenue N.
St. Cloud, MN 56303

Site Contact: Dan Wrobbel, Deputy Fire Chief
320-650-3528
dean.wrobbel@ci.st-cloud.mn.us

Training Location: Open field near Station 2, 700 41st Avenue N.

Training Location Coordinates (X,Y): 405767.11, 5046463.13

Type of foam used in training: AR-AFFF: Chemguard
Training Foam: Chemguard

Foam training frequency: Annually

Foam use per training event: AR-AFFF: 20 gallons
Training Foam: 40 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 20 gallons
Training Foam: 40 gallons

Nearest surface water: Unnamed pond less than 1/4 mile northwest

Karst Area: Site is not located in a karst area.

Nearest wetland: 1/2 to 1 mile south

Nearest water well: 1/4 to 1/3 mile southwest

Nearest Wellhead Protection Area: Site is located in or adjacent to a WPA.

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: St. Cloud - 45th Avenue

Fire Department: St. Cloud Fire Department
101 10th Avenue N.
St. Cloud, MN 56303

Site Contact: Dan Wrobbel, Deputy Fire Chief
320-650-3528
dean.wrobbel@ci.st-cloud.mn.us

Training Location: Station 4, 1550 45th Avenue SE (airport station), St. Cloud

Training Location Coordinates (X,Y): 416307.64, 5044386

Type of foam used in training: AR-AFFF: Chemguard
Training Foam: Chemguard

Foam training frequency: Annually

Foam use per training event: AR-AFFF: 20 gallons
Training Foam: 40 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: 20 gallons
Training Foam: 40 gallons

Nearest surface water: Elk River located along south side of airport, approximately 1 mile south of Station 4.

Nearest wetland: Less than 1/4 mile west

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1 mile south

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 15

SITE SUMMARY

Site Name: St. Paul

Fire Department: St. Paul Fire Department
100 E. 11th Street
St. Paul, MN 55101

Site Contact: Clarence Hawkins
651-644-9133
Clarence.hawkins@ci.stpaul.mn.us

Training Location: 1683 Energy Park Drive, St. Paul

Training Location Coordinates (X,Y): 486574.76, 4979985.83

Type of foam used in training: AFFF: 3M Light Water ATC (historic use)
AR-AFFF: 3M Light Water ATC (historic use)
Class A-B Hi Expansion: Kidde Hi-Ex

Foam training frequency: Approximately every 18 months, when there is a recruit academy

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 15 gallons
AR-AFFF: 15 gallons
Class A-B Hi Ex: 12 ounces
Class A: 2 gallons
Other: 5 gallons (Ansulite 3%)

Nearest surface water: Unidentified pond, 1/4 to 1/2 mile southwest

Nearest wetland: 1/2 to 1/2 mile southwest

Karst Area: Training site appears to be located in an active karst area

Nearest water well: Less than 1/8 mile east

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 22

SITE SUMMARY

Site Name: Tyler

Fire Department: Tyler Fire Department
Tyler, MN 56178

Site Contact: Richard Borresen, Fire Chief
507-247-5556
ridiane@frontiernet.net

Training Location: Corner of Bradley and Applebee, Tyler

Training Location Coordinates (X,Y): 250028.84, 4907390.31

Type of foam used in training: AR-AFFF: Angus (use in training not specified)
Class A: Anul Silv-ex (use in training not specified)

Foam training frequency: Quarterly

Foam use per training event: Less than 5 gallons

Spent foam destination: 80% to ground, 20% to storm sewer

Annual foam use: AR-AFFF: not specified
Class A: not specified

Nearest surface water: County ditch, 1/2 to 1 mile northeast

Nearest wetland: 1/4 to 1/2 mile north

Karst Area: Site is not located in a karst area.

Nearest water well: Approximately 1/2 mile north and south

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 9

SITE SUMMARY

Site Name: Upsala

Fire Department: Upsala Fire Department
PO Box 164
Upsala, MN 56384

Site Contact: Jay Baggenstoss, Fire Chief
320-573-4101

Training Location: 110 W. Elm Avenue, Upsala

Training Location Coordinates (X,Y): 377783.95, 5074021.29

Type of foam used in training: Class A-B Hi Expansion: Royal Chemical Co.

Foam training frequency: Semi-Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: Class A-B Hi Ex: 5 to 10 gallons

Nearest surface water: North Twin River, less than 1/4 mile north

Nearest wetland: Less than 1/4 mile north

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile north

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 15

SITE SUMMARY

Site Name: Waconia - Airport Road

Fire Department: Waconia Fire Department
26 S. Maple Street
Waconia, MN 55387

Site Contact: Randall Sorenson, Fire Chief
952-442-2316
fire@waconia.org

Training Location: 7550 Airport Road, Waconia

Training Location Coordinates (X,Y): 443694.99, 4965534.5

Type of foam used in training: AFFF: Angus
AR-AFFF: Angus
Class A: Angus

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Not specified

Annual foam use: AFFF: less than 5 gallons
AR-AFFF: less than 5 gallons
Class A: more than 50 gallons

Nearest surface water: Piersons Lake, less than 1/4 mile southeast

Nearest wetland: Less than 1/4 mile southeast

Karst Area: Site does not appear to be located in a karst area.

Nearest water well: Less than 1/4 mile east, south and southwest

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Waconia - Maple Street

Fire Department: Waconia Fire Department
26 S. Maple Street
Waconia, MN 55387

Site Contact: Randall Sorenson, Fire Chief
952-442-2316
fire@waconia.org

Training Location: 26 S. Maple Street, Waconia

Training Location Coordinates (X,Y): 437498.01, 4966672.27

Type of foam used in training: AFFF: Angus
AR-AFFF: Angus
Class A: Angus

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Not specified

Annual foam use: AFFF: less than 5 gallons
AR-AFFF: less than 5 gallons
Class A: more than 50 gallons

Nearest surface water: Lake Waconia, less than 1/4 mile north

Nearest wetland: Maple Street site: 1/4 to 1/2 mile west

Karst Area: Site does not appear to be located in a karst area.

Nearest water well: Less than 1/4 mile east

Nearest Wellhead Protection Area: Site is located in Wellhead Protection Area

Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 16

SITE SUMMARY

Site Name: Waconia - Paradise Lane

Fire Department: Waconia Fire Department
26 S. Maple Street
Waconia, MN 55387

Site Contact: Randall Sorenson, Fire Chief
952-442-2316
fire@waconia.org

Training Location: 8075 Paradise Lane, Waconia

Training Location Coordinates (X,Y): 439790.58 4967181

Type of foam used in training: AFFF: Angus
AR-AFFF: Angus
Class A: Angus

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Not specified

Annual foam use: AFFF: less than 5 gallons
AR-AFFF: less than 5 gallons
Class A: more than 50 gallons

Nearest surface water: Lake Waconia, less than 1/4 mile north

Nearest wetland: Paradise Lane site: less than 1/4 mile northeast

Karst Area: Site does not appear to be located in a karst area.

Nearest water well: Less than 1/4 mile southwest

Nearest Wellhead Protection Area: Site is located in Wellhead Protection Area

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 18

SITE SUMMARY

Site Name: Waldorf

Fire Department: Waldorf Fire Department
PO Box 8
Waldorf, MN 56091

Site Contact: Adam Gruskreutz, Fire Chief
507-239-2248 (fire hall)
507-239-0124 (home)
adamg@myclearwave.net

Training Location: Main Street, Waldorf

Training Location Coordinates (X,Y): 443992.29, 4864698.87

Type of foam used in training: AFFF: Royal Chemical

Foam training frequency: Bi-monthly

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: 5 gallons

Nearest surface water: Cobb River, 1/4 to 1/3 mile west

Nearest wetland: Approximately 1 mile northwest

Karst Area: Training site is located in a covered karst area

Nearest water well: 3/4 to 1 mile south

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Site is located in a SWAA

SITE RANKING: 16

SITE SUMMARY

Site Name: Waseca

Fire Department: Waseca Fire Department
117 2nd Avenue SE
Waseca, MN 56093

Site Contact: Gary Conrath, Fire Chief
507-835-3210
garyc@ci.waseca.mn.us

Training Location: Waseca County fairground, grand stand area

Training Location Coordinates (X,Y): 459765.11, 4881691.45

Type of foam used in training: Class B Protein: brand not specified; 3M did not make protein foam
Class A: brand not specified

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: Class B Protein: 10 gallons
Class A: 5 gallons

Nearest surface water: Clear Lake, 1/4 to 1/3 mile east

Nearest wetland: Less than 1/4 mile northeast

Karst Area: Training site is located in a covered karst area

Nearest water well: 1/2 to 1/3 mile north

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

SITE RANKING: 13

SITE SUMMARY

Site Name: Welcome

Fire Department: Welcome Fire Department
PO Box 373
Welcome, MN 56181

Site Contact: Chris Borchardt, Training Officer
507-728-8892

Training Location: Northeast corner of Dugan Street S. and Mill Street, Welcome

Training Location Coordinates (X,Y): 369375.97, 4836030.82

Type of foam used in training: Class B Protein: National Foam

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Ground

Annual foam use: Class B Protein: 5 gallons

Nearest surface water: Intermittent streams 1/4 to 1/2 mile to the west and northeast

Nearest wetland: Less than 1/4 mile south

Karst Area: Site is not located in a karst area.

Nearest water well: Less than 1/4 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Site is located in a SWAA

SITE RANKING: 14

SITE SUMMARY

Site Name: Winona - 3rd Street

Fire Department: Winona Fire Department
451 E. 3rd Street
Winona, MN 55987

Site Contact: Ed Krall, Fire Chief
507-457-8266
ekrall@ci.winona.mn.us

Training Location: Central Fire Station, 451 E. 3rd Street

Training Location Coordinates (X,Y): 609503.38, 4878473.9

Type of foam used in training: AR-AFFF: Ansulite ARC

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AR-AFFF: 45 gallons
Class A: 5 gallons

Nearest surface water: Mississippi River, approximately 1/4 mile NE

Nearest wetland: Approximately 1 mile south

Karst Area: Training site is located in an active karst area

Nearest water well: Aproximately 1/4 mile north

Nearest Wellhead Protection Area: Site is located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 19

SITE SUMMARY

Site Name: Winona - Homer Road

Fire Department: Winona Fire Department
451 E. 3rd Street
Winona, MN 55987

Site Contact: Ed Krall, Fire Chief
507-457-8266
ekrall@ci.winona.mn.us

Training Location: Technical College, 1250 Homer Road, Winona

Training Location Coordinates (X,Y): 611156.16, 4875130.08

Type of foam used in training: AR-AFFF: Ansulite ARC

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AR-AFFF: 45 gallons
Class A: 5 gallons

Nearest surface water: Unidentified streams and ponds on campus of Technical College

Nearest wetland: On campus of Technical College

Karst Area: Training site is located in an active karst area

Nearest water well: Wells on campus

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 16

Appendix D

Municipal Fire Department Training Site Profiles for Sites Ranked Post-June 30th Report

- Alborn
- Alexandria
- Brooklyn Center
- Cannon Falls
- Clearbrook
- Cloquet
- Crosslake
- Dilworth
- Elysian
- Goodview
- Kenyon
- Lake Johanna
- Lanesboro
- Luverne
- Mapleton
- New York Mills
- Newfolden
- Northfield
- Norwood Young America
- Perham
- Plymouth
- Randall
- Richfield
- Richmond
- Rosemount
- Sartell LeSauk
- Wolverton

- **Alborn**

- Highway 7
- Seville Road

SITE SUMMARY

Site Name: Alborn - Highway 7

Fire Department: Alborn Fire Department
6955 Stoney Brook Road
Alborn, MN 55702

Site Contact: Jay Tremblay, Training Officer
218-345-6358 (training officer)
218-345-6314 (fire chief)
albornfire@aol.com
busyboy222@juno.com

Training Location: Alborn Fire Hall, 6390 Highway 7
Demonstration and training site

Training Location Coordinates (X,Y): 532828.98, 5202247.95

Type of foam used in training: Class B AFFF: Ansulite
Class A: Ansul Silv-Ex

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class B AFFF: 5 gallons
Class A: 15 gallons

Nearest surface water: Artichoke River located approximately 1/4 mile west

Nearest wetland: Approximately 1/4 mile west

Karst Area: Training site not located in a karst area

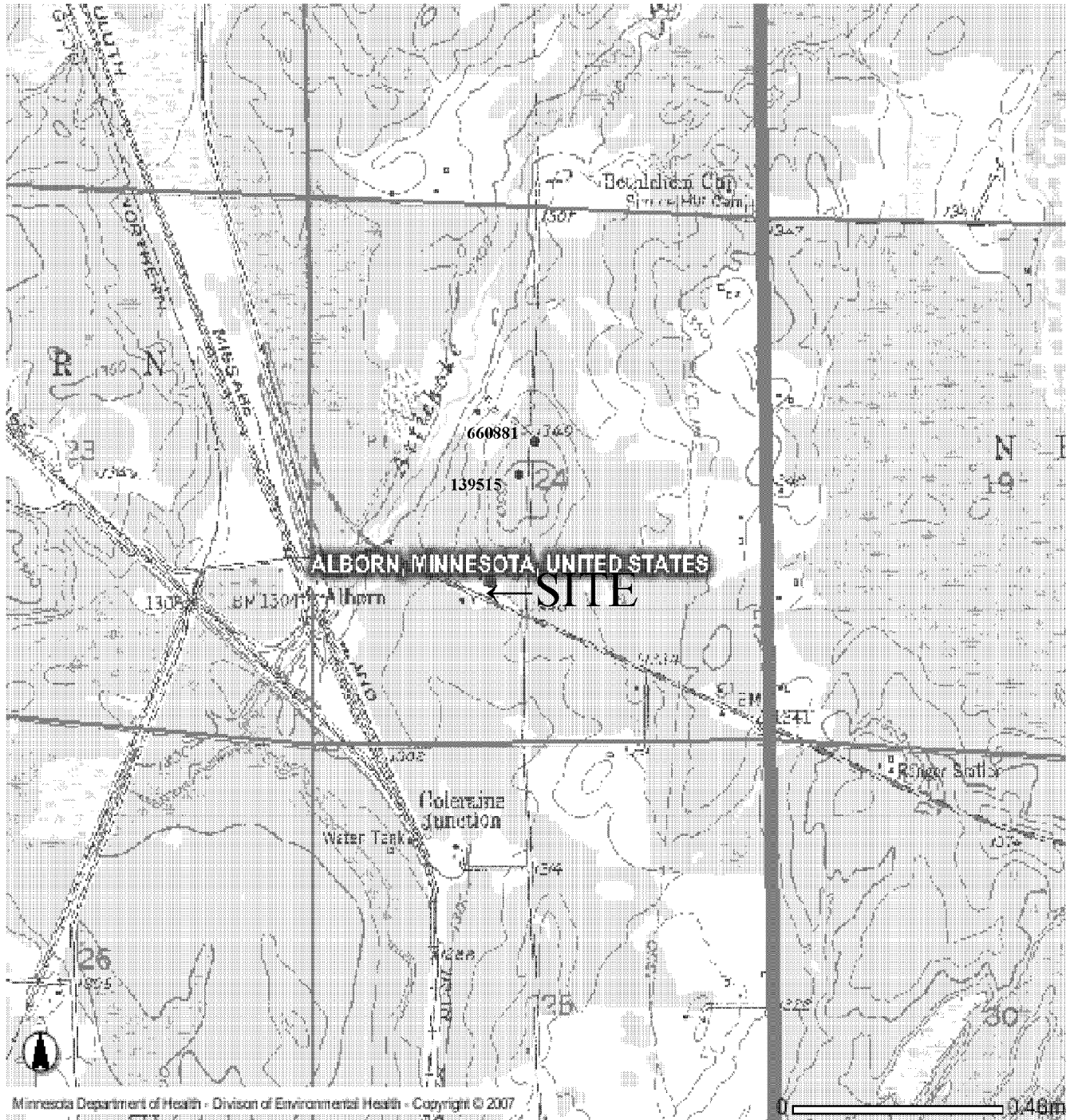
Nearest water well: Approximately 1/4 mile north

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

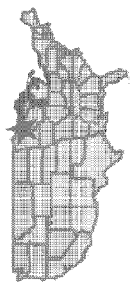
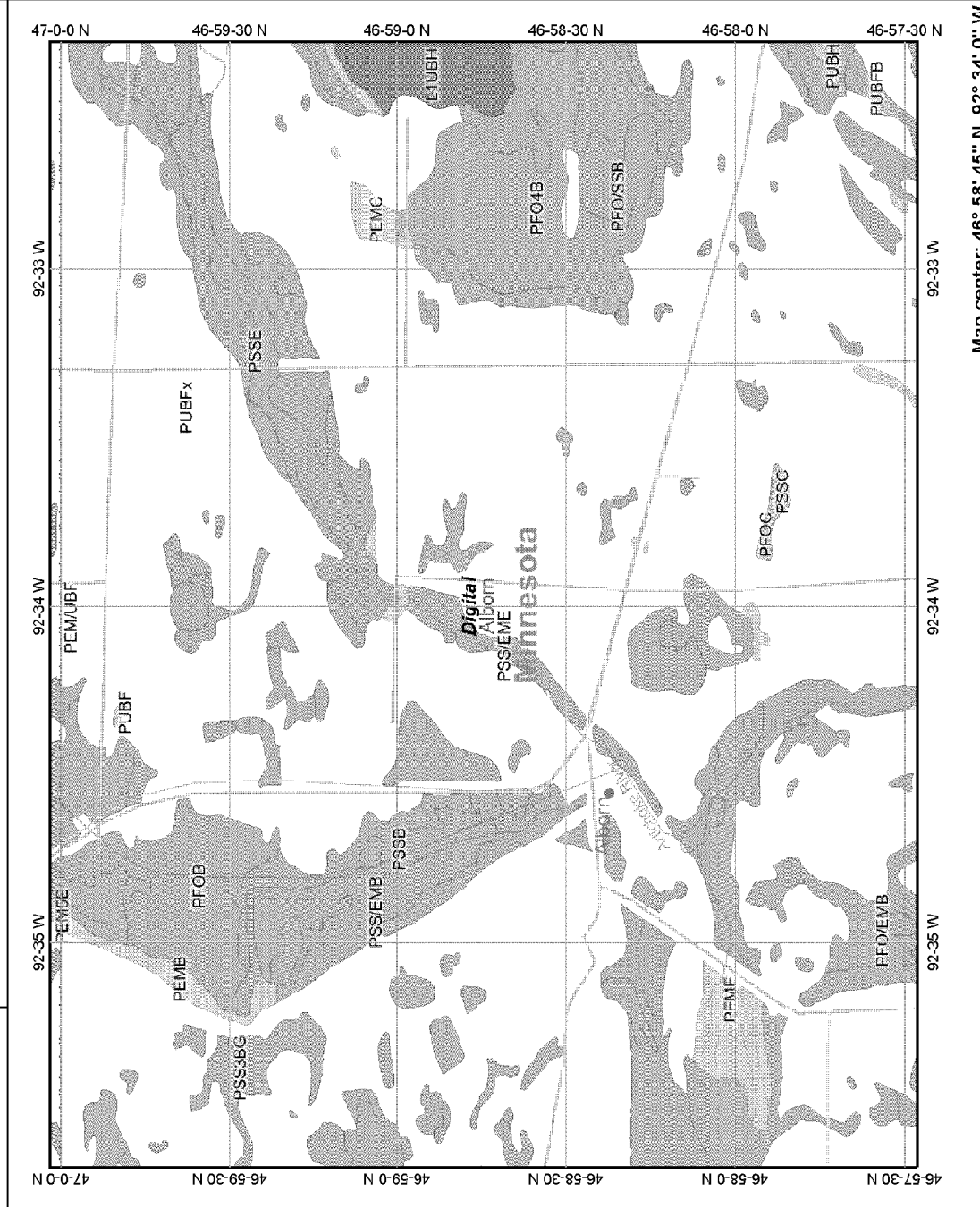
SITE RANKING: 11

ALBORN - HIGHWAY 7 CWI Well Map



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Alborn Hwy 7 Wetland Map



Legend

- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:33,348

Map center: 46° 58' 45" N, 92° 34' 0" W

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Alborn-Highway 7 What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfills
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
660881

County St. Louis
 Quad Alborn
 Quad ID 246A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/10/2002
 Update Date 04/17/2008
 Received Date

Well Name GOUER, JULIE L.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 52 18 W 24 ACC 1342 ft.		137 ft.	137 ft.	09/21/2001	
Elevation Method Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Driven			
Well Address 6386 CHURCH RD ALBORN MN 55702 Geological Material Color Hardness From To SAND BROWN MEDIUM 0 40 CLAY/SAND BROWN MEDIUM 40 90 CLAY BROWN MEDIUM 90 120 SAND BROWN MEDIUM 120 130 GRAVEL BROWN MEDIUM 130 137		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		6 in. to 137 ft.	18.97 lbs./ft.	6 in. to 137 ft.	
		Open Hole from ft. to ft.			
		Screen NO Make Type			
		Diameter	Slot/Gauze	Length	Set Between
		Static Water Level 42 ft. from land surface Date Measured 09/2/2001			
PUMPING LEVEL (below land surface) 100 ft. after 4 hrs. pumping 12 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Department of Health Unique Number Verification N/A System UTM - Nad83, Zone15, Meters		Method GPS SA Off (averaged) Date N/A X: 533051 Y: 5202681			
Nearest Known Source of Contamination 120 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification Davidson R. Well Co. 57032 GRAVES, A. License Business Name Lic. Or Reg. No. Name of Driller					
First Bedrock Last Strat Unknown deposit type		Aquifer Depth to Bedrock ft.			
County Well Index Online Report		660881		Printed 9/2/2008 HE-01205-07	

Minnesota Unique Well No.

139515

County St. Louis
 Quad Alborn
 Quad ID 246A

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**

Entry Date 02/24/1988
 Update Date 04/17/2008
 Received Date

Minnesota Statutes Chapter 103I

Well Name LIND, BRJCE		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		106 ft.	106 ft.	10/15/1977
52	18 W 24 BDD	Elevation Method Calc from DEM (USGS 7.5 m or equiv.)		
Drilling Method Cable Tool		Drilling Fluid		
		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		From -ft. to Ft.		
Use Domestic		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1.5 ft.		
Casing Diameter		Weight	Hole Diameter	
7 in. to 106 ft.		23 lbs./ft.		
Open Hole from ft. to ft.		Screen NO Make Type		
Diameter		Slot/Gauze	Length	Set Between
Geological Material		Color	Hardness	From To
SAND		BROWN		0 23
GRAVEL		BROWN		23 99
CLAY		BROWN		99 106
Static Water Level		50 ft from land surface Date Measured 10/15/1977		
PUMPING LEVEL (below land surface)		10 ft. after 3 hrs. pumping 5 g.p.m.		
Well Head Completion		Pitless adapter manufacturer Model		
<input checked="" type="checkbox"/> Casing Protection		<input checked="" type="checkbox"/> 12 in. above grade		
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
LOC: NORTHERLY 550FT OF EASTERLY 500FT.				
Located Minnesota Department of Health		Method GPS Differentially Corrected		
Unique Number Verification N/A		Date N/A		
System UTM - Nad83, Zone15, Meters		X: 532995 Y: 5202578		
Nearest Known Source of Contamination		_ft _direction _type		
<input checked="" type="checkbox"/> Well disinfected upon completion?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Pump <input checked="" type="checkbox"/> Not Installed Date Installed		Manufacturer's name Model number HP Volts		
Length of drop Pipe_ft Capacity_g.p.m Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Variance Was a variance granted from the MDH for this well?		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Well Contractor Certification		Hole in One Drilling		
License Business Name		69442	DORN, GILBERT	
L.c. Or Reg No.		Name of Driller		
First Bedrock		Aquifer		
Last Strat Unknown deposit type		Depth to Bedrock ft.		
County Well Index Online Report		139515		Printed 9/2/2008
				HE-01205-07

SITE SUMMARY

Site Name: Alborn - Seville Road, Saginaw

Fire Department: Alborn Fire Department
6955 Stoney Brook Road
Alborn, MN 55702

Site Contact: Jay Tremblay, Training Officer
218-345-6358 (training officer)
218-345-6314 (fire chief)
albornfire@aol.com
busyboy222@juno.com

Training Location: Albrook School, 7427 Seville Road, Saginaw, MN 55779
Demonstration site

Training Location Coordinates (X,Y): 541171.6, 5188857.06

Type of foam used in training: Class B AFFF: Ansulite
Class A: Ansul Silv-Ex

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class B AFFF: 5 gallons
Class A: 15 gallons

Nearest surface water: Johnson Creek located approximately 1 mile southwest

Nearest wetland: Less than 1/4 mile to the south and to the north

Karst Area: Training site not located in a karst area

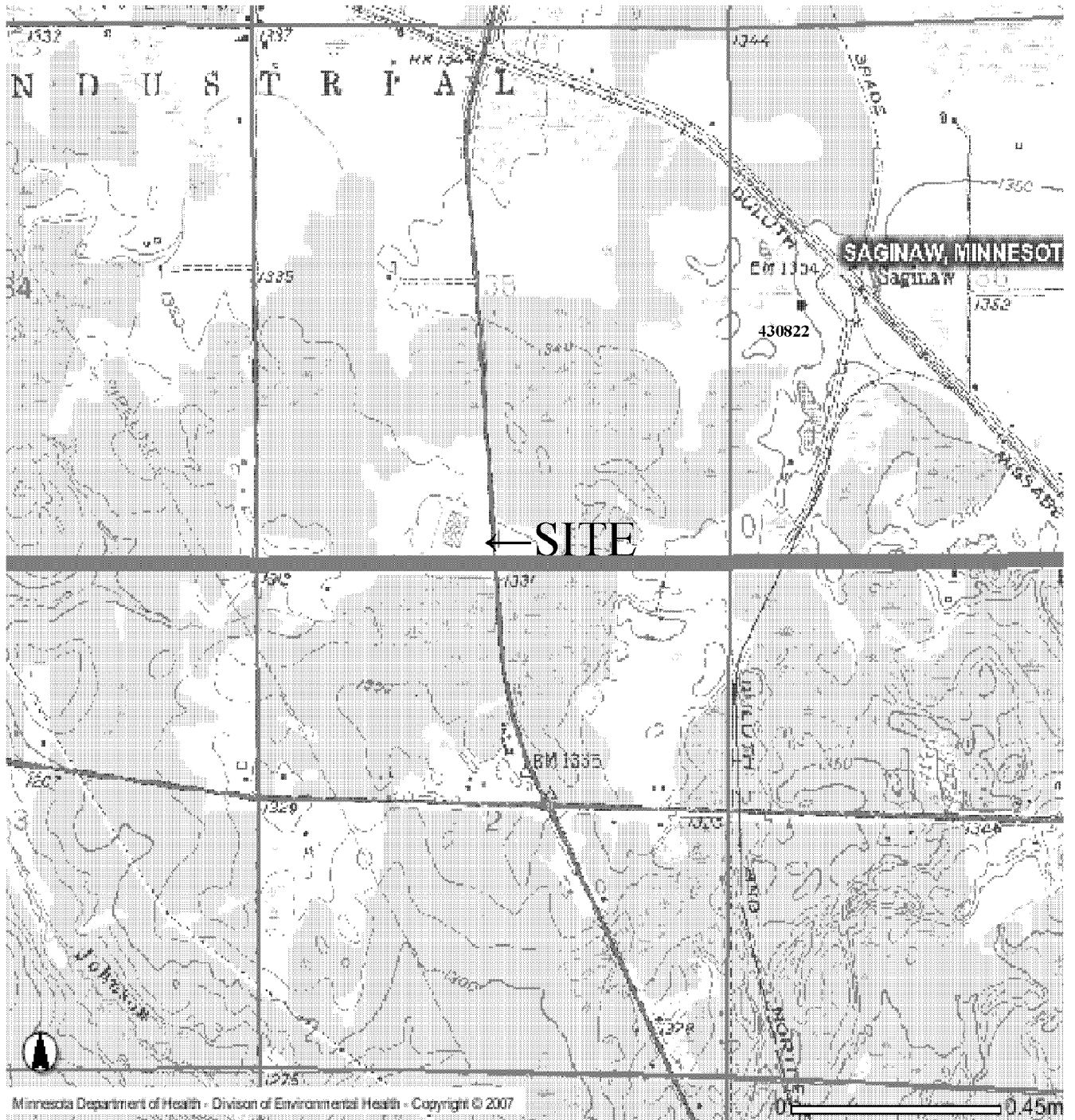
Nearest water well: 1/2 to 3/4 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

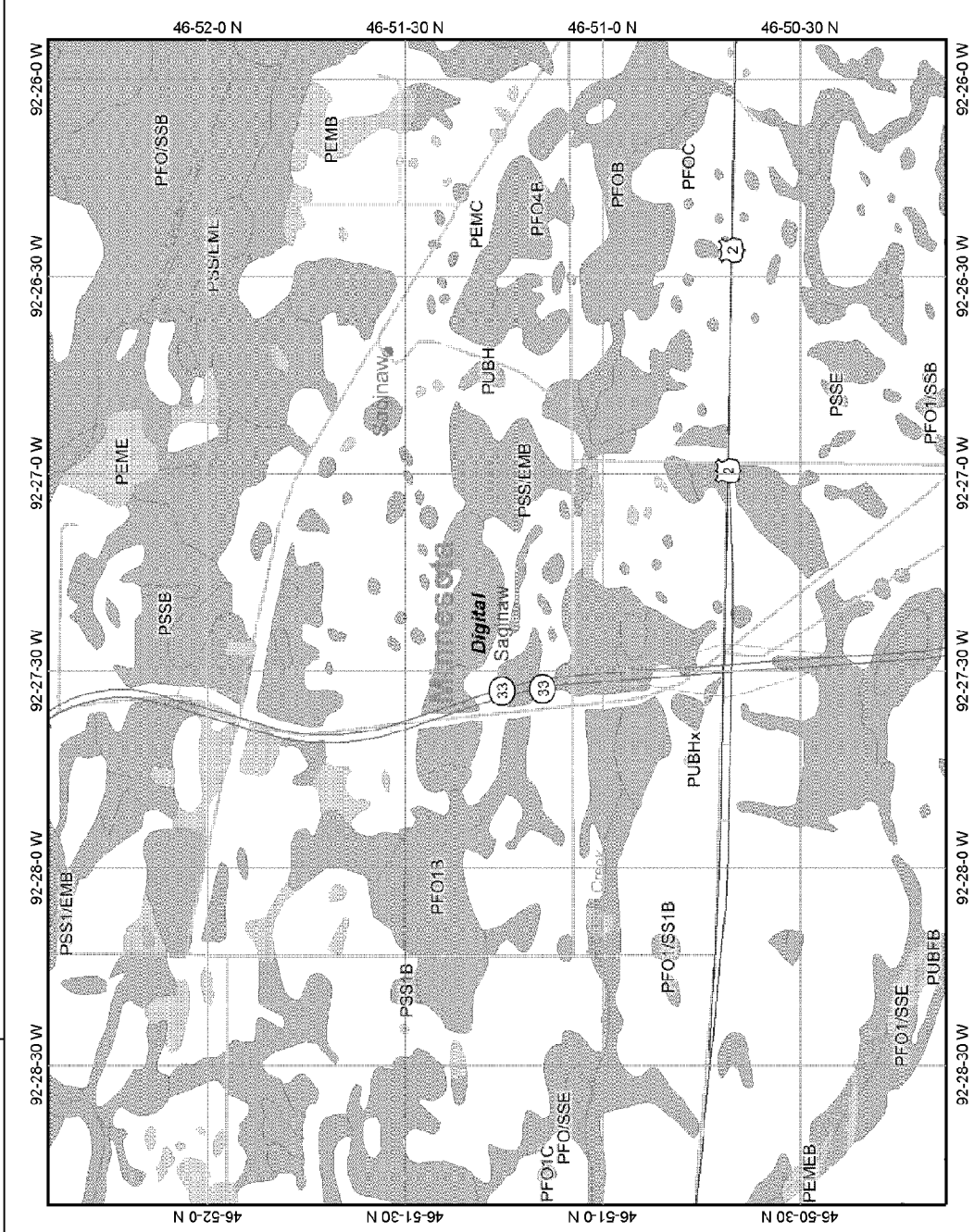
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 7

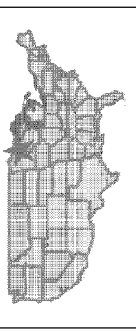
ALBORN - SEVILLE ROAD CWI Well Map



Alborn - Seville Rd Wetland Map



Map center: 46° 51' 16" N, 92° 27' 22" W



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Scale: 1:29,483

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Alborn-Seville Rd *What's In My Neighborhood* Map



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 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - HFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfills
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.

430822

County St. Louis
 Quad Saginaw
 Quad ID 245C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD

Entry Date 11/07/1990
 Update Date 11/15/2007
 Received Date

Minnesota Statutes Chapter 103I

<p>Well Name SCHEPER, MAX Township Range Dir Section Subsections Elevation 1350 ft. 51 17 W 35 Elevation Method Calc from DEM (USGS 7.5 m or equiv.)</p>	<p>Well Depth 28 ft. Depth Completed 28 ft. Date Well Completed 06/22/1988 Drilling Method Air Rotary</p>																																								
<p>Well Address 4665 VIBERT RD SAGINAW MN 55779</p> <p>Geological Material</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>BROWN</td> <td>SOFT</td> <td>0</td> <td>2</td> </tr> <tr> <td>BROWN</td> <td>HARD</td> <td>2</td> <td>15</td> </tr> <tr> <td>BROWN</td> <td>HARD</td> <td>15</td> <td>20</td> </tr> <tr> <td>BROWN</td> <td>HARD</td> <td>20</td> <td>28</td> </tr> </tbody> </table>	Color	Hardness	From	To	BROWN	SOFT	0	2	BROWN	HARD	2	15	BROWN	HARD	15	20	BROWN	HARD	20	28	<p>Drilling Fluid Water Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.</p> <p>Use Domestic</p> <p>Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>6 in. to 28 ft.</td> <td>18.97 lbs./ft.</td> <td>6 in. to ft.</td> </tr> </tbody> </table> <p>Open Hole from ft. to ft.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Screen NO</th> <th>Make</th> <th>Type</th> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Static Water Level 8 ft from land surface Date Measured 06/22/1988 PUMPING LEVEL (below land surface) 25 ft. after 1 hrs. pumping 30 g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p>	Casing Diameter	Weight	Hole Diameter	6 in. to 28 ft.	18.97 lbs./ft.	6 in. to ft.	Screen NO	Make	Type	Diameter	Slot/Gauze	Length	Set Between							
	Color	Hardness	From	To																																					
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	BROWN	HARD	2	15																																					
	BROWN	HARD	15	20																																					
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	Screen NO	Make	Type	Diameter	Slot/Gauze	Length	Set Between																																		
<p>REMARKS LOC: 200 FT SOUTH FROM 4665 VIBERT RD. SAGINAW, MN 55779.</p> <p>Located Minnesota Department of Health Unique Number Verification N/A System UTM - Nad83, Zone15, Meters Method GPS SA Off (averaged) Date N/A X: 542229 Y: 5189552</p>	<p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Nearest Known Source of Contamination 100 feet North West direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Submersible Material</p>																																								
<p>First Bedrock Last Strat Gravel (+larger) Aquifer Depth to Bedrock ft.</p>	<p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Sunnarborg Well Co. 09437 SUNNARBORG C License Business Name Lic. Or Reg. No. Name of Driller</p>																																								
<p>County Well Index Online Report</p>	<p>430822 Printed 9/2/2008 HE-01205-07</p>																																								

- Alexandria

SITE SUMMARY

Site Name: Alexandria

Fire Department: Alexandria Fire Department
302 Fillmore Street
Alexandria, MN 56308

Site Contact: Dennis Stark, Fire Chief
320-763-6488

Training Location: Various, including VoTech School, Magellan tank farm, and live burns. Ranking based on Magellan tank farm location.

Training Location Coordinates (X,Y): 314446.7, 5085004.48

Type of foam used in training: AFFF: Fire chief unsure of foam brand, 3M-brand assumed
Class A: Fire chief unsure of foam brand

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer, city has stormwater retention pond system

Annual foam use: AFFF: less than 10 gallons
Class A: more than 10 gallons

Nearest surface water: Less than 1/4 mile southeast

Nearest wetland: 1/4 to 1/2 mile north

Karst Area: Site is not located in a karst area

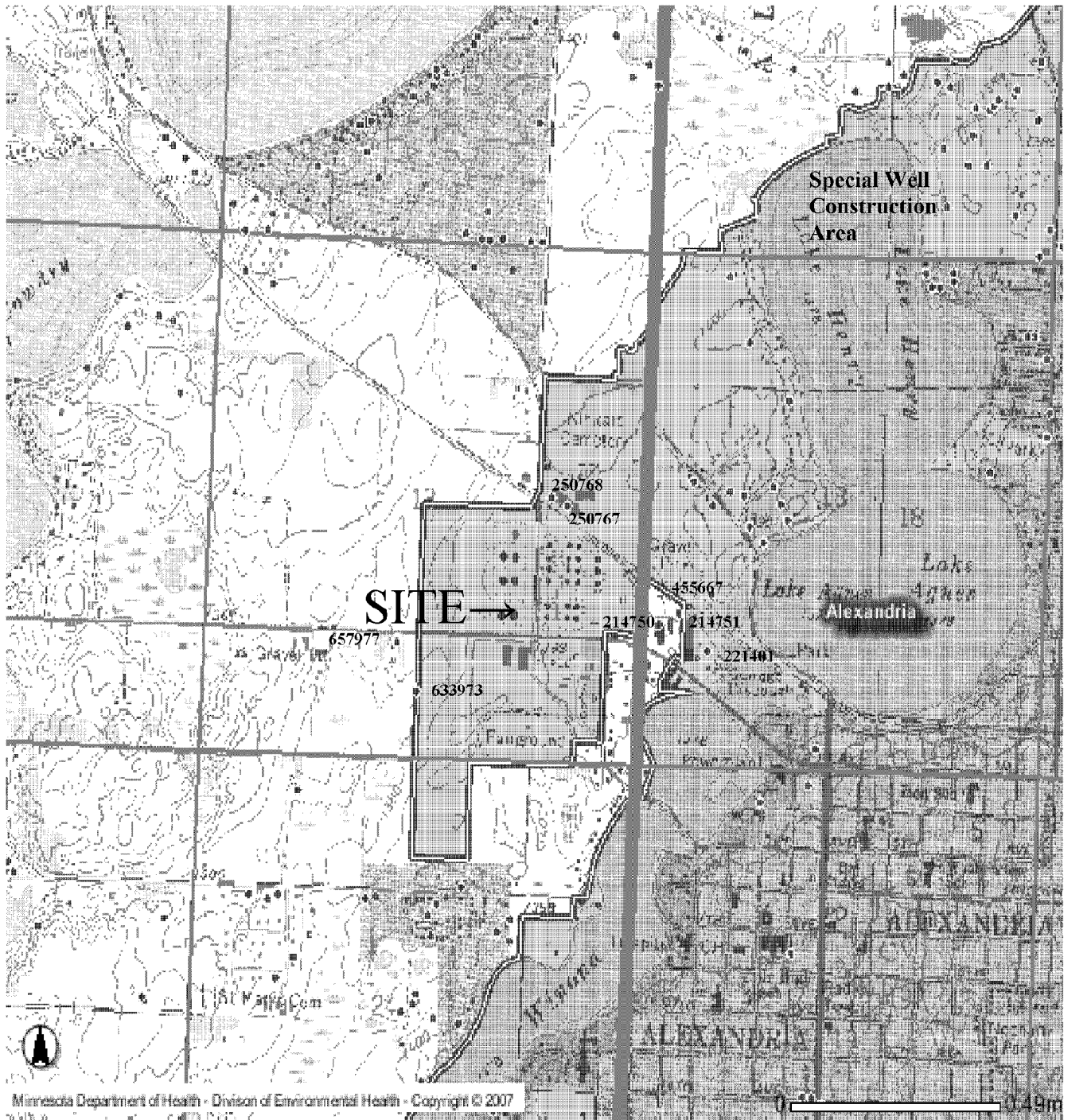
Nearest water well: Less than 1/4 mile northeast and southwest

Nearest Wellhead Protection Area: Training site is located within a WPA

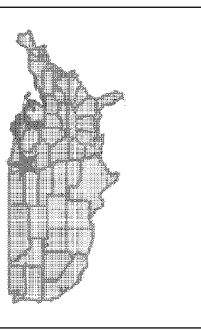
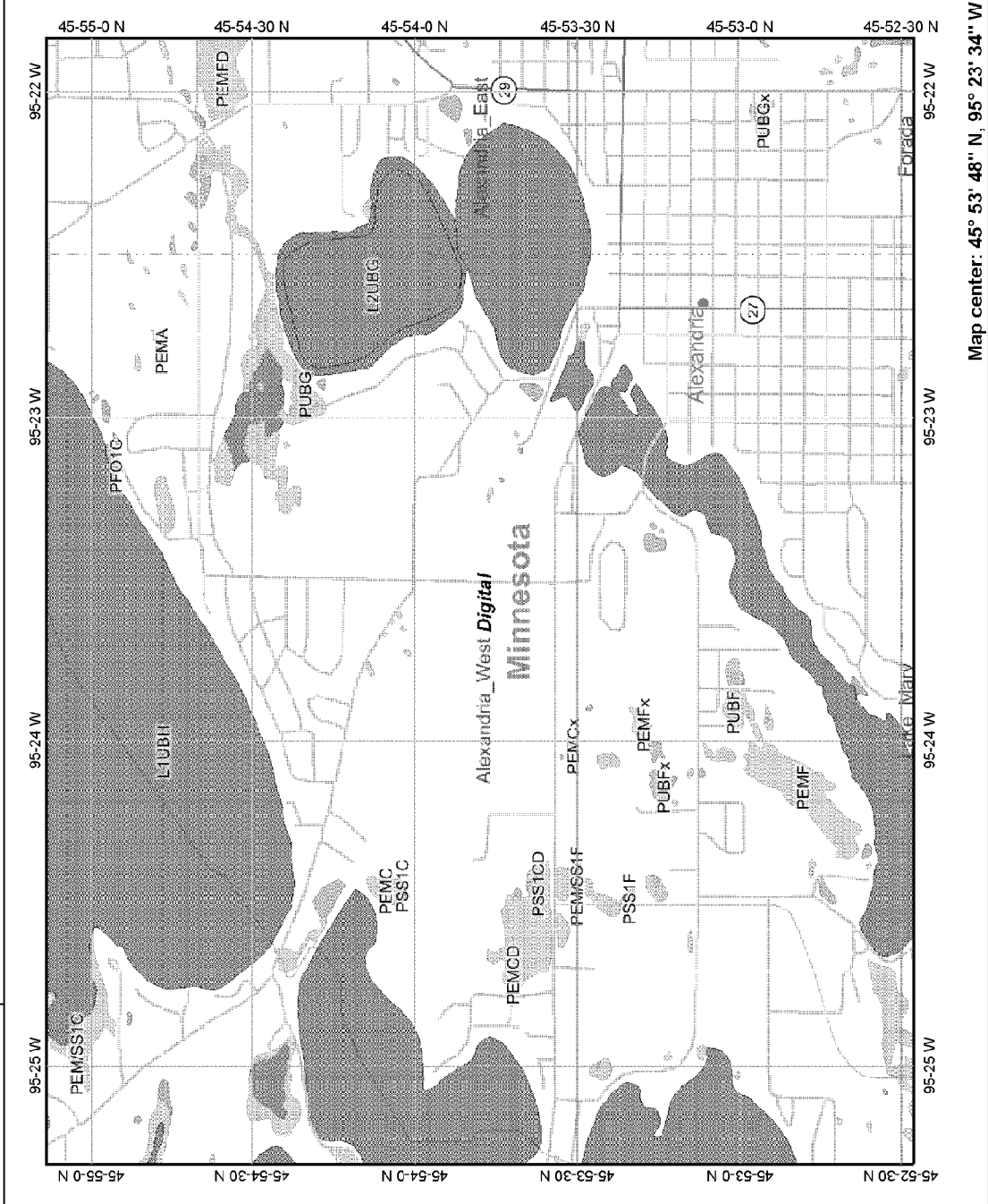
Nearest Source Water Assessment Area: Training site is located within a SWAA

SITE RANKING: 22

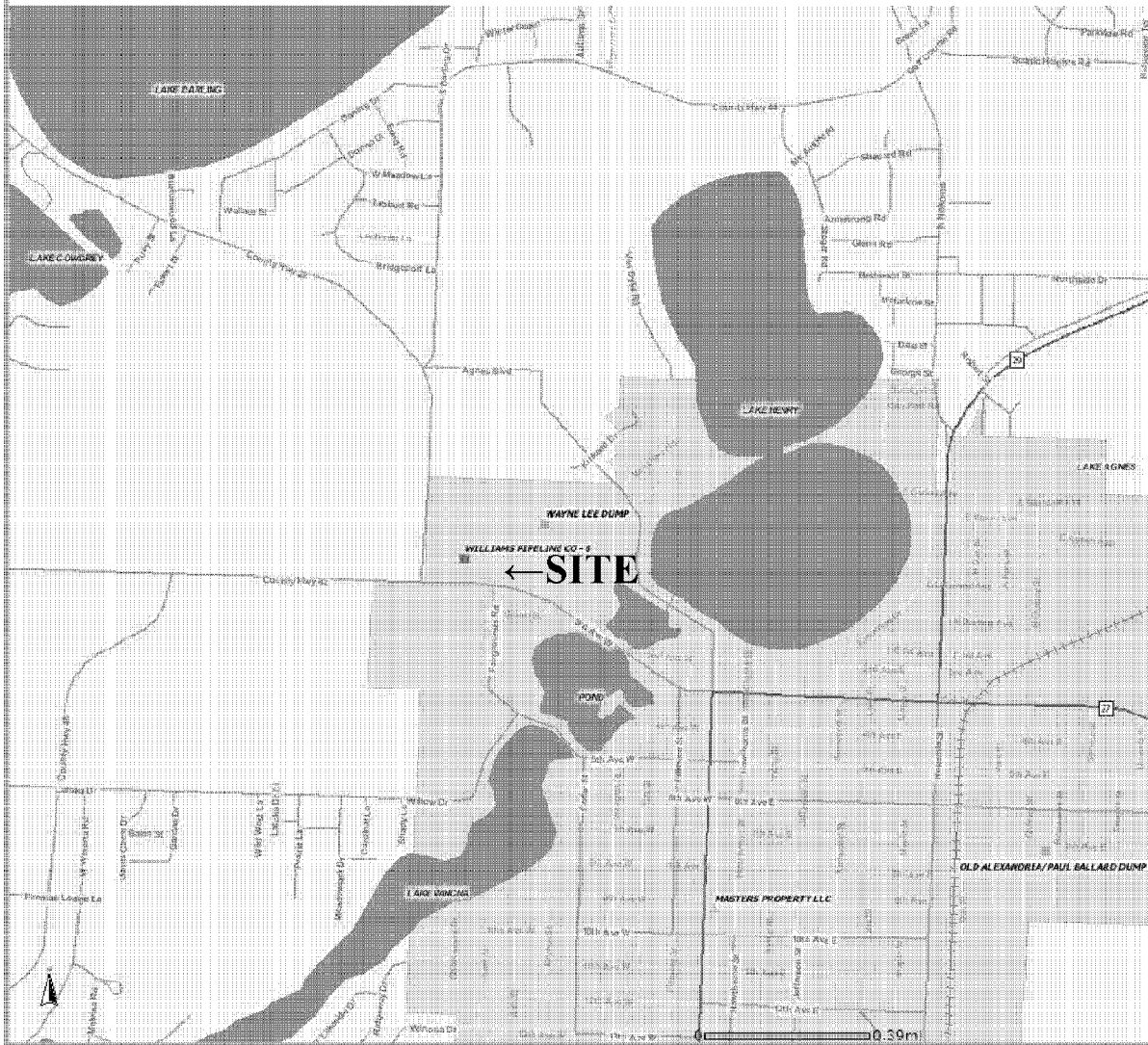
ALEXANDRIA CWI Well Map



Alexandria Wetland Map



Alexandria What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
214750

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/07/1988
 Update Date 03/11/2005
 Received Date

Well Name LAND O' LAKES 1		Well Depth 108 ft.	Depth Completed 108 ft.	Date Well Completed 00/00/1943
Township Range Dir Section Subsections Elevation 128 37 W 18 CBCDDA Elevation Method		1402 ft. 7.5 minute topographic map (+/- 5 feet)		
Drilling Method Cable Tool		Drilling Fluid --		
Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		From -ft. to Ft.		
Use Commercial		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.		
Casing Diameter 12 in. to 92 ft.		Weight lbs./ft.	Hole Diameter	
Open Hole from ft. to ft.		Screen YES Make Type brass		
Diameter 12		Slot/Gauze	Length 16	Set Between 92 ft. and 108 ft.
Geological Material DRIFT		Color	Hardness	From 0 To 108
Static Water Level 40 ft. from Land surface Date Measured 00/00/1943		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.		
Well Head Completion Pitless adapter manufacturer Model		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination ___feet ___direction ___type		
Unique Number Verification Information from owner Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
System UTM - Nad83, Zone15, Meters X: 314904 Y: 5084956		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 04/07/1944		
		Manufacturer's name POMONA Model number __ HP 40 Volts		
		Length of drop Pipe __ft. Capacity 500 g.p.m. Type Turbine Material		
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock		Well Contractor Certification		
Last Strat Unknown deposit type		McCarthy Well Co. 27022		
Aquifer Qual. Buried Artes. Aquifer Depth to Bedrock ft.		License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		214750		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
214751

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/07/1988
 Update Date 03/11/2005
 Received Date

Well Name LAND O' LAKES 2 Township Range Dir Section Subsections Elevation 1395 ft. 128 37 W 18 CBCDDB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 140 ft. Depth Completed 131 ft. Date Well Completed 04/00/1947 Drilling Method Cable Tool																																																											
Well Address ALEXANDRIA MN 56308 <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr><td>SAND AND GRAVEL</td><td></td><td></td><td>0</td><td>40</td></tr> <tr><td>BLUE CLAY</td><td></td><td></td><td>40</td><td>88</td></tr> <tr><td>HARDPAN</td><td></td><td></td><td>88</td><td>96</td></tr> <tr><td>SAND - SOME GRAVEL</td><td></td><td></td><td>96</td><td>112</td></tr> <tr><td>SAND & GRAVEL</td><td></td><td></td><td>112</td><td>122</td></tr> <tr><td>SAND AND SOME GRAVEL</td><td></td><td></td><td>122</td><td>133</td></tr> <tr><td>FINE SAND</td><td></td><td></td><td>133</td><td>135</td></tr> <tr><td>SAND AND CLAY</td><td></td><td></td><td>135</td><td>140</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND AND GRAVEL			0	40	BLUE CLAY			40	88	HARDPAN			88	96	SAND - SOME GRAVEL			96	112	SAND & GRAVEL			112	122	SAND AND SOME GRAVEL			122	133	FINE SAND			133	135	SAND AND CLAY			135	140	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Commercial Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>20 in. to 96 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make Type <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>12</td> <td></td> <td>26.7</td> <td>96 ft. and 131 ft.</td> </tr> </tbody> </table> Static Water Level 36 ft. from Land surface Date Measured 04/00/1947 PUMPING LEVEL (below land surface) 58.8 ft. after 5 hrs. pumping 542 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	20 in. to 96 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	12		26.7	96 ft. and 131 ft.
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REMARKS THIS IS A GRAVEL PACK WELL. Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 314980 Y: 5084989	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 04/00/1947 Manufacturer's name PAMONA Model number ___ HP 30 Volts 220 Length of drop Pipe 80 ft. Capacity 400 g.p.m. Type Turbine Material Steel (black or low carbon)																																																											
First Bedrock Last Strat Clay & sand Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Keys Well Co. 62012 WALIN, C. License Business Name Lic. Or Reg. No. Name of Driller																																																											
County Well Index Online Report	214751																																																											
Printed 9/12/2008 HE-01205-07																																																												

Minnesota Unique Well No.
221401

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/07/1988
 Update Date 03/11/2005
 Received Date

Well Name ALEXANDRIA TW-4 Township Range Dir Section Subsections Elevation 1395 ft. 128 37 W 18 CCABBD Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 115 ft. Depth Completed 115 ft. Date Well Completed 11/00/1954 Drilling Method Cable Tool						
Well Address ALEXANDRIA MN 56308 Geological Material Color Hardness From To TOP SOIL 0 4 SAND & GRAVEL 4 35 CLAY 35 70 CLAY & GRAVEL 70 95 SAND & GRAVEL 95 110 FINE SAND 110 115	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.						
	Use Test well						
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.						
	<table style="width:100%; border: none;"> <tr> <td style="text-align: center;">Casing Diameter</td> <td style="text-align: center;">Weight</td> <td style="text-align: center;">Hole Diameter</td> </tr> </table>	Casing Diameter	Weight	Hole Diameter			
	Casing Diameter	Weight	Hole Diameter				
	Open Hole from ft. to ft. Screen Make Type						
	<table style="width:100%; border: none;"> <tr> <td style="text-align: center;">Diameter</td> <td style="text-align: center;">Slot/Gauze</td> <td style="text-align: center;">Length</td> <td style="text-align: center;">Set Between</td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between		
	Diameter	Slot/Gauze	Length	Set Between			
	Static Water Level ft. from Date Measured						
	PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)							
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 315085 Y: 5084873	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
First Bedrock Aquifer Last Strat Sand Depth to Bedrock ft.	Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP _ Volts Length of drop Pipe _ft. Capacity _g.p.m Type Material						
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification <table style="width:100%; border: none;"> <tr> <td style="text-align: center;"><u>Keys Well Co.</u></td> <td style="text-align: center;">62012</td> <td style="text-align: center;"><u>KEMPER R.</u></td> </tr> <tr> <td style="text-align: center;">License Business Name</td> <td style="text-align: center;">Lic. Or Reg. No.</td> <td style="text-align: center;">Name of Driller</td> </tr> </table>	<u>Keys Well Co.</u>	62012	<u>KEMPER R.</u>	License Business Name	Lic. Or Reg. No.	Name of Driller
<u>Keys Well Co.</u>	62012	<u>KEMPER R.</u>					
License Business Name	Lic. Or Reg. No.	Name of Driller					

221401

Printed 9/12/2008

HE-01205-07

Minnesota Unique Well No.
250767

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 09/05/1996
 Update Date 08/29/2001
 Received Date

Well Name ALEXANDRIA EXTRUSION 1		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 128 38 W 13 ADCCDA Elevation Method 1398 ft. 7.5 minute topographic map (+/- 5 feet)		100 ft.	100 ft.	
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Industrial				
Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Above/Below ft.		
Casing Diameter		Weight	Hole Diameter	
6 in. to ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen YES Make Type				
Diameter		Slot/Gauze	Length	Set Between
NO RECORD				
Static Water Level ft. from Date Measured				
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.				
Well Head Completion Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS ONLY ONE WELL ACTIVE NO 2 OWNER 6-8-2001.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000)				
Unique Number Verification Information from owner Date N/A				
System UTM - Nad83, Zone15, Meters X: 314564 Y: 5085325				
Nearest Known Source of Contamination _feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number __ HP _ Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Minnesota Dept. of Natural Resources		MNDNR		
License Business Name		Lic. Or Reg. No. Name of Driller		
First Bedrock				
Last Strat Unknown deposit type		Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.		
County Well Index Online Report		250767		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
250768

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 09/05/1996
 Update Date 08/29/2001
 Received Date

Well Name ALEXANDRIA EXTRUSION 2		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 128 38 W 13 ADCCDB Elevation Method 1398 ft. 7.5 minute topographic map (+/- 5 feet)		110 ft.	110 ft.	
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Industrial				
Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
6 in. to ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen YES Make Type				
Diameter		Slot/Gauze	Length	Set Between
NO RECORD				
Static Water Level ft. from Date Measured				
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.				
Well Head Completion Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS ONLY ONE WELL ACTIVE WELL NO.2 OWNER 6-8-20C1.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000)				
Unique Number Verification Information from owner Date N/A				
System UTM - Nad83, Zone15, Meters X: 314505 Y: 5085353				
Nearest Known Source of Contamination _feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number __ HP _ Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Minnesota Dept. of Natural Resources		MNDNR		
License Business Name		Lic. Or Reg. No. Name of Driller		
First Bedrock				
Last Strat Unknown deposit type		Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.		
County Well Index Online Report		250768		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
455667

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 01/13/1992
 Update Date 08/28/2001
 Received Date

Well Name LEE, WAYNE Township Range Dir Section Subsections Elevation 1390 ft. 128 37 W 18 CBDADB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 81 ft. Depth Completed 81 ft. Date Well Completed 04/21/1989 Drilling Method Non-specified Rotary																																																	
Well Address 707 VAN DYKE RD ALEXANDRIA MN 56308 <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>TOPSOIL</td> <td>BLACK</td> <td>SOFT</td> <td>0</td> <td>1</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>1</td> <td>4</td> </tr> <tr> <td>SAND</td> <td>GRAY</td> <td>SOFT</td> <td>4</td> <td>16</td> </tr> <tr> <td>CLAY</td> <td>BROWN</td> <td>MEDIUM</td> <td>16</td> <td>32</td> </tr> <tr> <td>CLAY</td> <td>GRAY</td> <td>MEDIUM</td> <td>32</td> <td>62</td> </tr> <tr> <td>SAND</td> <td>GRAY</td> <td>MEDIUM</td> <td>62</td> <td>81</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	TOPSOIL	BLACK	SOFT	0	1	SAND	BROWN	SOFT	1	4	SAND	GRAY	SOFT	4	16	CLAY	BROWN	MEDIUM	16	32	CLAY	GRAY	MEDIUM	32	62	SAND	GRAY	MEDIUM	62	81	Drilling Fluid Revert Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1.5 ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>8 in. to 71 ft.</td> <td>lbs./ft.</td> <td>12 in. to 81 ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make COOK Type stainless steel <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>70</td> <td>10</td> <td>71 ft. and 81 ft.</td> </tr> </tbody> </table> Static Water Level 19 ft. from Land surface Date Measured 04/21/1989 PUMPING LEVEL (below land surface) 41.1 ft. after 7 hrs. pumping 425 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	8 in. to 71 ft.	lbs./ft.	12 in. to 81 ft.	Diameter	Slot/Gauze	Length	Set Between	8	70	10	71 ft. and 81 ft.
	Geological Material	Color	Hardness	From	To																																													
	TOPSOIL	BLACK	SOFT	0	1																																													
	SAND	BROWN	SOFT	1	4																																													
	SAND	GRAY	SOFT	4	16																																													
	CLAY	BROWN	MEDIUM	16	32																																													
	CLAY	GRAY	MEDIUM	32	62																																													
	SAND	GRAY	MEDIUM	62	81																																													
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	8 in. to 71 ft.	lbs./ft.	12 in. to 81 ft.																																															
Diameter	Slot/Gauze	Length	Set Between																																															
8	70	10	71 ft. and 81 ft.																																															
NO REMARKS	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Well grouted, type unknown from to ft.																																																	
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from owner Date 08/17/2001 System UTM - Nad83, Zone15, Meters X: 315101 Y: 5085049	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 05/26/1989 Manufacturer's name VALLEY Model number 8SC450 HP 15 Voits 480 Length of drop Pipe 50 ft. Capacity ___g.p.m. ___type Submersible Material Steel (black or low carbon)																																																	
First Bedrock Last Strat Sand-gray Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Traut S.m. Well Co. 21535 NEYENS, J. License Business Name Lic. Or Reg. No. Name of Driller																																																	
County Well Index Online Report	455667	Printed 9/12/2008 HE-01205-07																																																

Minnesota Unique Well No.
633973

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 07/17/2000
 Update Date 03/11/2005
 Received Date

Well Name SHERIFF'S MAINTENCE BLDG		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		101 ft.	101 ft.	09/21/1999
128 38 W 13 CDADDC Elevation Method		7.5 minute topographic map (+/- 5 feet)		
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Bentonite		From -ft. to Ft.		
Use Domestic				
Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
4 in. to 97 ft.		lbs./ft.	8 in. to 101 ft.	
Open Hole from ft. to ft.				
Screen YES Make COOK Type stainless steel				
Diameter		Slot/Gauze	Length	Set Between
4		12	4	97 ft. and 101 ft.
Geological Material				
TOP SOIL	Color BLACK	Hardness SOFT	From 0	To 1
GRAVEL	BROWN	SOFT	1	10
CLAY	GRAY	MEDIUM	10	22
GRAVEL	BROWN	SOFT	22	27
CLAY	GRAY	MEDIUM	27	34
CLAY	TAN	MEDIUM	34	50
DIRTY GRAVEL	GRAY	SOFT	50	60
SAND	GRAY	SOFT	60	101
Static Water Level				
15 ft. from Land surface Date Measured 09/21/1999				
PUMPING LEVEL (below land surface)				
100 ft. after 2 hrs. pumping 150 g.p.m.				
Well Head Completion				
Pitless adapter manufacturer MAAS Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Bentonite from 0 to 30 ft.				
NO REMARKS				
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000)				
Unique Number Verification Tag on well Date N/A				
System UTM - Nad83, Zone15, Meters X: 313998 Y: 5084747				
Nearest Known Source of Contamination				
__feet __direction __type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 02/28/2000				
Manufacturer's name AEROMOTOR Model number A+12-50 HP 0.5 Volts				
Length of drop Pipe 40 ft. Capacity 20 g.p.m Type Submersible Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
First Bedrock		Traut S.m. Well Co.		21535
Last Strat Sand-gray		License Business Name		Lic. Or Reg. No. Name of Driller
Aquifer Quat Buried Artes. Aquifer		Depth to Bedrock ft.		
County Well Index Online Report		633973		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.

657977

County Douglas
 Quad Alexandria West
 Quad ID 180B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/05/2002
 Update Date 03/11/2005
 Received Date

Well Name SWEDBURG WOOD PRODUCTS		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		78 ft.	78 ft.	06/19/2001
128 38 W 13 CDB	Elevation Method	Calc from DEM (USGS 7.5 m or equiv.)		
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Bentonite		From ft. to ft.		
Use Domestic				
Casing Type Plastic Joint Solvent Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
4 in. to 74 ft.		lbs./ft.	7 in. to 78 ft.	
Open Hole from ft. to ft.				
Screen YES Make JOHNSON Type stainless steel				
Diameter		Slot/Gauze	Length	Set Between
4		15	4	74 ft. and 78 ft.
Static Water Level				
16 ft. from Land surface Date Measured 06/19/2001				
PUMPING LEVEL (below land surface)				
40 ft. after 1 hrs. pumping 40 g.p.m.				
Well Head Completion				
Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: High solids bentonite from 0 to 30 ft. 3 bags				
Grout Material: Cuttings from 30 to 70 ft.				
Nearest Known Source of Contamination				
50 feet W direction Septic tank/drain field type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP Volts				
Length of drop Pipe ft. Capacity g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Weisel K.m. Well Co.		21532	WEISEL K.	
License Business Name		Lic. Or Reg. No.	Name of Driller	
First Bedrock		Aquifer		
Last Strat		Depth to Bedrock ft.		
County Well Index Online Report		657977		Printed 9/12/2008 HE-01205-07

- **Brooklyn Center**

- Brooklyn Boulevard
- Dupont Avenue

SITE SUMMARY

Site Name: Brooklyn Center - Brooklyn Boulevard

Fire Department: Brooklyn Center Fire Department
6301 Shingle Creek Parkway
Brooklyn Center, MN 55430

Site Contact: Not specified

Training Location: Fire Station 1, 6250 Brooklyn Blvd., Brooklyn Center

Training Location Coordinates (X,Y): 474220.95, 4990604.8

Type of foam used in training: Not specified, use of 3M foam in training assumed

Foam training frequency: Quarterly

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: Not specified

Nearest surface water: Twin Lakes River located 1/2 to 3/4 mile southwest

Nearest wetland: Approximately 1/2 mile to the west and to the east

Karst Area: Training site located in transition or covered karst area

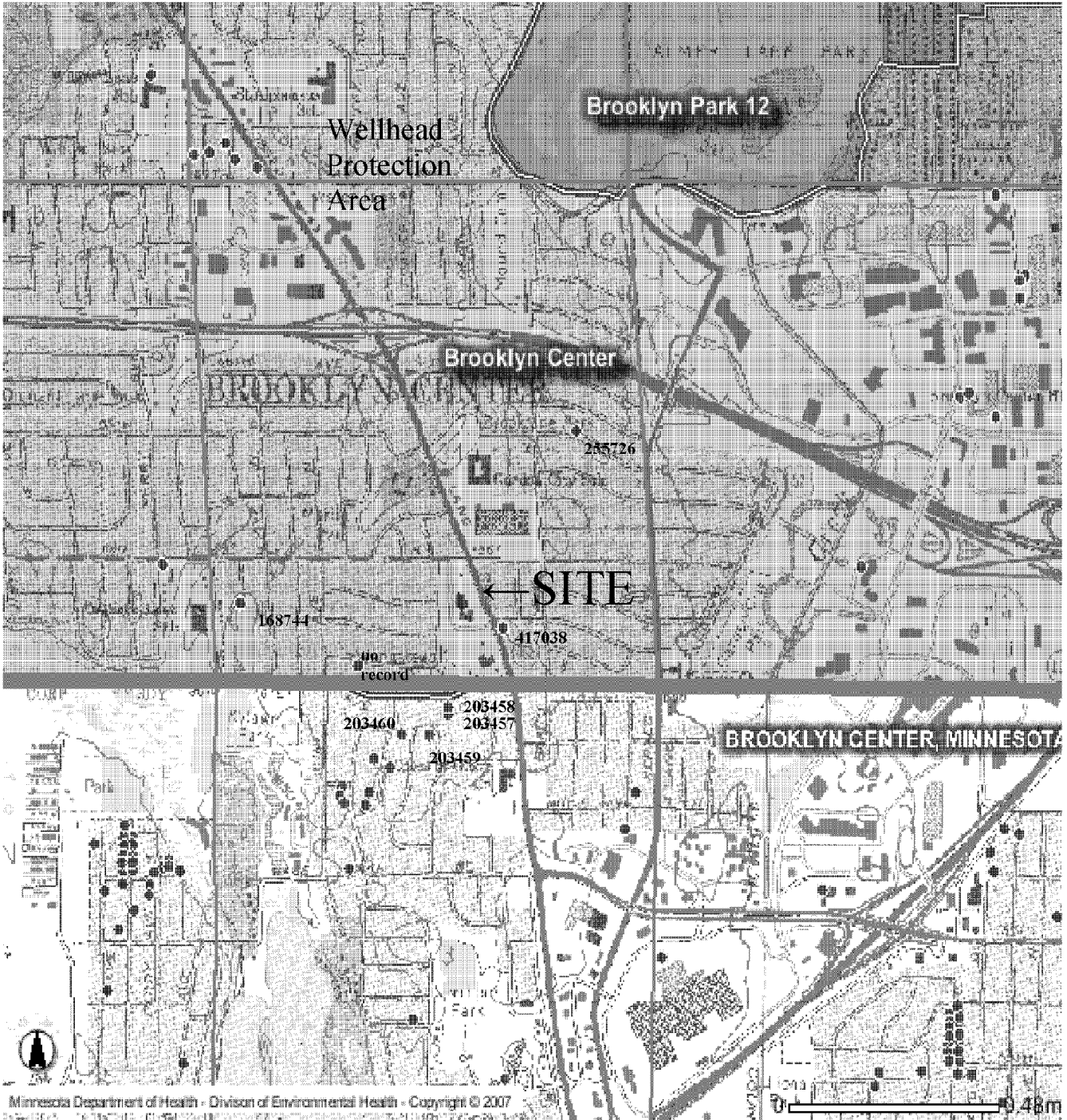
Nearest water well: <1/4 mile south

Nearest Wellhead Protection Area: Site is located within a WPA

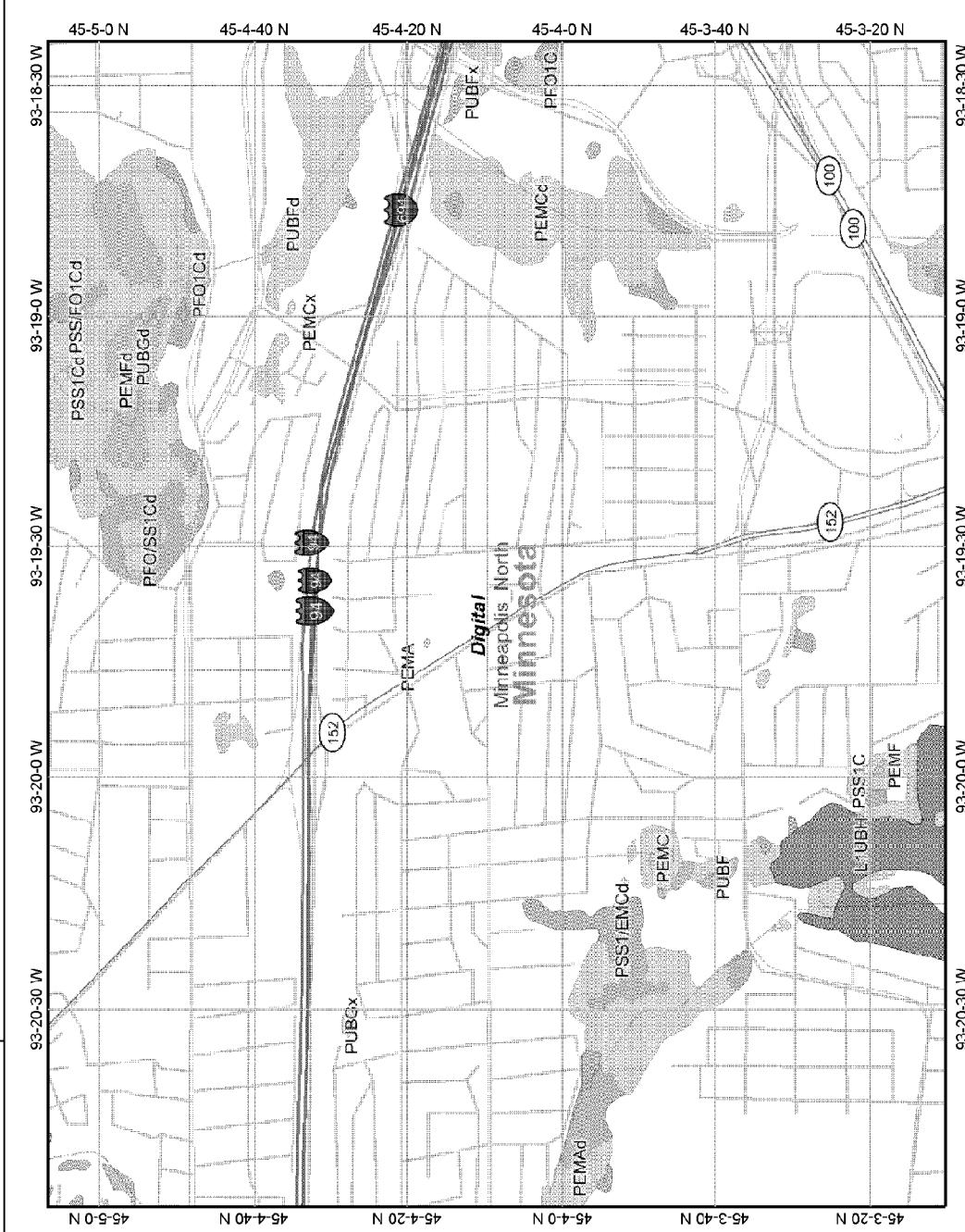
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 28

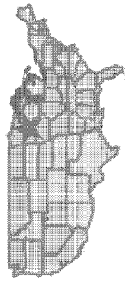
BROOKLYN CENTER - BROOKLYN BLVD CWI Well Map



Brooklyn Center - Brooklyn Blvd Wetland Map



Map center: 45° 4' 8" N, 93° 19' 40" W



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Scale: 1:25,184

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Brooklyn Center - Brooklyn Blvd. What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - MFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfills
 - Voluntary Investigation & Cleanup
 - ▲ RCRA TSD Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
168744

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name BROOKLYN CENTER ARBORETUM		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		114 ft.	114 ft.	10/13/1980
119 21 W 34 CCBDBC Elevation Method		7.5 minute topographic map (+/- 5 feet)		
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Other (specify in remarks)				
Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Above/Below 1 ft.		
Casing Diameter		Weight	Hole Diameter	
4 in. to 108 ft.		11 lbs./ft.	4 in. to 114 ft.	
Open Hole from 108 ft. to 114 ft.				
Screen NO Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material		Color	Hardness	From To
SAND		BROWN		0 10
SAND & GRAVEL		BLACK		10 25
CLAY		BLACK		25 31
SAND & GRAVEL		BROWN		31 58
CLAY		BROWN		58 64
WATER SAND		TAN		64 77
GRAVEL		BROWN		77 80
WATER SAND		TAN		80 107
SANDSTONE		TAN		107 114
Well Address		Static Water Level		
62ND AV		8 ft from land surface Date Measured 10/13/1980		
BROOKLYN CENTER MN 55429		PUMPING LEVEL (below land surface)		
		ft. after 4 hrs. pumping 35 g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey		Method Digitized - scale 1:24,000 or larger (Digitizing Table)		
Unique Number Verification Address		Date N/A		
System UTM - Nad83, Zone15, Meters		X: 473356 Y: 4990560		
		Grout Material: Bentonite from to ft.		
		Nearest Known Source of Contamination		
		_ftct _direction _type		
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 10/00/1980		
		Manufacturer's name RED JACKET Model number 8CC HP 1 Volts 230		
		Length of drop Pipe 63 ft. Capacity 21 g.p.m Type Submersible Material Galvanized		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock St.Peter		Well Contractor Certification		
Last Strat St.Peter		Renner E.h. & Sons 02015 SIGAFOOS R		
Aquifer St.Peter		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock 107 ft.				
County Well Index Online Report		168744		Printed 8/28/2008
				HE-01205-07

Minnesota Unique Well No.
203457

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Minnesota Statutes Chapter 103I

Well Name HOWARD LAMKE		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 118 21 W 3 ABBBDC Elevation Method 862 ft. 7.5 minute topographic map (+/- 5 feet)		125 ft.	125 ft.	08/11/1959
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use		
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		4 in. to 102 ft.	lbs./ft.	
		Open Hole from 102 ft. to 125 ft.		
		Screen NO Make Type		
		Diameter	Slot/Gauze	Length Set Between
		Static Water Level		
		40 ft. from Land surface Date Measured 08/11/1959		
		PUMPING LEVEL (below land surface)		
		0 ft. after hrs. pumping 15 g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination		
Unique Number Verification N/A Date N/A		__feet __direction __type		
System UTM - Nad83, Zone15, Meters X: 474112 Y: 4990206		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number HP Volts		
		Length of drop Pipe _ft. Capacity _g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
		Aamot Well Co. 27052		
		License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		203457		Printed 8/28/2008 HE-01205-07

Well Address
 3700 COMMODORE
 BROOKLYN CENTER MN

Geological Material	Color	Hardness	From	To
NO RECORD			0	82
MUDDY SAND & GRAVEL			82	89
SAND ROCK			89	100
CLAY			100	103
SHALE			103	109
SAND ROCK			109	125

Minnesota Unique Well No.

203458

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		83 ft.	83 ft.	12/13/1955
118 21 W 3 ABBBDC Elevation Method		7.5 minute topographic map (+/- 5 feet)		
Drilling Method --		Drilling Fluid --		
Well Address		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
3700 COMMODORE DR		From -ft. to Ft.		
BROOKLYN CENTER MN		Use		
Geological Material		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
PIT		Casing Diameter Weight Hole Diameter		
SANDY CLAY		4 in. to ft. lbs./ft.		
GRAVEL & CLAY		Open Hole from ft. to ft.		
GRAVEL & STONES		Screen YES Make JOHNSON Type		
PACKED CLAY & GRAVEL		Diameter Slot/Gauze Length Set Between		
DECOMPOSED LIME & GRAVEL		ft. after hrs. pumping g.p.m.		
ST. PETER SANDSTONE		Well Head Completion		
Color Hardness From To		Pitless adapter manufacturer Model		
0 5 25 35 45 80 83		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination		
Unique Number Verification N/A Date N/A		__feet __direction __type		
System UTM - Nad83, Zone15, Meters X: 474111 Y: 4990230		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number __ HP __ Volts		
		Length of drop Pipe __ft. Capacity __g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock		Well Contractor Certification		
Last Strat St.Peter		Aamot Well Co. 27052		
Aquifer		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock ft		203458		
County Well Index Online Report		Printed 8/28/2008		
		HE-01205-07		

Minnesota Unique Well No.
203459

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

<p>Well Name Township Range Dir Section Subsections Elevation 862 ft. 118 21 W 3 ABCCB Elevation Method 7.5 minute topographic map (+/- 5 feet)</p>	<p>Well Depth 201 ft. Depth Completed 201 ft. Date Well Completed 11/19/1955</p> <p>Drilling Method --</p>																																																																												
<p>Well Address 6018 ADMIRAL PL BROOKLYN CENTER MN</p>	<p>Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.</p> <p>Use Other (specify in remarks)</p> <p>Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.</p>																																																																												
<p>Geological Material</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:10%;">Color</th> <th style="width:10%;">Hardness</th> <th style="width:10%;">From</th> <th style="width:10%;">To</th> </tr> </thead> <tbody> <tr><td>PIT</td><td></td><td></td><td>0</td><td>5</td></tr> <tr><td>SAND</td><td></td><td></td><td>5</td><td>25</td></tr> <tr><td>SANDY CLAY</td><td>GRAY</td><td></td><td>25</td><td>40</td></tr> <tr><td>CLAY & COARSE SAND</td><td>RED</td><td></td><td>40</td><td>70</td></tr> <tr><td>CLAY & SAND</td><td>YELLOW</td><td></td><td>70</td><td>98</td></tr> <tr><td>HARDPAN</td><td></td><td></td><td>98</td><td>102</td></tr> <tr><td>SHALE</td><td>RED</td><td></td><td>102</td><td>114</td></tr> <tr><td>SAND ROCK & SHALE</td><td>WHITE</td><td></td><td>114</td><td>134</td></tr> <tr><td>SAND ROCK & SHALE</td><td>BROWN</td><td></td><td>134</td><td>162</td></tr> <tr><td>SAND ROCK & SHALE ROCK</td><td>BROWN</td><td></td><td>162</td><td>184</td></tr> <tr><td>SHALE & SANDROCK</td><td></td><td></td><td>184</td><td>201</td></tr> </tbody> </table>		Color	Hardness	From	To	PIT			0	5	SAND			5	25	SANDY CLAY	GRAY		25	40	CLAY & COARSE SAND	RED		40	70	CLAY & SAND	YELLOW		70	98	HARDPAN			98	102	SHALE	RED		102	114	SAND ROCK & SHALE	WHITE		114	134	SAND ROCK & SHALE	BROWN		134	162	SAND ROCK & SHALE ROCK	BROWN		162	184	SHALE & SANDROCK			184	201	<p>Casing Diameter 4 in. to 183 ft. Weight lbs./ft. Hole Diameter</p> <p>Open Hole from ft. to ft.</p> <p>Screen Make Type</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:20%;">Diameter</th> <th style="width:20%;">Slot/Gauze</th> <th style="width:20%;">Length</th> <th style="width:40%;">Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Static Water Level 25 ft. from Land surface Date Measured 11/19/1955</p> <p>PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 18 g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p>	Diameter	Slot/Gauze	Length	Set Between												
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Diameter	Slot/Gauze	Length	Set Between																																																																										
<p style="text-align: center;">NO REMARKS</p> <p>Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 474042 Y: 4990141</p>	<p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material</p>																																																																												
<p>First Bedrock Last Strat St.Peter Aquifer St.Peter Depth to Bedrock ft.</p>	<p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Well Contractor Certification Aamot Well Co. 27052 License Business Name Lic. Or Reg. No. Name of Driller</p>																																																																												
<p>County Well Index Online Report</p>	<p>203459 Printed 8/28/2008 <small>HE-01205-07</small></p>																																																																												

Minnesota Unique Well No.

203460

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Minnesota Statutes Chapter 103I

Well Name		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 118 21 W 3 BAADCB Elevation Method 862 ft. 7.5 minute topographic map (+/- 5 feet)		153 ft.	153 ft.	11/11/1957
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use		
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		Open Hole from ft. to ft.		
		Screen YES Make JOHNSON Type		
		Diameter	Slot/Gauze	Length Set Between
		Static Water Level		
		18 ft. from Land surface Date Measured 11/11/1957		
		PUMPING LEVEL (below land surface)		
		ft. after hrs. pumping g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
NO REMARKS				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification N/A Date N/A				
System UTM - Nad83, Zone15, Meters X: 473943 Y: 4990143				
		Nearest Known Source of Contamination		
		_feet _direction _type		
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number HP 0 Volts		
		Length of drop Pipe _ft. Capacity _g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
		Aamot Well Co. 27052		
		License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		203460		Printed 8/28/2008 HE-01205-07

Well Address
 6019 PEARSON DR
 BROOKLYN CENTER MN

Geological Material	Color	Hardness	From	To
PIT			0	5
CLAYISH SAND	BROWN		5	24
CLAYISH SAND	RED		24	37
SANDY CLAY & GRAVEL	BROWN		37	68
CLAY SAND & GRAVEL	GRAY		68	91
WHITE SAND & SHALE			91	100
CLAY RED, WHITE, BLUE	BROWN		100	112
BROWN SAND & SHALE			112	114
COARSE SAND			114	128
SHALE & SAND	BLU/WHT	SOFT	128	153

Minnesota Unique Well No.
255726

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**
 Minnesota Statutes Chapter 103I

Entry Date 11/05/2001
 Update Date 04/20/2007
 Received Date

Well Name EARL BROWN FARM Township Range Dir Section Subsections Elevation 119 21 W 34 ADCCDD Elevation Method 860 ft. 7.5 minute topographic map (+/- 5 feet)	Well Depth 148 ft. Depth Completed 148 ft. Date Well Completed Drilling Method --
Well Address 3200 65TH ST N BROOKLYN PARK MN 55429 Geological Material GLACIAL DRIFT ST. PETER SANDSTONE PRAIRIE DU CHIEN GROUP Color Hardness From To 0 85 85 114 114 148	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Irrigation Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.
	Casing Diameter 10 in. to 109 ft. Weight lbs./ft. Hole Diameter Open Hole from 109 ft. to 148 ft.
	Screen NO Make Type Diameter Slot/Gauze Length Set Between
	Static Water Level 22 ft. from land surface Date Measured 11/05/2001 PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.
	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)
	REMARKS GAMMA LOGGED 11-5-2001. Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Address verification Date N/A System UTM - Nad83, Zone15, Meters X: 474577 Y: 4991109
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___ft. ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material	
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Minnesota Geological Survey MGS License Business Name Lic. Or Reg. No. Name of Driller	
First Bedrock St Peter Last Strat Prairie Du Chien Group Aquifer St.Peter-Prairie Du Chien Depth to Bedrock 85 ft.	County Well Index Online Report 255726
Printed 8/28/2008 HE-01205-07	

Minnesota Unique Well No.
417038

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name LES CAULT, JOHN Township Range Dir Section Subsections Elevation 860 ft. 119 21 W 34 DCDBAB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 75 ft. Depth Completed 75 ft. Date Well Completed 06/19/1985 Drilling Method Non-specified Rotary																																																						
Well Address 3507 62ND AV N BROOKLYN CENTER MN 55429 <table border="0" style="width:100%;"> <tr> <td>Geological Material</td> <td>Color</td> <td>Hardness</td> <td>From</td> <td>To</td> </tr> <tr> <td>SAND & GRAVEL</td> <td>BROWN</td> <td>SOFT</td> <td>0</td> <td>19</td> </tr> <tr> <td>CLAY</td> <td>BLUE</td> <td>MEDIUM</td> <td>19</td> <td>30</td> </tr> <tr> <td>SAND</td> <td>YELLOW</td> <td>SOFT</td> <td>30</td> <td>34</td> </tr> <tr> <td>SANDY CLAY</td> <td>GRAY</td> <td>MEDIUM</td> <td>34</td> <td>53</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>53</td> <td>60</td> </tr> <tr> <td>ROCK</td> <td>BROWN</td> <td>HARD</td> <td>60</td> <td>63</td> </tr> <tr> <td>SANDROCK</td> <td>WHITE</td> <td>SOFT</td> <td>63</td> <td>75</td> </tr> </table>	Geological Material	Color	Hardness	From	To	SAND & GRAVEL	BROWN	SOFT	0	19	CLAY	BLUE	MEDIUM	19	30	SAND	YELLOW	SOFT	30	34	SANDY CLAY	GRAY	MEDIUM	34	53	SAND	BROWN	SOFT	53	60	ROCK	BROWN	HARD	60	63	SANDROCK	WHITE	SOFT	63	75	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft. <table border="0" style="width:100%;"> <tr> <td>Casing Diameter</td> <td>Weight</td> <td>Hole Diameter</td> </tr> <tr> <td>4 in. to 70 ft.</td> <td>12 lbs./ft.</td> <td></td> </tr> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type stainless steel <table border="0" style="width:100%;"> <tr> <td>Diameter</td> <td>Slot/Gauze</td> <td>Length</td> <td>Set Between</td> </tr> <tr> <td>2</td> <td>8</td> <td>5</td> <td>70 ft. and 75 ft.</td> </tr> </table> Static Water Level 20 ft. from Land surface Date Measured 06/19/1985 PUMPING LEVEL (below land surface) 20 ft. after 2 hrs. pumping 30 g.p.m. Well Head Completion Pitless adapter manufacturer WATERWATER Model SU5.5 <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 70 ft.	12 lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	2	8	5	70 ft. and 75 ft.
	Geological Material	Color	Hardness	From	To																																																		
	SAND & GRAVEL	BROWN	SOFT	0	19																																																		
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NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 474311 Y: 4990482	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 0 to 55 ft. Grout Material: Bentonite from 55 to 70 ft. Nearest Known Source of Contamination 50 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 06/20/1985 Manufacturer's name AERMCTOR Model number SD1250 HP 0.5 Volts 115 Length of drop Pipe 40 ft. Capacity 12 g.p.m Type Submersible Material Plastic																																																						
First Bedrock St.Peter Aquifer St.Peter Last Strat St.Peter Depth to Bedrock 63 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Mc Alpine's Well Co. 27186 MCALPINE G. License Business Name Lic. Or Reg. No. Name of Driller																																																						
County Well Index Online Report	417038 Printed 8/28/2008 HE-01205-07																																																						

SITE SUMMARY

Site Name: Brooklyn Center - Dupont Avenue North

Fire Department: Brooklyn Center Fire Department
6301 Shingle Creek Parkway
Brooklyn Center, MN 55430

Site Contact: Not specified

Training Location: Fire Station 2, 6500 Dupont Avenue North, Brooklyn Center

Training Location Coordinates (X,Y): 476827.47, 4991109.81

Type of foam used in training: Not specified, use of 3M foam in training assumed

Foam training frequency: Quarterly

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: Not specified

Nearest surface water: Mississippi River located 1/2 to 3/4 mile east

Nearest wetland: 1/2 to 3/4 mile west

Karst Area: Training site located in transition or covered karst area

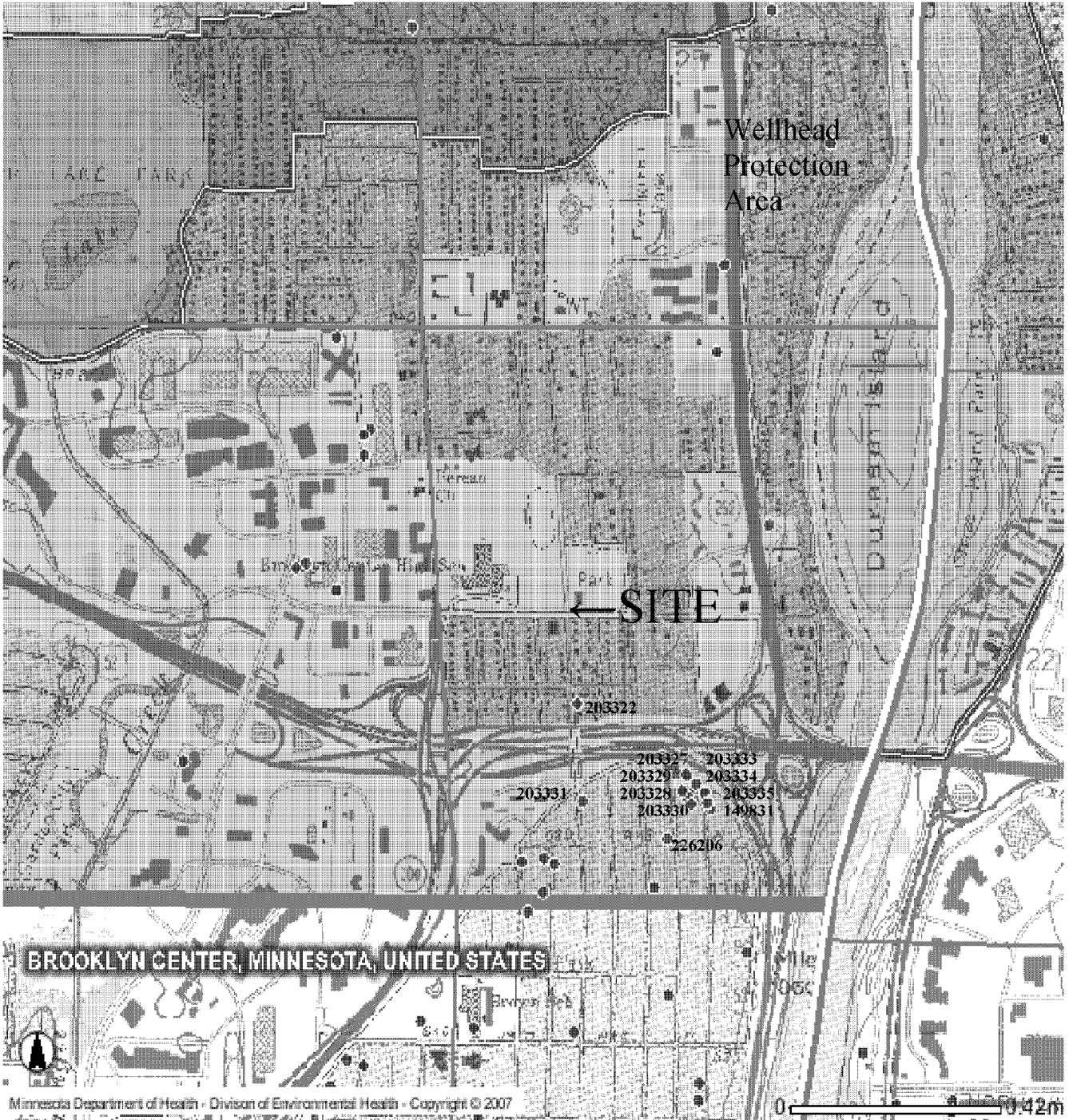
Nearest water well: <1/4 mile south

Nearest Wellhead Protection Area: Site is located within WPA

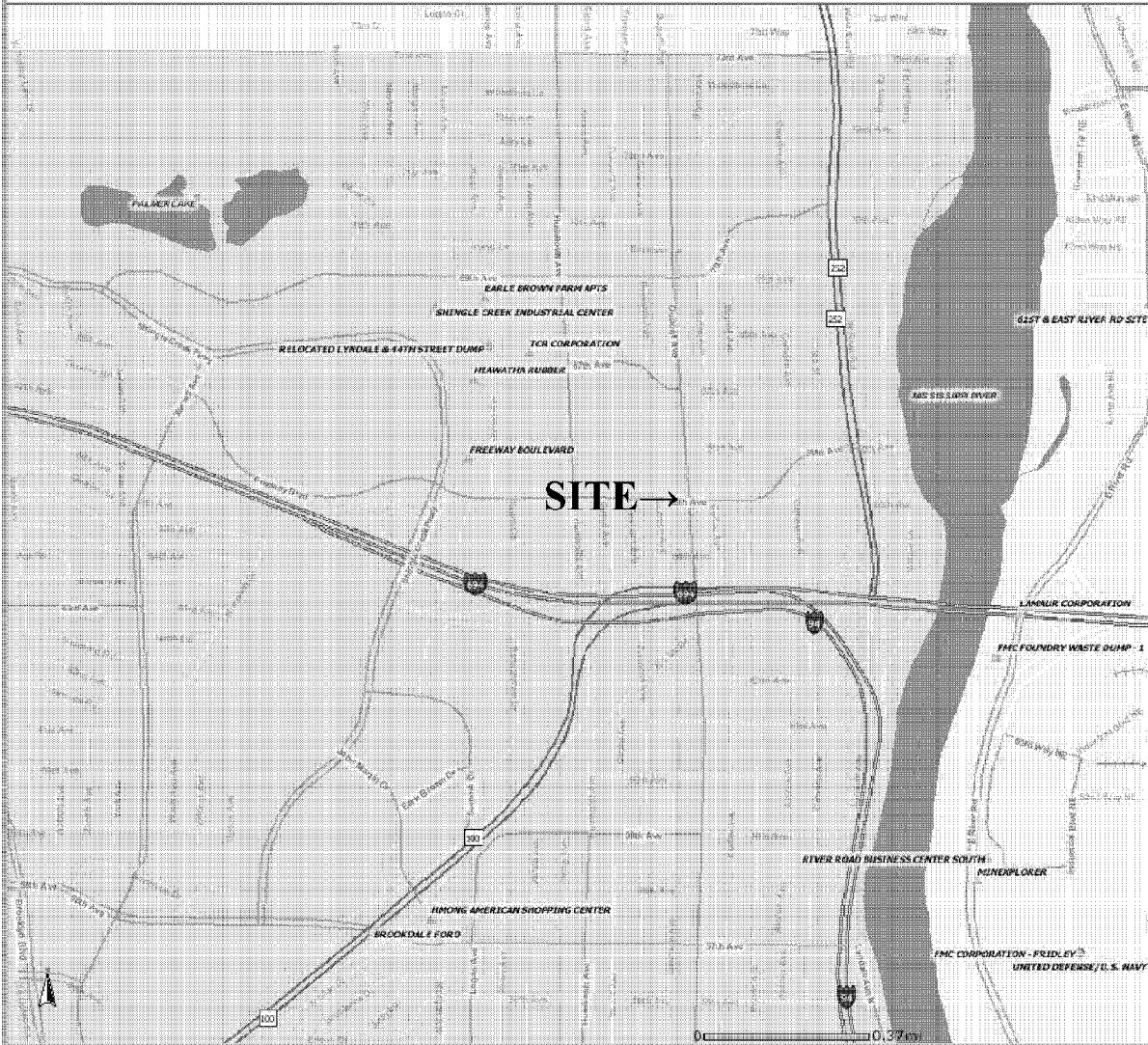
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 28

BROOKLYN CENTER - DUPONT AVE N CWI Well Map



Brooklyn Center - Dupont Avenue N. What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - MFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA TSD Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
149831

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/23/1991
 Update Date 04/20/2007
 Received Date

Well Name CISON, LEONARD		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 119 21 W 35 DCBCCB Elevation Method 841 ft. 7.5 minute topographic map (+/- 5 feet)		124 ft.	124 ft.	07/13/1978	
Drilling Method Non-specified Rotary					
Well Address 6218 CAMDEN AV N BROOKLYN CENTER MN 55428 Geological Material Color Hardness From To SAND 0 18 GRAVEL 18 97 GLENWOOD SANDSTONE 97 120 PLATTEVILLE 120 124		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.			
		Casing Diameter	Weight	Hole Diameter	
		4 in. to 97 ft.	10.79 lbs./ft.	4 in. to 124 ft.	
		Open Hole from 97 ft. to 124 ft.			
		Screen NO	Make	Type	
		Diameter	Slot/Gauze	Length	Set Between
		0		1	2712 ft. and 2778 ft.
Static Water Level 25 ft. from Land surface Date Measured 07/13/1978					
PUMPING LEVEL (below land surface) ft. after 3 hrs. pumping 40 g.p.m.					
Well Head Completion Pitless adapter manufacturer CLAYTON-MARK Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Grout Material: Bentonite from to ft.			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination _feet _direction _type			
Unique Number Verification Address Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
System UTM - Nad83, Zone15, Meters X: 477292 Y: 4990544		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 07/13/1978 Manufacturer's name RED JACKET Model number 8CC HP 1 Volts 230 Length of drop Pipe 54 ft. Capacity 20 g.p.m. Type Submersible Material Galvanized			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Well Contractor Certification Renner E.H. & Sons 27015 WOLTERS, P. License Business Name Lic. Or Reg. No. Name of Driller			
First Bedrock St.Peter Aquifer St.Peter-Prairie Du Chen Last Strat Prairie Du Chien Group Depth to Bedrock 97 ft.					
County Well Index Online Report		149831		Printed 9/2/2008 HE-01205-07	

Minnesota Unique Well No.
203322

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name NELSON, A		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 119 21 W 35 CACBBD Elevation Method 850 ft 7.5 minute topographic map (+/- 5 feet)		114 ft	114 ft	08/15/1959		
Drilling Method Cable Tool						
Well Address 6407 DUPONT AV N BROOKLYN CENTER MN 55430 Geological Material Color Hardness From To SAND 0 14 CLAY BLUE 14 52 SAND BROWN 52 68 SAND & CLAY 68 90 SANDSTONE YELLOW 90 114		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Domestic				
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>				
		No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		3 in. to ft.		lbs./ft.		
		Open Hole from ft. to ft.				
		Screen NO Make Type				
		Diameter		Slot/Gauze	Length	Set Between
Static Water Level 30 ft from land surface Date Measured 08/15/1959						
PUMPING LEVEL (below land surface) 30 ft after 2 hrs. pumping 30 g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS DRILLED BY C. WUNDERLICH.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Well grouted, type unknown from to ft.				
Unique Number Verification Address Date N/A		Nearest Known Source of Contamination _ftct _direction _type				
System UTM - Nad83, Zone15, Meters X: 476869 Y: 4990838		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe_ft Capacity_g.p.m Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock St.Peter Last Strat St.Peter		Well Contractor Certification Minnesota Dept. of Natural Resources MNDNR License Business Name Lic. Or Reg. No. Name of Driller				
County Well Index Online Report		203322		Printed 8/28/2008 HE-01205-07		

Minnesota Unique Well No.
203327

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name STARK, DON Township Range Dir Section Subsections Elevation 838 ft. 119 21 W 35 CDAADB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 110 ft. Depth Completed 110 ft. Date Well Completed 08/16/1956 Drilling Method Jetted								
Well Address 6306 CAMDEN AV N BROOKLYN CENTER MN 55430 Geological Material Color Hardness From To SAND 0 18 CLAY BROWN 18 79 SAND BROWN 79 101 SANDSTONE HARD 101 110	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use Domestic								
	Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> <tr> <td>2 in. to ft.</td> <td>lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	2 in. to ft.	lbs./ft.			
	Casing Diameter	Weight	Hole Diameter						
	2 in. to ft.	lbs./ft.							
	Open Hole from ft. to ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between				
	Diameter	Slot/Gauze	Length	Set Between					
Static Water Level 29 ft. from Land surface Date Measured 08/16/1956 PUMPING LEVEL (below land surface) 29 ft. after 2 hrs. pumping 10 g.p.m.									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
REMARKS WELL DRILLED BY C. WUNDERLICH. Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 477216 Y: 4590639	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Well grouted, type unknown from to ft.								
First Bedrock St Peter Aquifer St Peter Last Strat St.Peter Depth to Bedrock 101 ft.	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP __ Volts Length of drop Pipe __ft. Capacity __g.p.m Type Material								
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Minnesota Dept. of Natural Resources MNDNR License Business Name Lic. Or Reg. No. Name of Driller								
203327	Printed 9/2/2008 HE-01205-07								

Minnesota Unique Well No.
203328

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed																									
Township Range Dir Section Subsections Elevation 119 21 W 35 CDACDB Elevation Method 840 ft. 7.5 minute topographic map (+/- 5 feet)		106 ft.	106 ft.	10/21/1955																									
Drilling Method Jetted																													
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											
--		From -ft. to Ft.																											
Use Domestic																													
Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.																													
Casing Diameter		Weight	Hole Diameter																										
2 in. to ft.		lbs./ft.																											
Open Hole from ft. to ft.																													
Screen NO Make Type																													
Diameter		Slot/Gauze	Length	Set Between																									
<table border="1"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td></td> <td></td> <td>0</td> <td>39</td> </tr> <tr> <td>CLAY</td> <td>BROWN</td> <td></td> <td>39</td> <td>84</td> </tr> <tr> <td>SAND GRAVEL</td> <td></td> <td></td> <td>84</td> <td>96</td> </tr> <tr> <td>SANDSTONE</td> <td></td> <td></td> <td>96</td> <td>106</td> </tr> </tbody> </table>					Geological Material	Color	Hardness	From	To	SAND			0	39	CLAY	BROWN		39	84	SAND GRAVEL			84	96	SANDSTONE			96	106
Geological Material	Color	Hardness	From	To																									
SAND			0	39																									
CLAY	BROWN		39	84																									
SAND GRAVEL			84	96																									
SANDSTONE			96	106																									
Static Water Level 29 ft. from Land surface Date Measured 10/2/1955																													
PUMPING LEVEL (below land surface) 29 ft. after 1 hrs. pumping 10 g.p.m.																													
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																													
REMARKS WELL DRILLED BY C. WUNDERLICH.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Well grouted, type unknown from to ft.																											
Unique Number Verification Address Date N/A		Nearest Known Source of Contamination _feet _direction _type																											
System UTM - Nad83, Zone15, Meters X: 477221 Y: 4990575		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material																											
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																											
First Bedrock St Peter Last Strat St.Peter		Well Contractor Certification <u>Minnesota Dept. of Natural Resources</u> MNDNR License Business Name Lic. Or Reg. No. Name of Driller																											
Aquifer St Peter Depth to Bedrock 96 ft.																													
County Well Index Online Report		203328		Printed 9/2/2008 HE-01205-07																									

Minnesota Unique Well No.

203329

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 119 21 W 35 CDADAB Elevation Method 840 ft. 7.5 minute topographic map (+/- 5 feet)		110 ft.	110 ft.	09/29/1955
Drilling Method Jetted				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Domestic				
Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
2 in. to ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen NO Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material		Color	Hardness	From To
SAND				0 41
CLAY		BROWN		41 86
SAND GRAVEL				86 101
SANDSTONE				101 110
Well Address 6227 CADMEN AV N BROOKLYN CENTER MN 55430				
Static Water Level 29 ft. from Land surface Date Measured 09/29/1955				
PUMPING LEVEL (below land surface) 29 ft. after 1 hrs. pumping 10 g.p.m.				
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS WELL DRILLED BY C. WUNDERLICH.				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Well grouted, type unknown from to ft.				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification Address Date N/A				
System UTM - Nad83, Zone15, Meters X: 477204 Y: 4590564				
Nearest Known Source of Contamination _feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification <u>Minnesota Dept. of Natural Resources</u> MNDNR License Business Name Lic. Or Reg. No. Name of Driller				
First Bedrock St Peter		Aquifer St Peter		
Last Strat St.Peter		Depth to Bedrock 101 ft.		
County Well Index Online Report		203329		Printed 9/2/2008 HE-01205-07

Minnesota Unique Well No.

203330

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 119 21 W 35 CDADDC Elevation Method 841 ft. 7.5 minute topographic map (+/- 5 feet)		105 ft.	105 ft.	08/19/1955
Drilling Method Jetted				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Domestic				
Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
2 in. to ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen NO Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material Color Hardness From To				
SAND			0	35
CLAY		BROWN	35	88
SANDSTONE			88	105
Static Water Level 29 ft. from Land surface Date Measured 08/19/1955				
PUMPING LEVEL (below land surface) 29 ft. after 1 hrs. pumping 10 g.p.m.				
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS WELL DRILLED BY C. WUNDERLICH.				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Well grouted, type unknown from to ft.				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification Address Date N/A				
System UTM - Nad83, Zone15, Meters X: 477231 Y: 4990567				
Nearest Known Source of Contamination _feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification <u>Minnesota Dept. of Natural Resources</u> MNDNR License Business Name Lic. Or Reg. No. Name of Driller				
First Bedrock St Peter		Aquifer St Peter		
Last Strat St.Peter		Depth to Bedrock 88 ft.		
County Well Index Online Report		203330		Printed 9/2/2008 HE-01205-07

Minnesota Unique Well No.
203333

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name STRUCK, DON		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 119 21 W 35 DCBBCC Elevation Method 838 ft. 7.5 minute topographic map (+/- 5 feet)		105 ft.	105 ft.	05/17/1956		
Drilling Method Jetted						
Well Address 6230 CADMEN AV N BROOKLYN CENTER MN 55430 Geological Material Color Hardness From To SAND BROWN 0 31 CLAY 31 85 SAND & GRAVEL 85 91 SANDSTONE 91 105		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Domestic				
		Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to ft.		lbs./ft.		
		Open Hole from ft. to ft.				
		Screen NO Make Type				
		Diameter		Slot/Gauze	Length	Set Between
		Static Water Level 29 ft. from Land surface Date Measured 05/17/1956				
PUMPING LEVEL (below land surface) 29 ft. after 2 hrs. pumping 10 g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS DRILLED BY C. WUNDERLICH.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Well grouted, type unknown from to ft.				
Unique Number Verification Address Date N/A		Nearest Known Source of Contamination _feet _direction _type				
System UTM - Nad83, Zone15, Meters X: 477246 Y: 4590614		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock St Peter Last Strat St.Peter		Well Contractor Certification <u>Minnesota Dept. of Natural Resources</u> MNDNR License Business Name Lic. Or Reg. No. Name of Driller				
Aquifer St Peter Depth to Bedrock 91 ft.						
County Well Index Online Report		203333		Printed 9/2/2008 HE-01205-07		

Minnesota Unique Well No.
203334

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 119 21 W 35 DCBCBB Elevation Method 840 ft. 7.5 minute topographic map (+/- 5 feet)		111 ft.	111 ft.	12/29/1955	
Drilling Method Jetted					
Well Address 6224 CADMEN AV N BROOKLYN CENTER MN 55430 Geological Material Color Hardness From To SAND BROWN 0 38 CLAY 38 81 SAND GRAVEL 81 100 SANDSTONE 100 111		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		From -ft. to Ft.			
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>			
		No Above/Below ft.			
Casing Diameter		Weight	Hole Diameter		
2 in. to ft.		lbs./ft.			
Open Hole from ft. to ft.					
Screen NO Make Type					
Diameter		Slot/Gauze	Length	Set Between	
Static Water Level 29 ft. from land surface Date Measured 12/29/1955					
PUMPING LEVEL (below land surface) 29 ft. after 1 hrs. pumping 10 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
REMARKS DRILLED BY C. WUNDERLICH.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Well grouted, type unknown from to ft.			
Unique Number Verification Address Date N/A		Nearest Known Source of Contamination _ft. _direction _type			
System UTM - Nad83, Zone15, Meters X: 477275 Y: 4990588		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock St.Peter		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
Last Strat St.Peter		Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m Type Material			
Aquifer St.Peter		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Depth to Bedrock 100 ft.		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Well Contractor Certification					
County Well Index Online Report		203334		Printed 9/2/2008 HE-01205-07	

Minnesota Unique Well No.

203335

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name STARK, DON Township Range Dir Section Subsections Elevation 841 ft. 119 21 W 35 DCBCCB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 114 ft. Depth Completed 114 ft. Date Well Completed 05/08/1956 Drilling Method Jetted								
Well Address 6218 CAMDEN AV N BROOKLYN CENTER MN 55430 Geological Material Color Hardness From To SAND BROWN 0 36 CLAY 36 88 SAND & GRAVEL 88 91 SANDSTONE 91 114	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use Domestic								
	Casing Type Galvanized Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> <tr> <td>2 in. to ft.</td> <td>lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	2 in. to ft.	lbs./ft.			
	Casing Diameter	Weight	Hole Diameter						
	2 in. to ft.	lbs./ft.							
	Open Hole from ft. to ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between				
	Diameter	Slot/Gauze	Length	Set Between					
Static Water Level 29 ft. from Land surface Date Measured 05/08/1956 PUMPING LEVEL (below land surface) 29 ft. after 2 hrs. pumping 10 g.p.m.									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
REMARKS DRILLED BY C. WUNDERLICH. Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 477283 Y: 4590560	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
First Bedrock St Peter Aquifer St Peter Last Strat St.Peter Depth to Bedrock 91 ft.	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m Type Material								
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification <table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u>Minnesota Dept. of Natural Resources</u></td> <td style="text-align: center;"><u>MNDNR</u></td> </tr> <tr> <td style="text-align: center;">License Business Name</td> <td style="text-align: center;">Lic. Or Reg. No. Name of Driller</td> </tr> </table>	<u>Minnesota Dept. of Natural Resources</u>	<u>MNDNR</u>	License Business Name	Lic. Or Reg. No. Name of Driller				
<u>Minnesota Dept. of Natural Resources</u>	<u>MNDNR</u>								
License Business Name	Lic. Or Reg. No. Name of Driller								

203335

Printed 9/2/2008

HE-01205-07

Minnesota Unique Well No.
226206

County Hennepin
 Quad Minneapolis North
 Quad ID 120D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 04/20/2007
 Received Date

Well Name		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 119 21 W 35 CDDBAA Elevation Method 842 ft. 7.5 minute topographic map (+/- 5 feet)		112 ft.	112 ft.	03/20/1961
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Domestic		
		Casing Type	Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Above/Below 0 ft.
		Casing Diameter	Weight	Hole Diameter
		3 in. to 108 ft.	lbs./ft.	
		Open Hole from ft. to ft.		
		Screen YES Make JOHNSON Type stainless steel		
		Diameter	Slot/Gauze	Length Set Between
		1.25	105	4 108 ft. and 112 ft.
		Static Water Level 40 ft. from Land surface Date Measured 03/20/1961		
		PUMPING LEVEL (below land surface) 40 ft. after hrs. pumping 20 g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
Geological Material Color Hardness From To SAND RED 0 45 CLAY BLUE 45 90 SAND GRAY 90 105 SAND GRAY 105 112		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
NO REMARKS		Nearest Known Source of Contamination _feet _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 477155 Y: 4990460		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock Aquifer Quat. Buried Artes. Aquifer Last Strat Sand-gray Depth to Bedrock ft.		Well Contractor Certification Dependable Well Co. 27143 TWEED, R. License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		226206		Printed 9/2/2008 HE-01205-07

- **Cannon Falls**

SITE SUMMARY

Site Name: Cannon Falls

Fire Department: Cannon Falls Fire Department
320 West Hoffman
Cannon Falls, MN 55009

Site Contact: John Miller, Fire Chief
507-291-0643
cannonfallsfd@hotmail.com

Training Location: Cannon Valley Fairgrounds, Cannon Falls

Training Location Coordinates (X,Y): 506774.4, 4929013.29

Type of foam used in training: Class B AFFF: Angus
Class A: Angus

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class B AFFF: less than 5 gallons
Class A: less than 5 gallons

Nearest surface water: Cannon River located less than 1/4 mile east

Nearest wetland: Approximately 1/4 mile north

Karst Area: Training site located in an active karst area

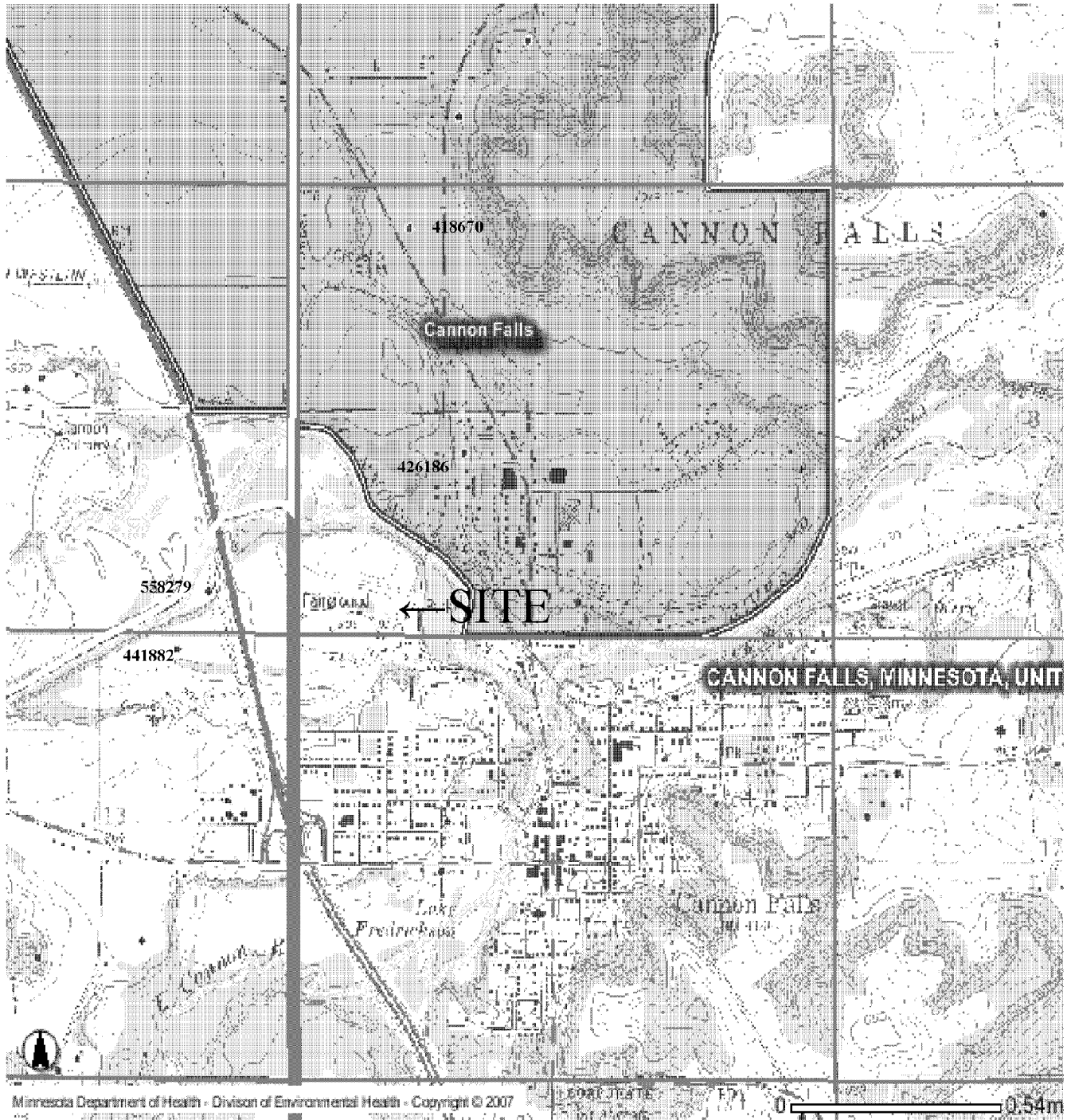
Nearest water well: 1/4 mile to 1/2 mile north-northeast

Nearest Wellhead Protection Area: Less than 1/4 mile east

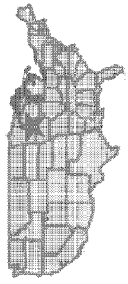
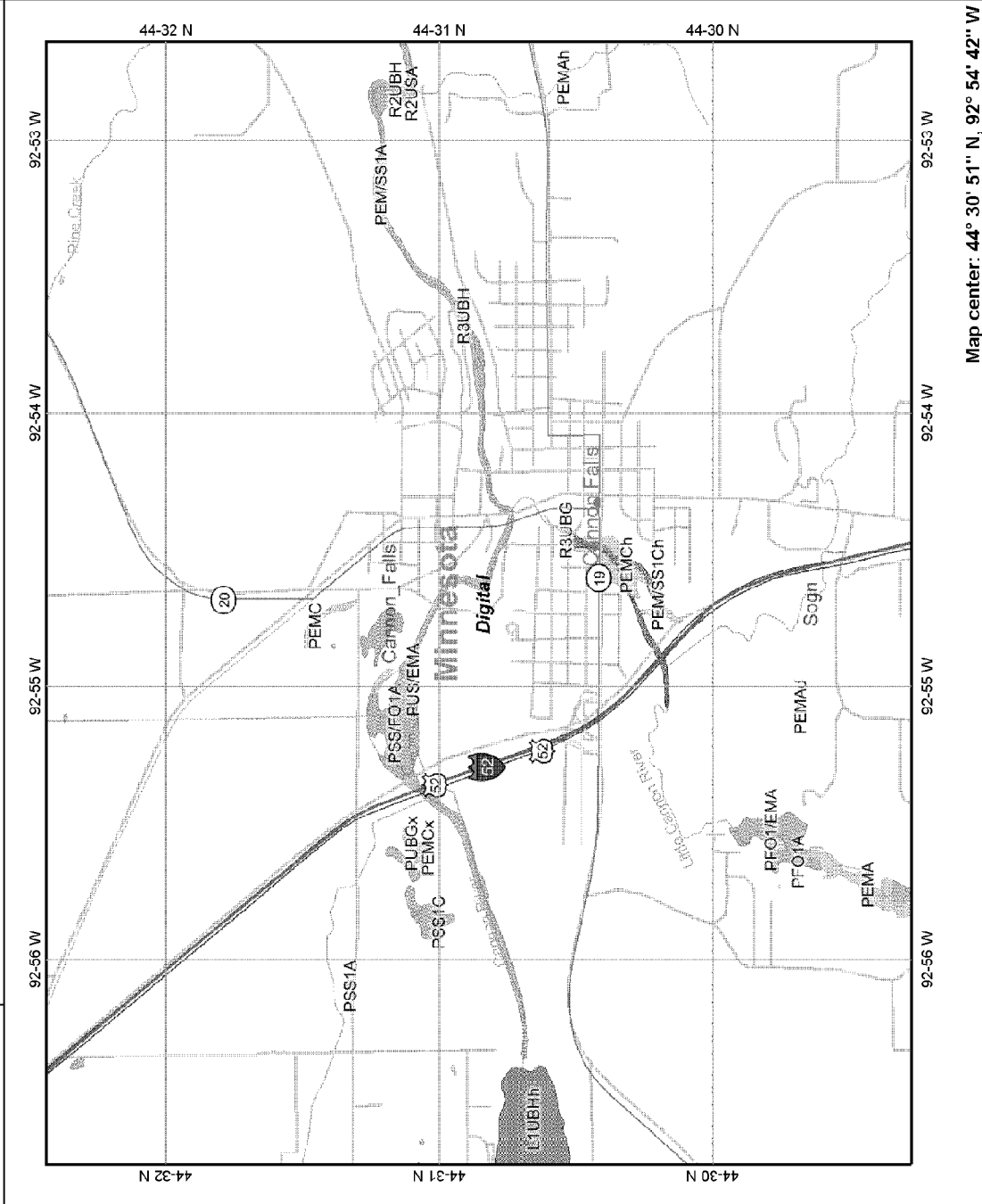
Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 18

CANNON FALLS CWI Well Map



Cannon Falls Wetland Map



Legend

- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Cannon Falls *What's In My Neighborhood* Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfills
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
418670

County Goodhue
 Quad Cannon Falls
 Quad ID 87C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 10/30/1990
 Update Date 11/22/1994
 Received Date

Well Name CEMSTONE READY MIX PLANT		Well Depth	Depth Completed	Date Well Completed																				
Township Range Dir Section Subsections Elevation		340 ft.	340 ft.	06/14/1985																				
112	17 W 7 BABCDB	Elevation Method 7.5 minute topographic map (+/- 5 feet)																						
Drilling Method Non-specified Rotary																								
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																						
--		From -ft. to Ft.																						
Use Domestic																								
Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.																								
Casing Diameter		Weight	Hole Diameter																					
8 in. to 15 ft.		lbs./ft.	12 in. to 15 ft.																					
4 in. to 300 ft.		lbs./ft.	8 in. to 300 ft.																					
Open Hole from 300 ft. to 340 ft.																								
Screen NO Make Type																								
Diameter		Slot/Gauze	Length	Set Between																				
<table border="1"> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>MEDIUM</td> <td>0</td> <td>15</td> </tr> <tr> <td>LIME</td> <td>YELLOW</td> <td>HARD</td> <td>15</td> <td>280</td> </tr> <tr> <td>SANDROCK</td> <td>WHITE</td> <td>MEDIUM</td> <td>280</td> <td>340</td> </tr> </table>					Geological Material	Color	Hardness	From	To	SAND	BROWN	MEDIUM	0	15	LIME	YELLOW	HARD	15	280	SANDROCK	WHITE	MEDIUM	280	340
Geological Material	Color	Hardness	From	To																				
SAND	BROWN	MEDIUM	0	15																				
LIME	YELLOW	HARD	15	280																				
SANDROCK	WHITE	MEDIUM	280	340																				
Static Water Level																								
25 ft. from land surface Date Measured 06/14/1985																								
PUMPING LEVEL (below land surface)																								
30 ft. after hrs. pumping 50 g.p.m.																								
Well Head Completion																								
Pitless adapter manufacturer Model																								
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade																								
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																								
REMARKS																								
FORMERLY WELCC CEMENT.																								
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Grout Material: Neat Cement from 0 to 300 ft. 0																								
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)																								
Unique Number Verification Information from owner Date N/A																								
System UTM - Nad83, Zone15, Meters X: 506905 Y: 4930462																								
Nearest Known Source of Contamination																								
100 feet W direction Septic tank/drain field type																								
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 07/16/1985																								
Manufacturer's name GRUNDFOS Model number SP-2-18 HP 1 Volts 230																								
Length of drop Pipe 42 ft. Capacity 12 g.p.m. Type Centrifugal Material Galvanized																								
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																								
Well Contractor Certification																								
First Bedrock Prairie Du Chien Group		Aquifer Jordan																						
Last Strat Jordan		Depth to Bedrock 15 ft.																						
County Well Index Online Report		418670		Printed 9/2/2008 HE-01205-07																				

Minnesota Unique Well No.

426186

County Goodhue
 Quad Cannon Falls
 Quad ID 87C

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**

Entry Date 04/05/1989
 Update Date 11/22/1994
 Received Date

Minnesota Statutes Chapter 103I

Well Name CROWE, RYNE		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 112 17 W 7 CAACAD Elevation Method 809 ft. 7.5 minute topographic map (+/- 5 feet)		95 ft.	95 ft.	11/03/1986
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Domestic				
Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>		No Above/Below 0 ft.		
Casing Diameter		Weight	Hole Diameter	
4 in. to 78 ft.		lbs./ft.	4 in. to 95 ft.	
Open Hole from 78 ft. to 95 ft.				
Screen NO Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material	Color	Hardness	From	To
SAND			0	20
CLAY			20	32
GRAVEL			32	78
ROCK			78	95
Static Water Level 6 ft. from land surface Date Measured 11/03/1986				
PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 40 g.p.m.				
Well Head Completion Pitless adapter manufacturer WHITEWATER Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS ST. CLAIRES TERRA HAUTE ADD. BLK 8.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Neat Cement from 0 to ft. 0		
Unique Number Verification Information from owner Date N/A		Nearest Known Source of Contamination _ft. _direction _type		
System UTM - Nad83, Zone15, Meters X: 507130 Y: 4929651		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 11/05/1986 Manufacturer's name DEMMING Model number __ HP 0 Volts Length of drop Pipe 42 ft. Capacity _g.p.m. _type Submersible Material Galvanized				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification Torcerson Well Co. 27056 OTTEN, D. License Business Name Lic. Or Reg. No. Name of Driller				
First Bedrock Prairie Du Chien Group Last Strat Prairie Du Chien Group		Aquifer Prairie Du Chien Group Depth to Bedrock 78 ft.		
County Well Index Online Report		426186		Printed 9/2/2008 HE-01205-07

Minnesota Unique Well No.
441882

County Goodhue
 Quad Cannon Falls
 Quad ID 87C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/14/1990
 Update Date 11/23/1994
 Received Date

Well Name LINDEMAN, DEAN Township Range Dir Section Subsections Elevation 812 ft. 112 18 W 13 ABAABC Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 340 ft. Depth Completed 340 ft. Date Well Completed 08/18/1988 Drilling Method Non-specified Rotary																																																														
Well Address RR 4 CANNON FALLS MN 55009	Drilling Fluid Foam Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.																																																														
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td>YELLOW</td><td>SOFT</td><td>0</td><td>7</td></tr> <tr><td>LIME</td><td>YELLOW</td><td>MEDIUM</td><td>7</td><td>120</td></tr> <tr><td>LIME</td><td>YELLOW</td><td>HARD</td><td>120</td><td>140</td></tr> <tr><td>LIME</td><td>YELLOW</td><td>HARD</td><td>140</td><td>200</td></tr> <tr><td>SANDROCK</td><td>BROWN</td><td>SOFT</td><td>200</td><td>220</td></tr> <tr><td>LIME</td><td>BLUE</td><td>HARD</td><td>220</td><td>280</td></tr> <tr><td>SANDROCK</td><td>BLUE</td><td>HARD</td><td>280</td><td>310</td></tr> <tr><td>SANDROCK</td><td>BLUE</td><td>MEDIUM</td><td>310</td><td>340</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY	YELLOW	SOFT	0	7	LIME	YELLOW	MEDIUM	7	120	LIME	YELLOW	HARD	120	140	LIME	YELLOW	HARD	140	200	SANDROCK	BROWN	SOFT	200	220	LIME	BLUE	HARD	220	280	SANDROCK	BLUE	HARD	280	310	SANDROCK	BLUE	MEDIUM	310	340	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>8 in. to 7 ft.</td> <td>lbs./ft.</td> <td>12 in. to 7 ft.</td> </tr> <tr> <td>4 in. to 324 ft.</td> <td>lbs./ft.</td> <td>8 in. to 324 ft.</td> </tr> </tbody> </table> Open Hole from 324 ft. to 340 ft. Screen NO Make Type <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Static Water Level 0 ft. from land surface Date Measured 08/18/1988 PUMPING LEVEL (below land surface) 100 ft. after hrs. pumping 40 g.p.m. Well Head Completion Pitless adapter manufacturer WHITEWATER Model SU4X5.5 <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	8 in. to 7 ft.	lbs./ft.	12 in. to 7 ft.	4 in. to 324 ft.	lbs./ft.	8 in. to 324 ft.	Diameter	Slot/Gauze	Length	Set Between				
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Diameter	Slot/Gauze	Length	Set Between																																																												
REMARKS STATIC WATER LEVEL DOES NOT AGREE WITH DROP PIPE LENGTH Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Other, note in remarks Date N/A System UTM - Nad83, Zone15, Meters X: 505953 Y: 4928948	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 0 to 324 ft. 10 yds. Nearest Known Source of Contamination 100 feet S direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 09/20/1988 Manufacturer's name GRUNDFOS Model number SP-2-12 HP 0.5 Volts 230 Length of drop Pipe 48 ft. Capacity 10 g.p.m. Type Submersible Material Galvanized																																																														
First Bedrock Prairie Du Chien Group Aquifer Jordan Last Strat Jordan Depth to Bedrock 7 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Kimme-Bauer 19521 ANDERSON L. License Business Name Lic. Or Reg. No. Name of Driller																																																														
County Well Index Online Report	441882	Printed 9/2/2008 HE-01205-07																																																													

Minnesota Unique Well No.
558279

County Goodhue
 Quad Cannon Falls
 Quad ID 87C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 11/21/1995
 Update Date 01/20/1996
 Received Date

Well Name SANDSTROM, ANDY Township Range Dir Section Subsections Elevation 799 ft. 112 18 W 12 DDCBDB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 300 ft. Depth Completed 300 ft. Date Well Completed 08/14/1995 Drilling Method Non-specified Rotary																														
Well Address 30127 59TH AVE. WA CANNON FALLS MN 55009 <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SOIL</td> <td>BLACK</td> <td>SOFT</td> <td>0</td> <td>1</td> </tr> <tr> <td>COARSE GRAVEL</td> <td>BROWN</td> <td>MEDIUM</td> <td>1</td> <td>15</td> </tr> <tr> <td>LIMESTONE</td> <td>BROWN</td> <td>HARD</td> <td>15</td> <td>200</td> </tr> <tr> <td>LIMESTONE</td> <td>GRAY</td> <td>HARD</td> <td>200</td> <td>240</td> </tr> <tr> <td>SANDSTONE</td> <td>LT. GRY</td> <td>SOFT</td> <td>240</td> <td>300</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SOIL	BLACK	SOFT	0	1	COARSE GRAVEL	BROWN	MEDIUM	1	15	LIMESTONE	BROWN	HARD	15	200	LIMESTONE	GRAY	HARD	200	240	SANDSTONE	LT. GRY	SOFT	240	300	Drilling Fluid Foam Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.
	Geological Material	Color	Hardness	From	To																										
	SOIL	BLACK	SOFT	0	1																										
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	Use Domestic Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.	<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 286 ft.</td> <td>lbs./ft.</td> <td>12 in. to 15 ft.</td> </tr> <tr> <td></td> <td></td> <td>8 in. to 286 ft.</td> </tr> </tbody> </table>	Casing Diameter	Weight	Hole Diameter	4 in. to 286 ft.	lbs./ft.	12 in. to 15 ft.			8 in. to 286 ft.																				
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Open Hole from 286 ft. to 300 ft. Screen NO Make Type	<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Diameter	Slot/Gauze	Length	Set Between																										
Diameter	Slot/Gauze	Length	Set Between																												
Static Water Level -20 ft. from land surface Date Measured 07/12/1995 PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.	Well Head Completion Pitless adapter manufacturer WHITEWATER Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																														
REMARKS WELL FLOWS. Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Tag on well Date N/A System UTM - Nad83, Zone15, Meters X: 506082 Y: 4929157	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 0 to 286 ft. 5 yds.																														
First Bedrock Prairie Du Chien Group Last Strat Jordan Aquifer Jordan Depth to Bedrock 15 ft.	Nearest Known Source of Contamination 150 feet E direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 07/12/1995 Manufacturer's name JACUZZI Model number 1S4257B HP 1 Volts 230 Length of drop Pipe 63 ft. Capacity 25 g.p.m. Type Submersible Material																														
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Carlson Well Drill 19649 STATE, M. License Business Name Lic. Or Reg. No. Name of Driller																														
558279	Printed 9/2/2008 HE-01205-07																														

- **Clearbrook**

SITE SUMMARY

Site Name: Clearbrook

Fire Department: Clearbrook Fire Department
PO Box 306
Clearbrook, MN 56634

Site Contact: Jeff Basinger, Fire Chief
218-776-3144

Training Location: Tank farm at south end of town. Train with Class B foam at tank farm, spent foam is caught on top of the floating lids on the tanks. The foam brands are not known by Fire Chief.

Training Location Coordinates (X,Y): 318971.12, 5284443.38

Type of foam used in training: AFFF: brand unknown, 3M brand assumed for ranking
Class A: brand unknown

Foam training frequency: Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Spent foam caught on top of tanks by floating lids

Annual foam use: AFFF: less than 10 gallons
Class A: less than 10 gallons

Nearest surface water: Less than 1/8 mile southeast

Nearest wetland: Less than 1/8 mile south and southeast

Karst Area: Site is not located in a karst area

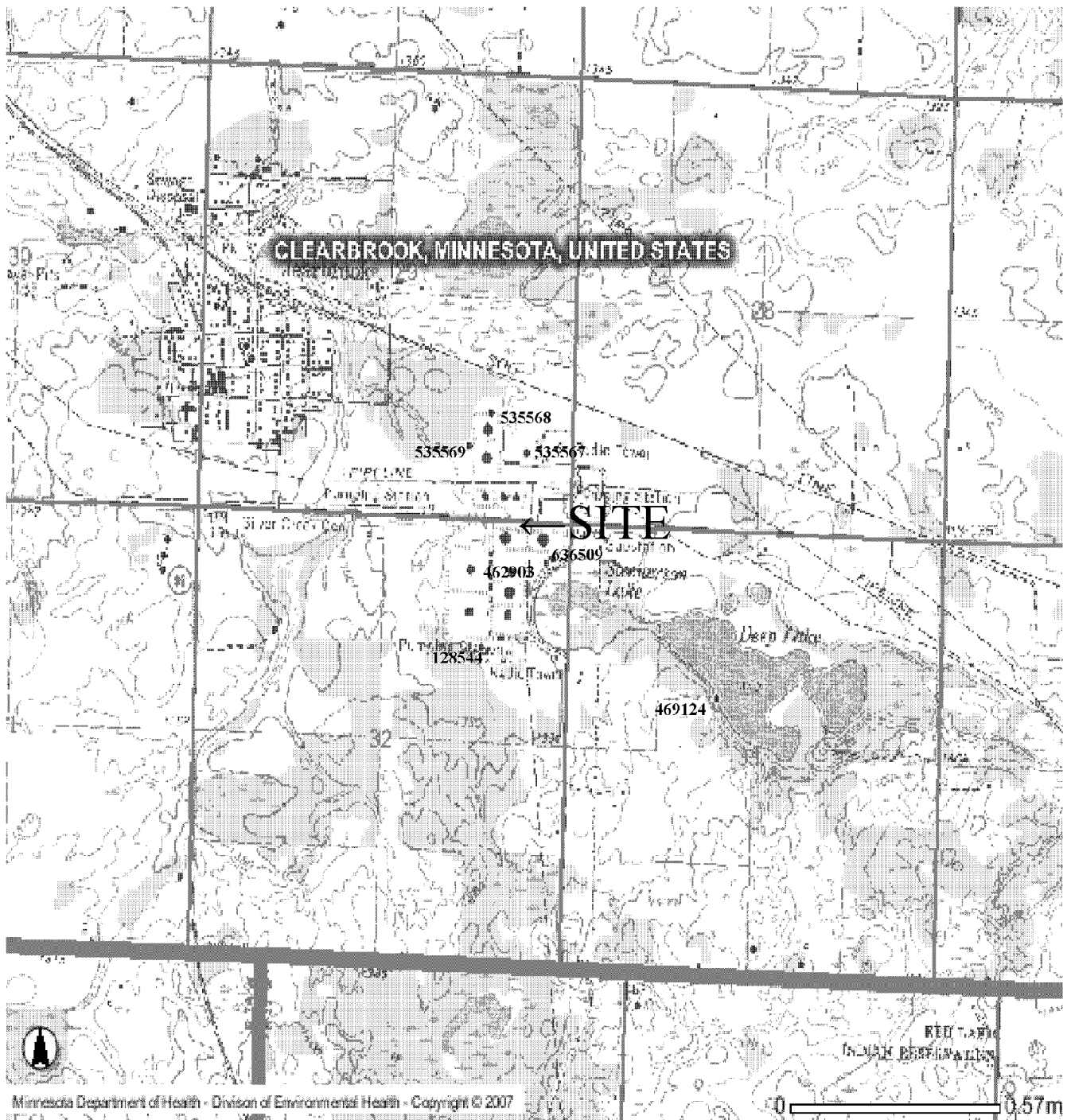
Nearest water well: Less than 1/8 mile

Nearest Wellhead Protection Area: More than 1 mile

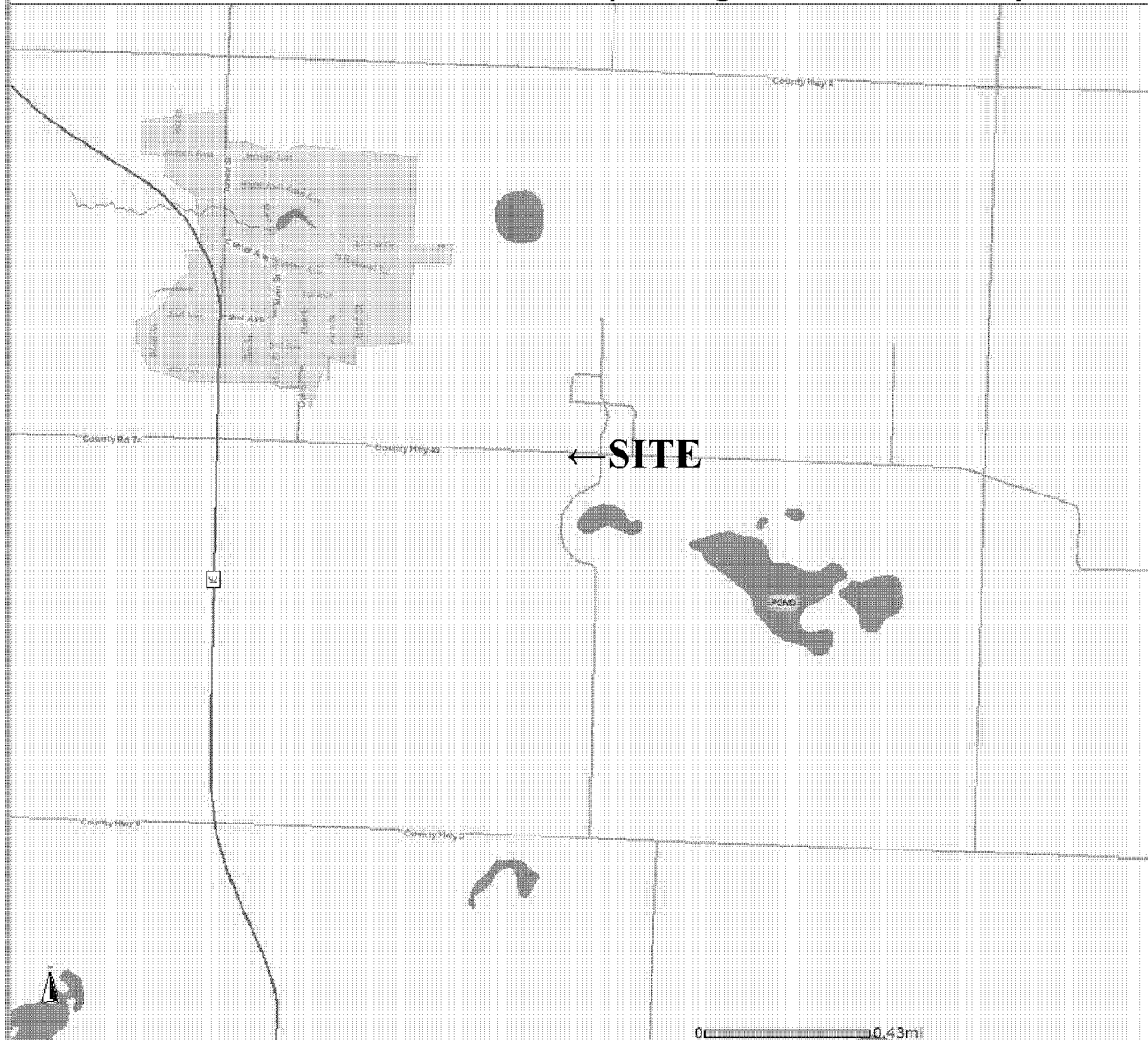
Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 23

CLEARBROOK CWI Well Map



Clearbrook What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.

128544

County Clearwater
 Quad Clearbrook
 Quad ID 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/07/1988
 Update Date 01/06/2005
 Received Date

Well Name MINNESOTA PIPELINE		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 149 37 W 29 CDB Elevation Method		51 ft.	51 ft.	07/21/1979		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Jetted				
Geological Material CLAY CLAY SAND & GRAVEL Color RED GRAY BROWN Hardness SOFT SOFT HARD From To 0 36 36 47 47 51		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From Ft. to Ft.			
		Use Domestic				
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.				
		Casing Diameter		Weight	Hole Diameter	
		3 in. to 42 ft.		7.7 lbs./ft.		
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type stainless steel				
		Diameter		Slot/Gauze	Length	Set Between
		2			4	47 ft. and 51 ft.
Static Water Level 31 ft. from Land surface Date Measured 07/21/1979						
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS VILLAGE OF CLEARBROOK SLOT/GAUZE 10/60		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Clearwater Cty. Soil & Water Cons. Dist. Method GPS SA Cn (averaged)		Nearest Known Source of Contamination __feet __direction __type				
Unique Number Verification N/A Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
System UTM - Nad83, Zone15, Meters X: 318812 Y: 5283998		Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
		Manufacturer's name Model number __ HP _ Volts				
		Length of drop Pipe _ft. Capacity _g.p.m Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock		Well Contractor Certification				
Last Strat		Holm's Well Co. 15398 HOLM.D				
Aquifer		License Business Name Lic. Or Reg. No. Name of Driller				
Depth to Bedrock ft						
County Well Index Online Report		128544		Printed 9/12/2008 HE-01205-07		

Minnesota Unique Well No.
462903

County: Clearwater
 Quad: Clearbrook
 Quad ID: 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 08/13/1991
 Update Date: 03/11/2005
 Received Date:

Well Name: MN PIPELINE COMPANY		Well Depth: 75 ft.	Depth Completed: 60 ft.	Date Well Completed: 08/08/1990
Township Range Dir Section Subsections Elevation: 149 37 W 29		Elevation Method: Calc from DEM (USGS 7.5 m or equiv.)		
Drilling Method: Cable Tool		Drilling Fluid: Water		
Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		From -ft. to Ft.		
Use: Industrial				
Casing Type: Plastic Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter		Weight		Hole Diameter
14 in. to 38 ft.		54.6 lbs./ft.		
8 in. to 48 ft.		49.6 lbs./ft.		
Open Hole from ft. to ft.				
Screen YES Make JOHNSON Type stainless steel				
Diameter		Slot/Gauze	Length	Set Between
7.5		30	15	45 ft. and 60 ft.
Static Water Level: 15 ft. from Land surface Date Measured 08/07/1990				
PUMPING LEVEL (below land surface): 18 ft. after 60 hrs. pumping 60 g.p.m.				
Well Head Completion: Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Neat Cement from 0 to 43 ft. 25 bags				
Nearest Known Source of Contamination: ___feet ___direction ___type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number ___ HP ___ Volts				
Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Renner E.H. Well		71015	COX_A	
License Business Name		Lic. Or Reg. No.	Name of Driller	
First Bedrock: Last Strat		Aquifer: Depth to Bedrock ft.		
County Well Index Online Report		462903	Printed 9/12/2008 HE-01205-07	

Minnesota Unique Well No.

469124

County: Clearwater
 Quad: Clearbrook
 Quad ID: 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 08/29/1991
 Update Date: 12/20/2007
 Received Date:

Well Name: MAEN, RICHARD Township Range Dir Section Subsections Elevation: 1346 ft. 149 37 W 34 Elevation Method Calc from DEM (USGS 7.5 m or equiv.)	Well Depth: 200 ft. Depth Completed: 197 ft. Date Well Completed: 06/05/1991 Drilling Method: Non-specified Rotary																																																																
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td>BROWN</td><td>MEDIUM</td><td>0</td><td>17</td></tr> <tr><td>CLAY & GRAVEL</td><td>BROWN</td><td>MEDIUM</td><td>17</td><td>44</td></tr> <tr><td>CLAY</td><td>BLUE</td><td>MEDIUM</td><td>44</td><td>56</td></tr> <tr><td>ROCK</td><td>GRAY</td><td>V.HARD</td><td>56</td><td>57</td></tr> <tr><td>CLAY</td><td>BROWN</td><td>MEDIUM</td><td>57</td><td>66</td></tr> <tr><td>SAND & CLAY</td><td>BROWN</td><td>MEDIUM</td><td>66</td><td>175</td></tr> <tr><td>FINE SAND</td><td>RED</td><td>MEDIUM</td><td>175</td><td>180</td></tr> <tr><td>SAND</td><td>BROWN</td><td>MEDIUM</td><td>180</td><td>197</td></tr> <tr><td>SAND</td><td>RED</td><td>MEDIUM</td><td>197</td><td>200</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY	BROWN	MEDIUM	0	17	CLAY & GRAVEL	BROWN	MEDIUM	17	44	CLAY	BLUE	MEDIUM	44	56	ROCK	GRAY	V.HARD	56	57	CLAY	BROWN	MEDIUM	57	66	SAND & CLAY	BROWN	MEDIUM	66	175	FINE SAND	RED	MEDIUM	175	180	SAND	BROWN	MEDIUM	180	197	SAND	RED	MEDIUM	197	200	Drilling Fluid Revert: Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use: Domestic Casing Type: Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 188 ft.</td> <td>lbs./ft.</td> <td>7 in. to 200 ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make COOK Type stainless steel <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>12</td> <td>9</td> <td>188 ft. and 197 ft.</td> </tr> </tbody> </table> Static Water Level: 75 ft. from Land surface Date Measured: 06/05/1991 PUMPING LEVEL (below land surface): ft. after hrs. pumping 60 g.p.m. Well Head Completion: Pitless adapter manufacturer MAASS Model JC4 <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 188 ft.	lbs./ft.	7 in. to 200 ft.	Diameter	Slot/Gauze	Length	Set Between	2	12	9	188 ft. and 197 ft.
	Geological Material	Color	Hardness	From	To																																																												
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	SAND & CLAY	BROWN	MEDIUM	66	175																																																												
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Diameter	Slot/Gauze	Length	Set Between																																																														
2	12	9	188 ft. and 197 ft.																																																														
NO REMARKS Located: Clearwater Cty. Soil & Water Cons. Dist. Method: GPS SA Cn (averaged) Unique Number Verification: N/A Date: N/A System: UTM - Nad83, Zone15, Meters X: 319833 Y: 5283813	Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Cuttings from 0 to 10 ft. Grout Material: Neat Cement from 10 to 30 ft. Grout Material: Bentonite from 30 to ft. Nearest Known Source of Contamination: 65 feet E direction Barnyard type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: 06/07/1991 Manufacturer's name: AERMATOR Model number: AB1250 HP: 0.5 Volts: 230 Length of drop Pipe: 100 ft. Capacity: 12 g.p.m. Type: Submersible Material:																																																																
First Bedrock: Last Strat Unknown deposit type Aquifer: Depth to Bedrock ft	Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification: Holm's Well Co. License Business Name: 15398 Lic. Or Reg. No. HOLM.D Name of Driller																																																																
County Well Index Online Report	469124 Printed 9/12/2008 HE-01205-07																																																																

Minnesota Unique Well No.
535567

County Clearwater
 Quad
 Quad ID 331b

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/23/1994
 Update Date 07/13/2007
 Received Date

Well Name MW-2		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 149 37 W 29 Elevation Method		14 ft.	13.3 ft.	09/08/1993		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address CLEARBROOK MN 56634 Geological Material Color Hardness From To CLAY OL/BRN HARD 0 8 CLAY GRAY 8 12 CLAY BROWN 12 14		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 3.3 ft.		0.69 lbs./ft.	8.25 in. to 13.5 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	10	3.3 ft. and 13.3 ft.
Static Water Level 12.2 ft. from Land surface Date Measured 09/09/1993						
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS MW-2, 93364		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Clearwater Cty. Soil & Water Cons. Dist. Method GPS SA Cn (averaged)		Grout Material: Bentonite from 1.8 to 2.8 ft.				
Unique Number Verification Tag on well Date N/A		Grout Material: CONCRETE from to 1.8 ft.				
System UTM - Nad83, Zone15, Meters X: 319007 Y: 5284702		Nearest Known Source of Contamination __feet __direction __type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP __ Volts Length of drop Pipe __ft. Capacity __g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification Bay West MC120 License Business Name Lic. Or Reg. No. Name of Driller						
First Bedrock		Aquifer				
Last Strat		Depth to Bedrock ft				
County Well Index Online Report		535567		Printed 9/12/2008 HE-01205-07		

Minnesota Unique Well No.
535568

County Clearwater
 Quad Clearbrook
 Quad ID 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/23/1994
 Update Date 07/13/2007
 Received Date

Well Name MW-3		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 149 37 W 29 Elevation Method		1325 ft.	13 ft.	09/08/1993		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address CLEARBROOK MN Geological Material Color Hardness From To CLAY OLV/BRN 0 8 CLAY GRAY 8 12 CLAY DK. GRY 12 13		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 3 ft.		0.69 lbs./ft.	8.25 in. to 13.2 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	10	3 ft. and 13 ft.
Static Water Level						
1 ft. from Land surface Date Measured 09/09/1993						
PUMPING LEVEL (below land surface)						
ft. after hrs. pumping g.p.m.						
Well Head Completion						
Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
MW-3, 93364		Grout Material: Bentonite from 1.5 to 2.5 ft.				
Located Clearwater Cty. Soil & Water Cons. Dist. Method GPS SA On (averaged)		Grout Material: CONCRETE from to 1.5 ft.				
Unique Number Verification Other, note in remarks Date N/A		Nearest Known Source of Contamination				
System UTM - Nad83, Zone15, Meters X: 318856 Y: 529484E		__feet __direction __type				
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
		Manufacturer's name Model number __ HP _ Volts				
		Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Well Contractor Certification				
First Bedrock		Bay West		MC120		
Last Strat		License Business Name		Lic. Or Reg. No. Name of Driller		
Aquifer						
Depth to Bedrock ft						
County Well Index Online Report		535568		Printed 9/12/2008 HE-01205-07		

Minnesota Unique Well No.
535569

County Clearwater
 Quad Clearbrook
 Quad ID 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/23/1994
 Update Date 07/13/2007
 Received Date

Well Name MW-4		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 149 37 W 29 Elevation Method		13 25 ft.	13 ft.	09/08/1993	
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)			
Well Address CLEARBROOK MN Geological Material SILTY CLAY CLAY Color RED GRAY Hardness SOFT GRAY From To 0 4 4 13		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Monitor well			
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		2 in. to 3 ft.	lbs./ft.	8.25 in. to 13.2 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type plastic			
		Diameter	Slot/Gauze	Length	Set Between
		2	10	10	3 ft. and 13 ft.
Static Water Level 2 ft. from Land surface Date Measured 09/09/1993					
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.					
Well Head Completion Pitless adapter manufacturer Model					
<input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade					
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
REMARKS MW-4, 93364		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Clearwater Cty. Soil & Water Cons. Dist. Method GPS SA Cn (averaged)		Grout Material: Bentonite from 1.5 to 2.5 ft.			
Unique Number Verification Tag on well Date N/A		Grout Material: CONCRETE from to 1.5 ft.			
System UTM - Nad83, Zone15, Meters X: 318760 Y: 5284729		Nearest Known Source of Contamination __feet __direction __type			
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed					
Manufacturer's name Model number __ HP _ Volts					
Length of drop Pipe _ft. Capacity _g.p.m. Type Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification					
First Bedrock		Bay West		MC120	
Last Strat		License Business Name		Lic. Or Reg. No. Name of Driller	
County Well Index Online Report		535569		Printed 9/12/2008 HE-01205-07	

Minnesota Unique Well No.
636509

County Clearwater
 Quad Clearbrook
 Quad ID 331B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 02/14/2000
 Update Date 03/11/2005
 Received Date

Well Name MN PIPELINE CO.		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		142 ft.	141 ft.	09/01/1999
149 37 W 32 AAA	Elevation Method	Calc from DEM (USGS 7.5 m or equiv.)		
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Bentonite		From -ft. to Ft.		
Use Industrial				
Casing Type Steel (black or low carbon)		Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Above/Below ft.				
Casing Diameter		Weight	Hole Diameter	
12 in. to 111 ft.		lbs./ft.	18 in. to 142 ft.	
Open Hole from ft. to ft.				
Screen YES Make JOHNSON Type stainless steel				
Diameter		Slot/Gauze	Length	Set Between
12		65	30	111 ft. and 141 ft.
Static Water Level				
10 ft. from Land surface Date Measured 09/01/1999				
PUMPING LEVEL (below land surface)				
141 ft. after 6 hrs. pumping 250 g.p.m.				
Well Head Completion				
Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Neat Cement from 0 to 30 ft. 2 yds.				
Grout Material: Bentonite from 30 to 40 ft. 30 bags				
Nearest Known Source of Contamination				
_feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number __ HP __ Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Traut M.I. Well Co.		71536		
License Business Name		Lic. Or Reg. No.		Name of Driller
First Bedrock		Aquifer		
Last Strat		Depth to Bedrock ft.		
County Well Index Online Report		636509		Printed 9/12/2008 HE-01205-07

- **Cloquet**

SITE SUMMARY

Site Name: Cloquet

Fire Department: Cloquet Fire Department
508 Cloquet Ave.
Cloquet, MN 55720

Site Contact: Jim Langenbrunner, Fire Chief
218-879-6514
james_langenbrunner@hotmail.com

Training Location: Gravel pit next to city garage at 410 Armory Road, Cloquet

Training Location Coordinates (X,Y): 540964.06, 5172881.85

Type of foam used in training: AR-AFFF: Angus
Class A: Angus
Other: Dawn dish soap

Foam training frequency: Bi-Annually

Foam use per training event: 5 to 10 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: less than 10 gallons
Class A: Less than 10 gallons

Nearest surface water: Unnamed stream approximately 1/2 mile south

Nearest wetland: On or adjacent to site

Karst Area: Site is not located in a karst area.

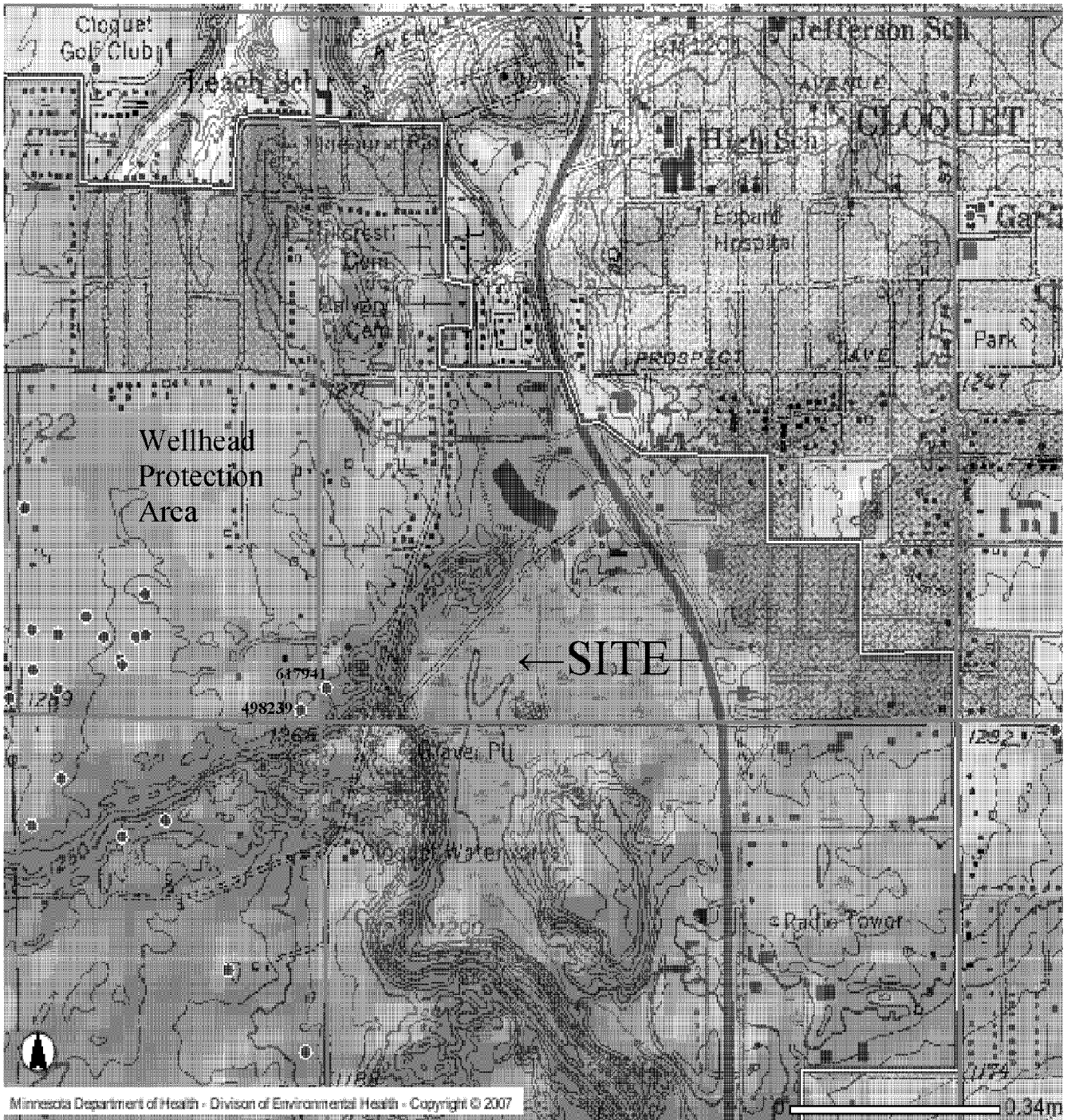
Nearest water well: 1/4 to 1/2 mile west

Nearest Wellhead Protection Area: Site is located in a WPA

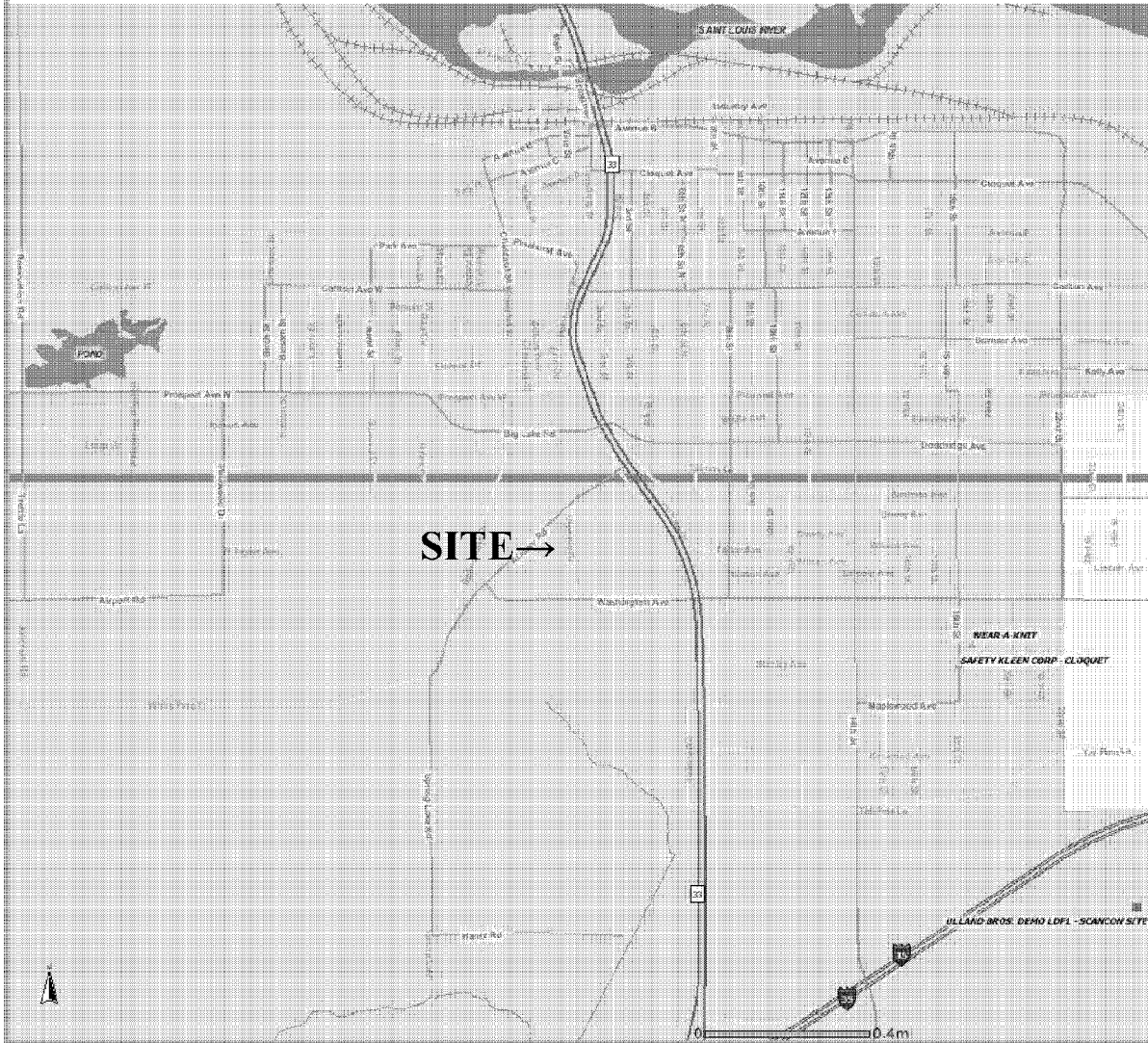
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 12

CLOQUET CWI Well Map



Cloquet What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - ▲ Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
498239

County: Carlton
 Quad: Cloquet
 Quad ID: 224B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 01/27/1993
 Update Date: 05/30/2006
 Received Date:

Well Name REYNOLDS, JACK Township Range Dir Section Subsections Elevation 49 17 W 22 DDDCA 1270 ft. Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 122 ft. Depth Completed 122 ft. Date Well Completed 03/27/1992 Drilling Method Non-specified Rotary																																																											
Well Address 1209 OAK ST S CLOQUET MN 55720	Drilling Fluid Water Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>COARSE GRAVEL</td><td>BROWN</td><td>HARD</td><td>0</td><td>22</td></tr> <tr><td>SAND</td><td>RED</td><td>SOFT</td><td>22</td><td>25</td></tr> <tr><td>SANDY GRAVEL</td><td>BROWN</td><td>HARD</td><td>25</td><td>37</td></tr> <tr><td>FINE SAND</td><td>RED</td><td>SOFT</td><td>37</td><td>80</td></tr> <tr><td>MEDIUM SAND</td><td>BROWN</td><td>SOFT</td><td>80</td><td>105</td></tr> <tr><td>CLAY & ROCKS</td><td>RED</td><td>MEDIUM</td><td>105</td><td>115</td></tr> <tr><td>SAND & FINE GRAVEL</td><td>BROWN</td><td>SOFT</td><td>115</td><td>119</td></tr> <tr><td>SLATE ROCKS</td><td>GRAY</td><td>MEDIUM</td><td>119</td><td>122</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	COARSE GRAVEL	BROWN	HARD	0	22	SAND	RED	SOFT	22	25	SANDY GRAVEL	BROWN	HARD	25	37	FINE SAND	RED	SOFT	37	80	MEDIUM SAND	BROWN	SOFT	80	105	CLAY & ROCKS	RED	MEDIUM	105	115	SAND & FINE GRAVEL	BROWN	SOFT	115	119	SLATE ROCKS	GRAY	MEDIUM	119	122	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>6 in. to 119 ft.</td> <td>18.97 lbs./ft.</td> <td>6 in. to 122 ft.</td> </tr> </tbody> </table> Open Hole from 119 ft. to 122 ft. Screen NO Make Type <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Static Water Level 70 ft. from land surface Date Measured 03/27/1992 PUMPING LEVEL (below land surface) 119 ft. after 1 hrs. pumping 7 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	6 in. to 119 ft.	18.97 lbs./ft.	6 in. to 122 ft.	Diameter	Slot/Gauze	Length	Set Between				
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Diameter	Slot/Gauze	Length	Set Between																																																									
NO REMARKS	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																											
Located Carlton Cty Soil & Water Cons. Dist. Method Digitization (Screen) - Map (1:24,000) Unique Number Verification N/A Date 08/27/2004 System UTM - Nad83, Zone15, Meters X: 540399 Y: 5172764	Nearest Known Source of Contamination 100 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material																																																											
First Bedrock Thomson Formation Aquifer Thomson Formation Last Strat Thomsor Formation Depth to Bedrock 119 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Sunnarborg Well Co. 09437 SUNNARBORG C License Business Name Lic. Or Reg. No. Name of Driller																																																											
County Well Index Online Report	498239 Printed 9/19/2008 HE-01205-07																																																											

Minnesota Unique Well No.
617941

County: Carlton
 Quad: Cloquet
 Quad ID: 224B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 01/10/2000
 Update Date: 05/30/2006
 Received Date:

Well Name: MARTIN, STEVE Township Range Dir Section Subsections Elevation: 49 17 W 23 CCCCBB 1281 ft. Elevation Method: 7.5 minute topographic map (+/- 5 feet)	Well Depth: 136 ft. Depth Completed: 136 ft. Date Well Completed: 11/23/1998 Drilling Method: Multiple methods used								
Well Address: 1210 OAK ST S CLOQUET MN 55720 Geological Material Color Hardness From To GRAVEL BROWN HARD 0 25 SAND BROWN SOFT 25 132 GRAVEL CLAY BROWN HARD 132 136	Drilling Fluid: Water Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use: Domestic Casing Type: Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> <tr> <td>6 in. to 136 ft.</td> <td>18.97 lbs./ft.</td> <td>6 in. to 136 ft.</td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	6 in. to 136 ft.	18.97 lbs./ft.	6 in. to 136 ft.		
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	Open Hole: from 136 ft. to 136 ft. Screen NO Make Type								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between				
	Diameter	Slot/Gauze	Length	Set Between					
	Static Water Level: 65 ft. from land surface Date Measured: 11/24/1998 PUMPING LEVEL (below land surface): 120 ft. after 1 hrs. pumping 15 g.p.m.								
Well Head Completion: Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Located Minnesota Geological Survey Method: Digitization (Screen) - Map (1:24,000) Unique Number Verification Tag on well Date: 07/18/2005 System: UTM - Nad83, Zone15, Meters X: 540467 Y: 5172814									
Nearest Known Source of Contamination: 50 feet E direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material									
Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
First Bedrock: Last Strat Pebbly sand/silt/clay-brown Aquifer: Quat. Water Table Aquifer Depth to Bedrock: ft.									
County Well Index Online Report	Well Contractor Certification: Sunnarborg Well Co. 09437 SUNNARBORG H License Business Name Lic. Or Reg. No. Name of Driller								
617941	Printed 9/19/2008 HE-01205-07								

- **Crosslake**

SITE SUMMARY

Site Name: Crosslake

Fire Department: Crosslake Fire Department
37028 County Road 66
Crosslake, MN 56442

Site Contact: Keith W. Anderson, Fire Chief
218-692-3558
cfd@crossfire.net

Training Location: Joint city/county maintenance facility, 13870 Whipple

Training Location Coordinates (X,Y): 415012.46, 5168117.98

Type of foam used in training: AR-AFFF: Not specified, use of 3M-brand foam assumed.

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Sanitary Sewer

Annual foam use: AR-AFFF: 10 gallons

Nearest surface water: Cross Lake, less than 1/4 mile west and Pine River less than 1/4 mile east

Karst Area: Site is not located in a karst area.

Nearest wetland: On or adjacent to site

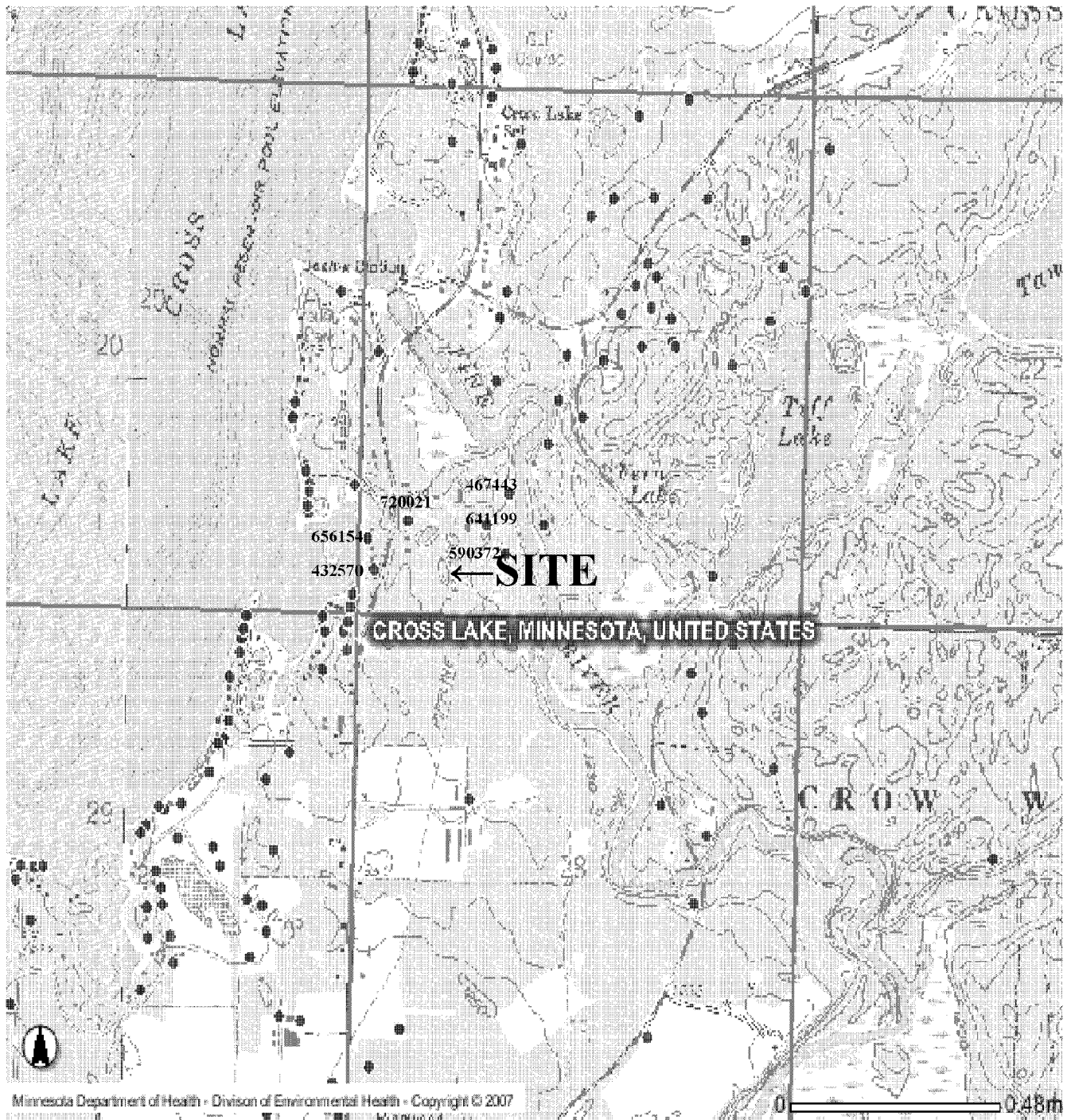
Nearest water well: On or adjacent to site

Nearest Wellhead Protection Area: More than 1 mile

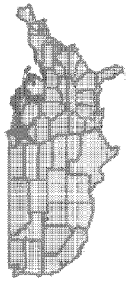
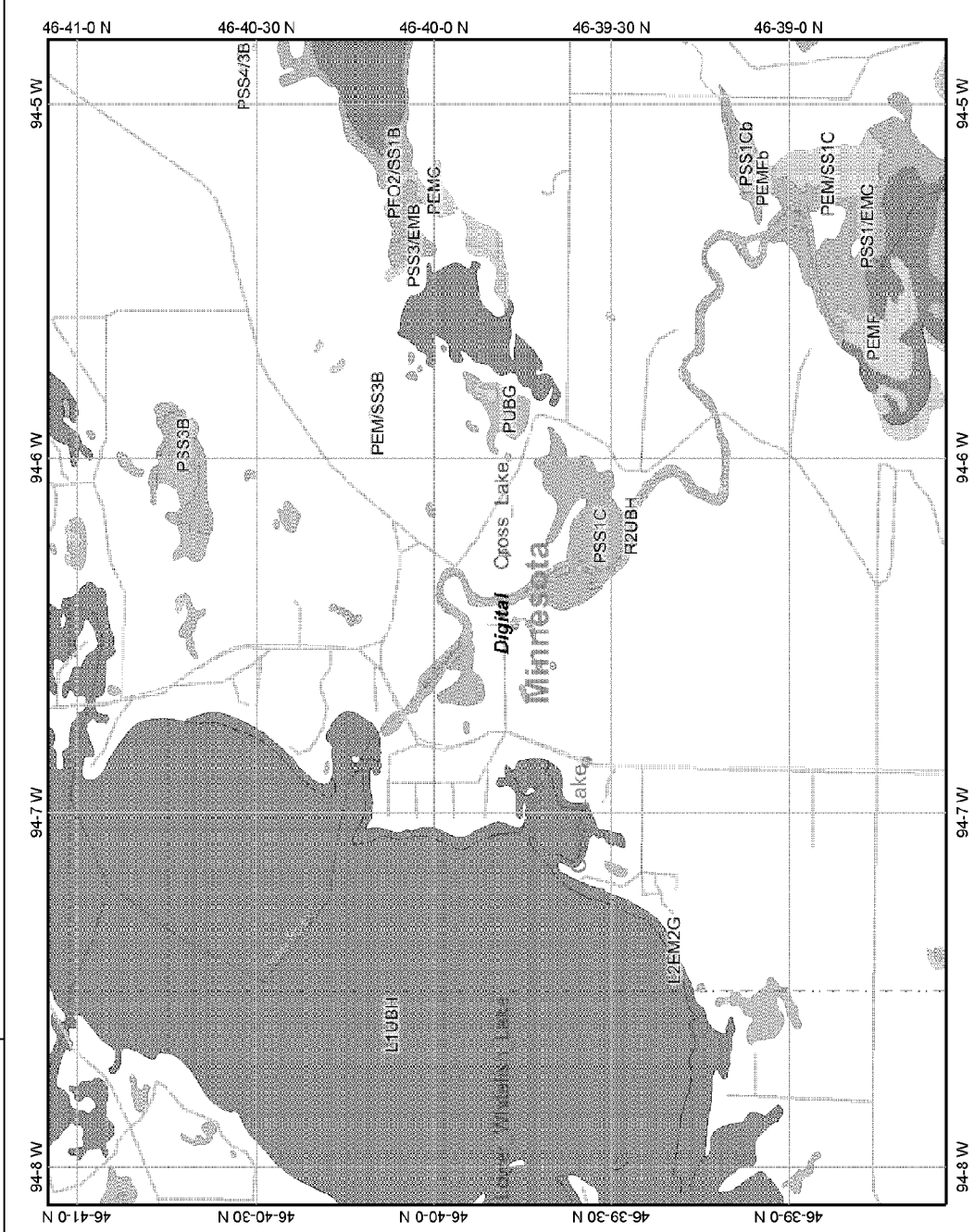
Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 21

CROSSLAKE CWI Well Map



Crosslake Wetland Map



Legend

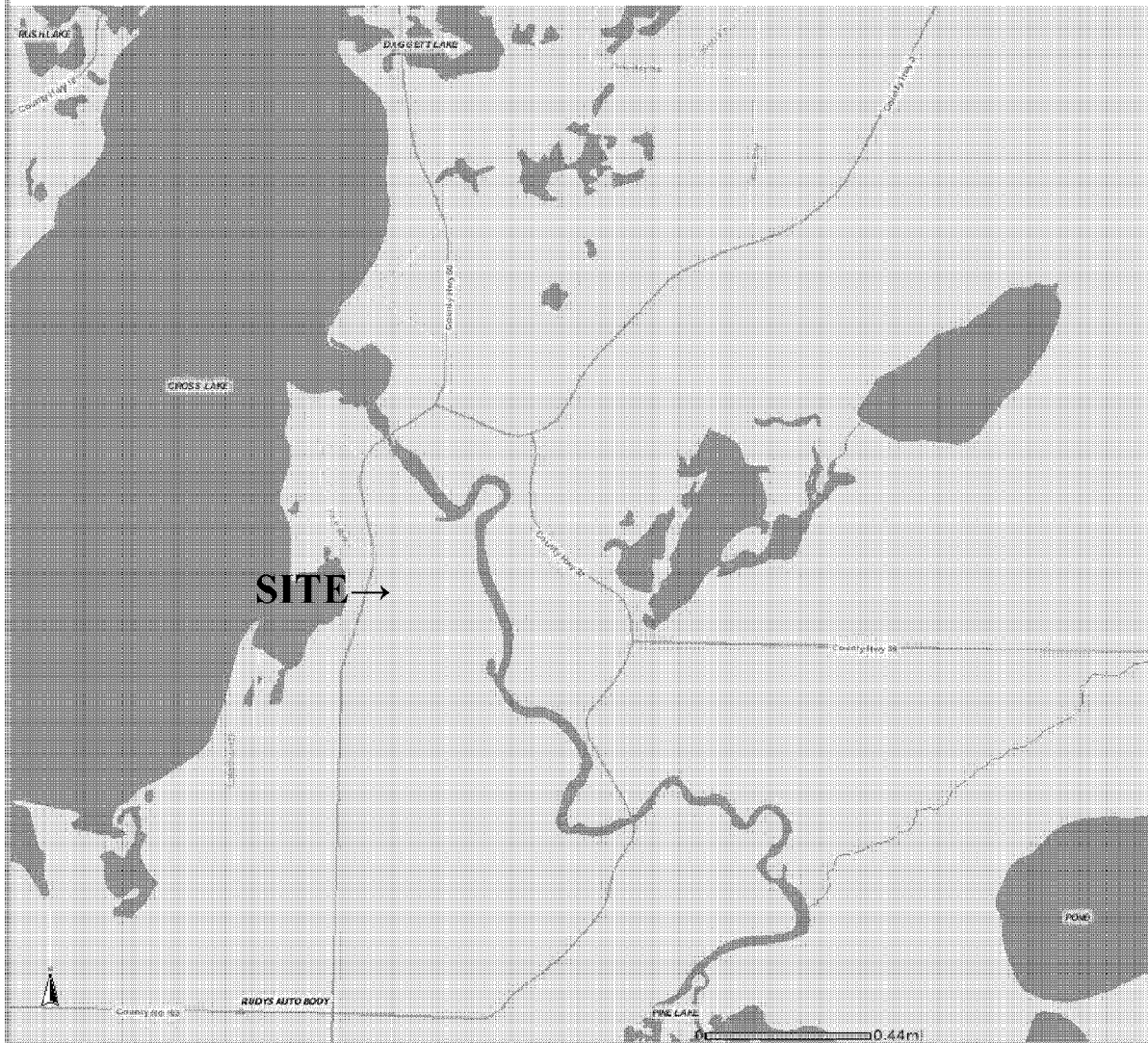
- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:32,792

Map center: 46° 39' 49" N, 94° 6' 28" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Crosslake *What's In My Neighborhood* Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.

432570

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 02/18/1991
 Update Date 01/23/2008
 Received Date

Well Name CLEATH, JIM Township Range Dir Section Subsections Elevation 1241 ft. 137 27 W 21 CCCBDC Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 54 ft. Depth Completed 54 ft. Date Well Completed 08/21/1987 Drilling Method Non-specified Rotary																																							
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>BROWN</td> <td>MEDIUM</td> <td>0</td> <td>12</td> </tr> <tr> <td>SAND</td> <td>BLUE</td> <td>SOFT</td> <td>12</td> <td>33</td> </tr> <tr> <td>CLAY</td> <td>BLUE</td> <td>SOFT</td> <td>33</td> <td>47</td> </tr> <tr> <td>SAND</td> <td>LIGHT</td> <td>SOFT</td> <td>47</td> <td>54</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND	BROWN	MEDIUM	0	12	SAND	BLUE	SOFT	12	33	CLAY	BLUE	SOFT	33	47	SAND	LIGHT	SOFT	47	54	Drilling Fluid Bertonite Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 54 ft.</td> <td>lbs./ft.</td> <td>7.5 in. to 54 ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type stainless steel <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>15</td> <td>8</td> <td>50 ft. and 54 ft.</td> </tr> </tbody> </table> Static Water Level 18 ft. from Land surface Date Measured 08/21/1987 PUMPING LEVEL (below land surface) 40 ft. after 1 hrs. pumping 8 g.p.m. Well Head Completion Pitless adapter manufacturer WHITEWATER Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 54 ft.	lbs./ft.	7.5 in. to 54 ft.	Diameter	Slot/Gauze	Length	Set Between	2	15	8	50 ft. and 54 ft.
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REMARKS BOWER'S ADD/OUTLOT A PART OF LOT 5. Located Method GPS SA On (averaged) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 414809 Y: 5168153	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 6 to 40 ft. 0.33 yds. Nearest Known Source of Contamination 80 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 08/21/1987 Manufacturer's name MEYERS Model number S111 HP 0.5 Volts 115 Length of drop Pipe 40 ft. Capacity 8 g.p.m. Type Submersible Material Plastic																																							
First Bedrock Last Strat Sand Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Lambert Well Co. 18434 LAMBERT V. License Business Name Lic. Or Reg. No. Name of Driller																																							
County Well Index Online Report	432570																																							
Printed 9/16/2008 HE-01205-07																																								

Minnesota Unique Well No.
467443

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/16/1992
 Update Date 02/13/2002
 Received Date

Well Name RIVERWOOD PARTNERS Township Range Dir Section Subsections Elevation 1231 ft. 137 27 W 21 CDBABA Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 80 ft. Depth Completed 80 ft. Date Well Completed 08/23/1990 Drilling Method Non-specified Rotary																																							
Well Address BOX 48 NISSWA MN 56468 <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>0</td> <td>32</td> </tr> <tr> <td>SAND</td> <td>GRAY</td> <td>SOFT</td> <td>32</td> <td>44</td> </tr> <tr> <td>CLAY</td> <td>BLUE</td> <td>SOFT</td> <td>44</td> <td>70</td> </tr> <tr> <td>SAND</td> <td>RED</td> <td>SOFT</td> <td>70</td> <td>80</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND	BROWN	SOFT	0	32	SAND	GRAY	SOFT	32	44	CLAY	BLUE	SOFT	44	70	SAND	RED	SOFT	70	80	Drilling Fluid Bertonite Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 72 ft.</td> <td>lbs./ft.</td> <td>8.5 in. to 80 ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type stainless steel <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>12</td> <td>8</td> <td>72 ft. and 80 ft.</td> </tr> </tbody> </table> Static Water Level 6 ft. from Land surface Date Measured 08/23/1990 PUMPING LEVEL (below land surface) 35 ft. after 1 hrs. pumping 40 g.p.m. Well Head Completion Pitless adapter manufacturer WHITEWATER Model STEEL <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 72 ft.	lbs./ft.	8.5 in. to 80 ft.	Diameter	Slot/Gauze	Length	Set Between	2	12	8	72 ft. and 80 ft.
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	2	12	8	72 ft. and 80 ft.																																				
NO REMARKS Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from neighbor Date N/A System UTM - Nad83, Zone15, Meters X: 415301 Y: 5168383	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 6 to 40 ft. 0.33 yds. Nearest Known Source of Contamination 100 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 08/23/1990 Manufacturer's name MEYERS Model number SD75 HP 1.5 Volts 220 Length of drop Pipe 60 ft. Capacity 30 g.p.m. Type Submersible Material																																							
First Bedrock Last Stral Sand-red Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Lambert Well Co. 18434 LAMBERT V License Business Name Lic. Or Reg. No. Name of Driller																																							
County Well Index Online Report	467443 Printed 9/16/2008 HE-01205-07																																							

Minnesota Unique Well No.
590372

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 02/07/1997
 Update Date 02/13/2002
 Received Date

Well Name SVEDVIK, ROY AND ANN		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 137 27 W 21 CDCABA Elevation Method		86 ft.	86 ft.	11/06/1996	
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary			
Well Address HCR 3 CROSSLAKE MN 56442 35202 RIVERWOOD TR Geological Material SAND CLAY SAND Color BROWN GRAY WHITE Hardness SOFT MEDIUM SOFT From To 0 34 34 80 80 86		Drilling Fluid Bentonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Use Domestic			
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		4 in. to 81 ft.	lbs./ft.	8 in. to 86 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type stainless steel			
		Diameter	Slot/Gauze	Length	Set Between
		2	12	5	81 ft. and 86 ft.
		Static Water Level -1 ft. from Land surface Date Measured 11/06/1996			
PUMPING LEVEL (below land surface) 20 ft. after 1 hrs. pumping 85 g.p.m.					
Well Head Completion Pitless adapter manufacturer BAKER Model BOLT ON <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000)		Grout Material: Neat Cement from 0 to 80 ft. 18 bags			
Unique Number Verification Information from neighbor Date N/A		Nearest Known Source of Contamination 90 feet S direction Septic tank/drain field type			
System UTM - Nad83, Zone15, Meters X: 415287 Y: 5168199		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 11/06/1996			
		Manufacturer's name MEYERS Model number SJ11 HP 0.5 Volts 220 Length of drop Pipe 40 ft. Capacity 12 g.p.m. Type Submersible Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock		Well Contractor Certification			
Last Strat Sand-white		Lambert Well Co. 18434 LAMBERT V. License Business Name Lic. Or Reg. No. Name of Driller			
County Well Index Online Report		590372		Printed 9/16/2008 HE-01205-07	

Minnesota Unique Well No.
641199

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 07/06/2000
 Update Date 03/11/2005
 Received Date

Well Name BACKDAHL, JOHN		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 137 27 W 21 CDBCAC Elevation Method		94 ft.	94 ft.	02/21/2000	
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary			
Well Address 14031 RIVESWOOD LA CROSSLAKE MN 56442 Geological Material Color Hardness From To SAND BROWN SOFT 0 26 CLAY GRAY HARD 26 86 SAND GRAY SOFT 86 94		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Bentonite	From -ft. to Ft.		
		Use Domestic			
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		4 in. to 90 ft.	lbs./ft.	8 in. to 94 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type stainless steel			
		Diameter	Slot/Gauze	Length	Set Between
		3	12	4	90 ft. and 94 ft.
Static Water Level 10 ft. from Land surface Date Measured 02/21/2000					
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.					
Well Head Completion Pitless adapter manufacturer BAKER Model BULLDOG <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from neighbor Date N/A System UTM - Nad83, Zone15, Meters X: 415219 Y: 5168289		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Grout Material: High solids bentonite from 0 to 60 ft. 8 bags			
		Nearest Known Source of Contamination 50 feet North East direction Septic tank/drain field type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock Last Strat Sand-gray Aquifer Quat Buried Artes. Aquifer Depth to Bedrock ft		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 02/21/2000 Manufacturer's name STA-RITE Model number HP 0.5 Volts 230 Length of drop Pipe 75 ft. Capacity g.p.m. type Submersible Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
County Well Index Online Report		Well Contractor Certification			
		Northland Drilling, Inc. License Business Name	49697 Lic. Or Reg. No.	PUGH, G. Name of Driller	
		641199		Printed 9/16/2008 HE-01205-07	

Minnesota Unique Well No.
656154

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 02/20/2001
 Update Date 03/11/2005
 Received Date

Well Name KURILLA, KIM		Well Depth	Depth Completed	Date Well Completed																																													
Township Range Dir Section Subsections Elevation 137 27 W 21 CCBCCA Elevation Method		78 ft.	78 ft.	09/27/2000																																													
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary																																															
<table border="1"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>SAND</td><td>BROWN</td><td>SOFT</td><td>0</td><td>6</td></tr> <tr><td>SAND</td><td>GRAY</td><td>SOFT</td><td>6</td><td>25</td></tr> <tr><td>CLAY</td><td>GRAY</td><td>SOFT</td><td>25</td><td>32</td></tr> <tr><td>SAND</td><td>GRAY</td><td>SOFT</td><td>32</td><td>34</td></tr> <tr><td>CLAY</td><td>GRAY</td><td>MEDIUM</td><td>34</td><td>45</td></tr> <tr><td>SAND</td><td>GRAY</td><td>SOFT</td><td>45</td><td>50</td></tr> <tr><td>CLAY/ ROCKS</td><td>GRAY</td><td>HARD</td><td>50</td><td>71</td></tr> <tr><td>SAND/ ROCKS</td><td>GRAY</td><td>MEDIUM</td><td>71</td><td>78</td></tr> </tbody> </table>		Geological Material	Color	Hardness	From	To	SAND	BROWN	SOFT	0	6	SAND	GRAY	SOFT	6	25	CLAY	GRAY	SOFT	25	32	SAND	GRAY	SOFT	32	34	CLAY	GRAY	MEDIUM	34	45	SAND	GRAY	SOFT	45	50	CLAY/ ROCKS	GRAY	HARD	50	71	SAND/ ROCKS	GRAY	MEDIUM	71	78	Drilling Fluid Bentonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.	
		Geological Material	Color	Hardness	From	To																																											
		SAND	BROWN	SOFT	0	6																																											
		SAND	GRAY	SOFT	6	25																																											
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		CLAY/ ROCKS	GRAY	HARD	50	71																																											
		SAND/ ROCKS	GRAY	MEDIUM	71	78																																											
Use Domestic			Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.																																														
Casing Diameter		Weight	Hole Diameter																																														
4 in. to 74 ft.		lbs./ft.																																															
Open Hole from ft. to ft.																																																	
Screen YES Make JOHNSON Type stainless steel																																																	
Diameter		Slot/Gauze	Length	Set Between																																													
3		15	4	74 ft. and 78 ft.																																													
Static Water Level 10 ft. from Land surface Date Measured 09/27/2000																																																	
PUMPING LEVEL (below land surface) ft. after hrs. pumping 12 g.p.m.																																																	
Well Head Completion Pitless adapter manufacturer BAKER Model BULLDOG <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																																	
NO REMARKS Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from neighbor Date N/A System UTM - Nad83, Zone15, Meters X: 414786 Y: 5168247		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																															
		Grout Material: High solids bentonite from 0 to 40 ft. 6 bags																																															
		Nearest Known Source of Contamination 44 feet N direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																															
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 10/05/2000 Manufacturer's name STARITE Model number HP 0.5 Volts 230 Length of drop Pipe 58 ft. Capacity 10 g.p.m. Type Submersible Material																																															
First Bedrock Last Strat Sand & larger-gray Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																															
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																															
		Well Contractor Certification Northland Drilling, Inc. 49697 PUGH, G. License Business Name Lic. Or Reg. No. Name of Driller																																															
County Well Index Online Report		656154		Printed 9/16/2008 HE-01205-07																																													

Minnesota Unique Well No.

720021

County Crow Wing
 Quad Cross Lake
 Quad ID 231A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 03/10/2005
 Update Date 05/18/2006
 Received Date 01/25/2005

Well Name CLSON, DAVID & KATHY		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation		63 ft.	63 ft.	09/23/2004		
137 27 W 21 CCBD Elevation Method		Calc from DEM (USGS 7.5 m or equiv.)				
Drilling Method Non-specified Rotary						
Well Address 10304 SQUAW POINT RD MN Geological Material Color Hardness From To SAND BROWN SOFT 0 10 CLAY GRAY MEDIUM 10 25 SANDY CLAY GRAY MEDIUM 25 55 SAND GRAY SOFT 55 63		Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Bentonite		From Ft. to Ft.		
		Use Domestic				
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		4 in. to 58 ft.		lbs./ft.	8 in. to 63 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type stainless steel				
		Diameter		Slot/Gauze	Length	Set Between
		2		12	5	58 ft. and 63 ft.
Static Water Level						
3 ft. from Land surface Date Measured 09/23/2004						
PUMPING LEVEL (below land surface)						
50 ft. after 1 hrs. pumping 25 g.p.m.						
Well Head Completion						
Pitless adapter manufacturer BAKER Model BOLT ON						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Grout Material: High solids bentonite from to 45 ft. 5 bags						
Nearest Known Source of Contamination						
0 feet direction type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 09/23/2004						
Manufacturer's name JACUZZI Model number HP 1.5 Volts 220						
Length of drop Pipe 40 ft. Capacity 12 g.p.m. Type Submersible Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
Lambert Water Wells, Inc.		18691	LAMBERT L.			
License Business Name		Lic. Or Reg. No.	Name of Driller			
First Bedrock		Aquifer				
Last Strat		Depth to Bedrock ft				
County Well Index Online Report		720021		Printed 9/16/2008 HE-01205-07		

- **Dilworth**

SITE SUMMARY

Site Name: Dilworth

Fire Department: Dilworth Fire Department
709 1st Ave. NW
Dilworth, MN 56529

Site Contact: Kurt Kennedy, Fire Chief
218-287-2248

Training Location: Fire hall, 709 1st Ave. NW

Training Location Coordinates (X,Y): 217020.05, 5198266.14

Type of foam used in training: Class B Hi Expansion Foam: Ansul 3-6%
Class A: Ansul Silv-ex

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class B Hi Expansion Foam: 5 gallons
Class A: less than 5 gallons

Nearest surface water: Drainage ditch less than 1/4 mile north

Nearest wetland: 1/4 to 1/2 mile southwest

Karst Area: Site is not located in a karst area

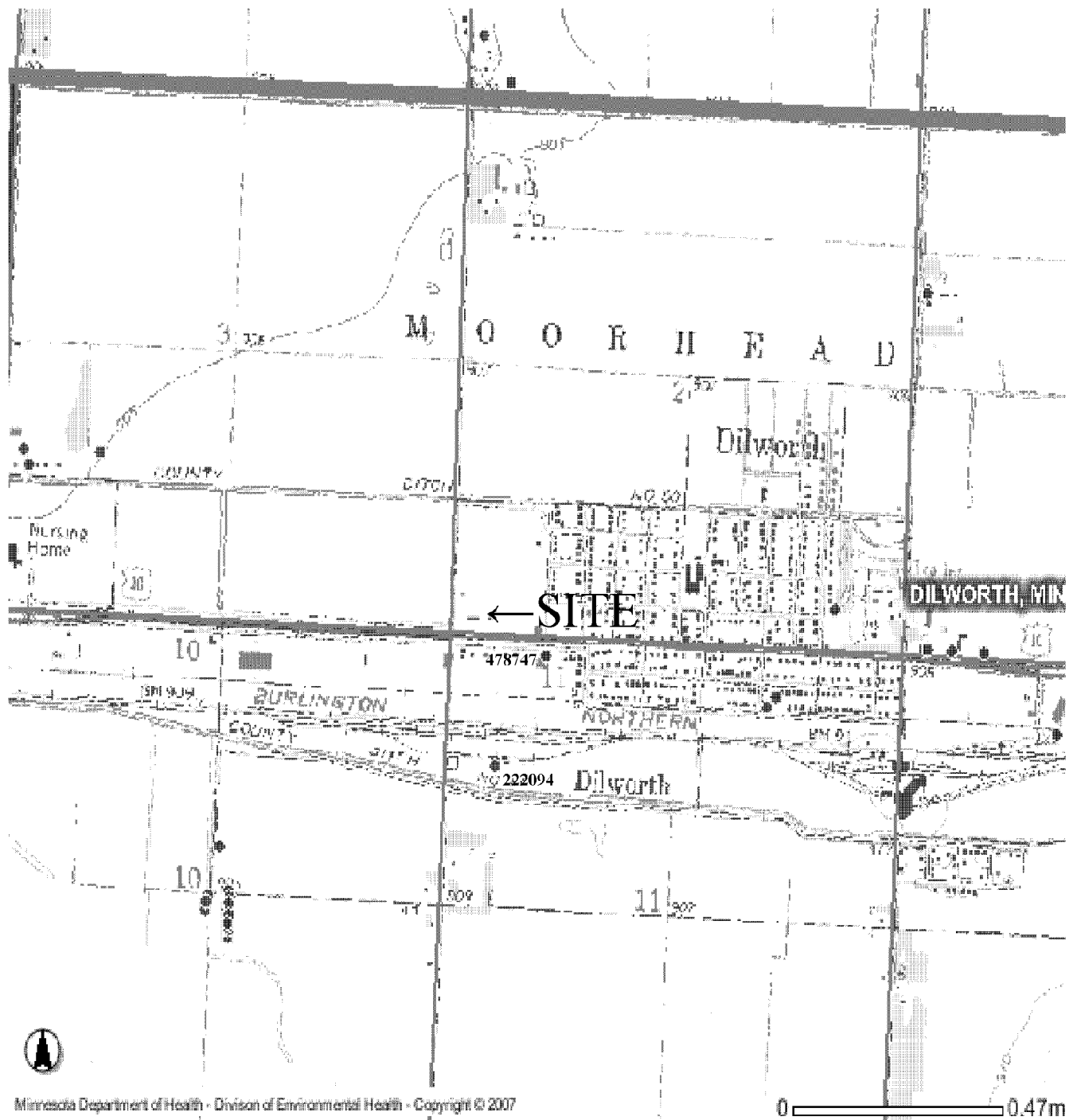
Nearest water well: Less than 1/4 mile southwest

Nearest Wellhead Protection Area: More than 1 mile

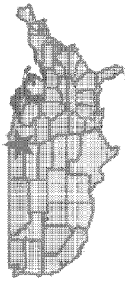
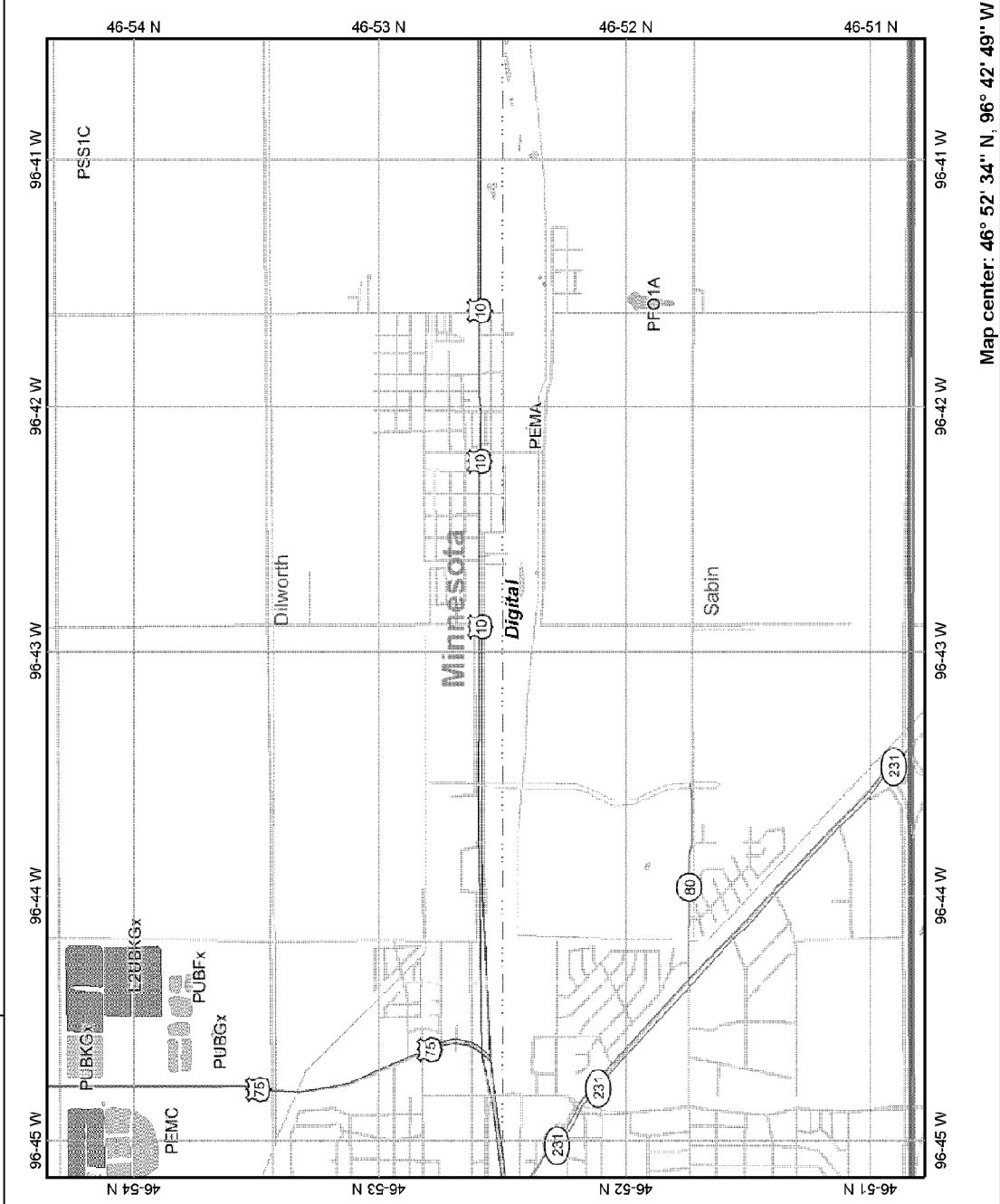
Nearest Source Water Assessment Area: Less than 1/2 mile

SITE RANKING: 11

DILWORTH CWI Well Map



Dilworth Wetland Map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:46,412



Map center: 46° 52' 34" N, 96° 42' 49" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Dilworth What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 Minnesota Pollution Control Agency

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
222094

County: Clay
 Quad: Sabin
 Quad ID: 262C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/07/1988
 Update Date: 05/06/2005
 Received Date:

Well Name: DILWORTH ICE HOUSE		Well Depth: 263 ft.	Depth Completed: 180 ft.	Date Well Completed: 03/09/1953																																																																																										
Township Range Dir Section Subsections Elevation: 139 48 W 11 BBCDDD 906 ft.		Drilling Method: --																																																																																												
Elevation Method: 7.5 minute topographic map (+/- 5 feet)		Drilling Fluid: --																																																																																												
Well Address: DILWORTH MN		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																																																												
		From -ft. to Ft.																																																																																												
Geological Material		Use Abandoned Status Sealed																																																																																												
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.																																																																																												
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		6 in. to 183 ft. lbs./ft.																																																																																												
		Open Hole from 183 ft. to 263 ft.																																																																																												
		Screen NO Make Type																																																																																												
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		PUMPING LEVEL (below land surface): ft. after hrs. pumping g.p.m.																																																																																												
		Well Head Completion																																																																																												
		Pitless adapter manufacturer Model																																																																																												
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		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																																																																												
REMARKS WELL SEALED 01-22-1992 BY 71015 ORIGINAL USE CO - COMMERCIAL		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																																																												
		Nearest Known Source of Contamination _feet _direction _type																																																																																												
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																																																												
Unique Number Verification Other, note in remarks Date N/A		Pump <input checked="" type="checkbox"/> Not Installed Date Installed																																																																																												
System UTM - Nad83, Zone15, Meters X: 217093 Y: 5197747		Manufacturer's name Model number HP 0 Volts																																																																																												
		Length of drop Pipe _ft. Capacity _g.p.m Type Material																																																																																												
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																																																												
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																																																												
		Well Contractor Certification																																																																																												
First Bedrock Cretaceous,Undiff. Aquifer Quat. Buried Artes. Aquifer		License Business Name																																																																																												
Last Strat Cretaceous,Undiff. Depth to Bedrock 180 ft.		Lic. Or Reg. No. Name of Driller: <u>BODIN, E.</u>																																																																																												
County Well Index Online Report		222094		Printed 9/12/2008 HE-01205-07																																																																																										

Minnesota Unique Well No.
478747

County: Clay
 Quad: Dilworth
 Quad ID: 262B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 11/25/1992
 Update Date: 02/04/2008
 Received Date:

Well Name: MN DOT TRUCK STATION Township Range Dir Section Subsections Elevation: 139 48 W 11 BBAACA 905 ft. Elevation Method: 7.5 minute topographic map (+/- 5 feet)	Well Depth: 14 ft. Depth Completed: 14 ft. Date Well Completed: 03/04/1992 Drilling Method: Auger (non-specified)																			
Well Address: 10 HY DILWORTH MN 56259 Geological Material: BLACK TOPSOIL TO BLK/GRY CLAY GRAY/YELLOW SILTY CLAY GRAY/YELLOW SILTY CLAY YELLOW/BROWN WET CLAY	Drilling Fluid: -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.																			
	Use: Abandoned Status: Sealed Casing Type: Steel (black or low carbon) Joint: No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.																			
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> <tr> <td>2 in. to 4 ft.</td> <td>lbs./ft.</td> <td>2 in. to 14 ft.</td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	2 in. to 4 ft.	lbs./ft.	2 in. to 14 ft.													
	Casing Diameter	Weight	Hole Diameter																	
	2 in. to 4 ft.	lbs./ft.	2 in. to 14 ft.																	
Open Hole: from ft. to ft. Screen: YES Make: JOHNSON Type: stainless steel																				
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> <tr> <td>2</td> <td>20</td> <td>10</td> <td>4 ft. and 14 ft.</td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between	2	20	10	4 ft. and 14 ft.												
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> <tr> <td></td> <td>SOFT</td> <td>0</td> <td>2</td> </tr> <tr> <td></td> <td>SOFT</td> <td>2</td> <td>4</td> </tr> <tr> <td></td> <td>SOFT</td> <td>4</td> <td>10</td> </tr> <tr> <td></td> <td></td> <td>10</td> <td>14</td> </tr> </table>	Color	Hardness	From	To		SOFT	0	2		SOFT	2	4		SOFT	4	10			10	14
Color	Hardness	From	To																	
	SOFT	0	2																	
	SOFT	2	4																	
	SOFT	4	10																	
		10	14																	
REMARKS: WELL SEALED 07-15-1996 BY 27058 ORIGINAL USE MW - MONITOR WELL Located: Minnesota Department of Health Method: Digitization (Screen) - Map (1:24,000) Unique Number Verification: N/A Date: 07/22/2004 System: UTM - Nad83, Zone15, Meters X: 217275 Y: 5198075	Static Water Level: 6.3 ft. from Land surface Date Measured: 03/04/1992 PUMPING LEVEL (below land surface): ft. after hrs. pumping g.p.m. Well Head Completion: Pitless adapter manufacturer: Model: <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																			
First Bedrock: Last Strat:	Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from to 2 ft. Nearest Known Source of Contamination: ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material																			
Aquifer: Depth to Bedrock: ft.	Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification: Thein Well Co. 34060 HERRBOLDT, N. License Business Name Lic. Or Reg. No. Name of Driller																			
County Well Index Online Report	478747 Printed 9/12/2008 HE-01205-07																			

- **Elysian**

SITE SUMMARY

Site Name: Elysian

Fire Department: Elysian Fire Department
202 E. Main Street
Box 9
Elysian, MN 56028

Site Contact: Fire Chief Jason James
507-327-3071

Training Location: Fire hall, 202 E. Main Street

Training Location Coordinates (X,Y): 446216.8, 4894163.44

Type of foam used in training: AFFF: unsure of brand, doesn't believe ever use 3M brand
Class A: unsure of brand

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: Less than 5 gallons
Class A: Less than 5 gallons

Nearest surface water: Lake Elysian less than 1/4 mile southeast

Nearest wetland: Less than 1/4 mile northeast

Karst Area: Site is located in a covered karst area.

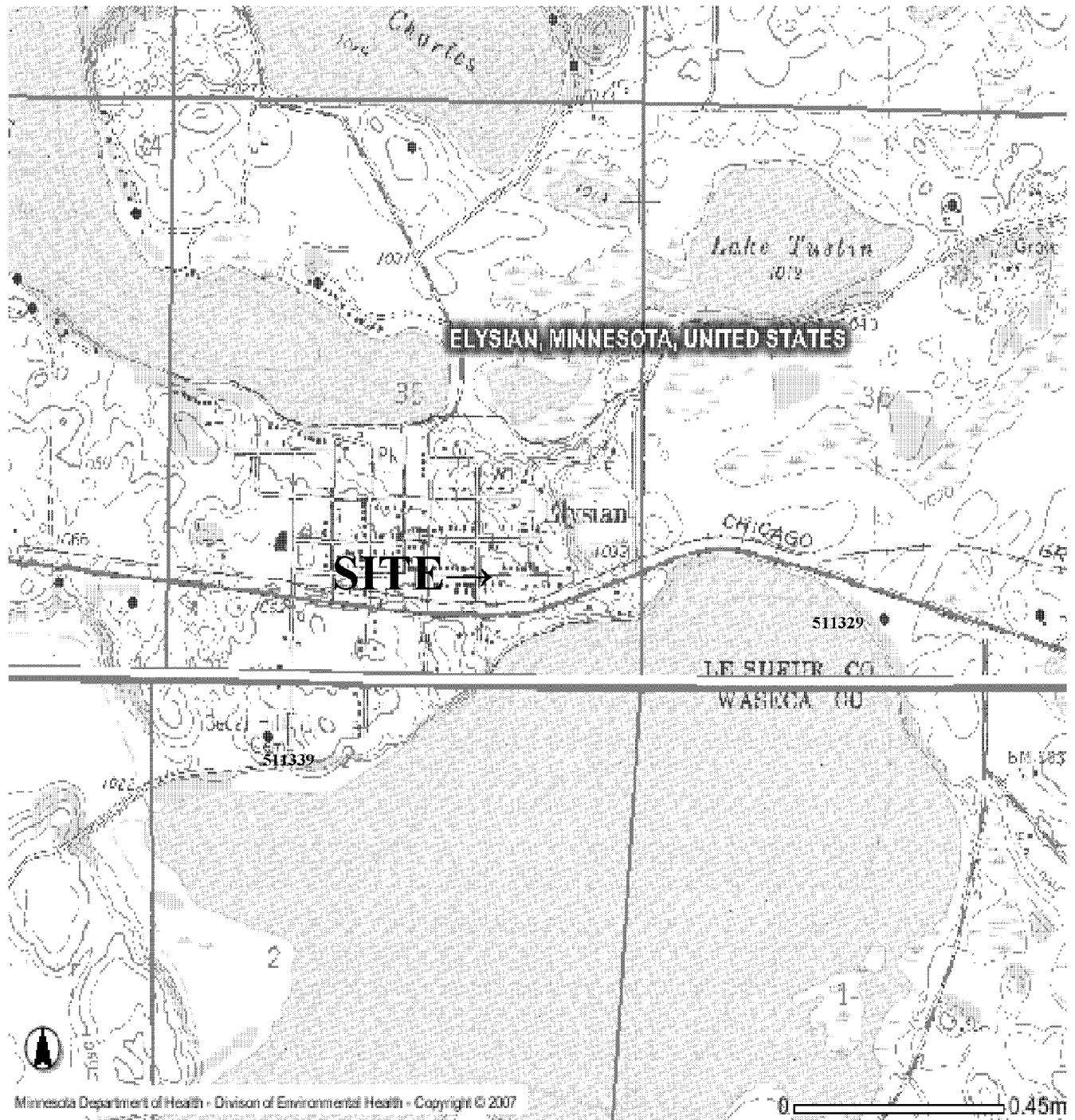
Nearest water well: 1/2 to 1 mile east

Nearest Wellhead Protection Area: More than 1 mile

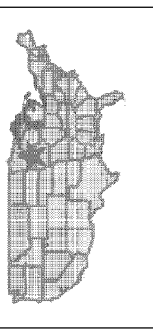
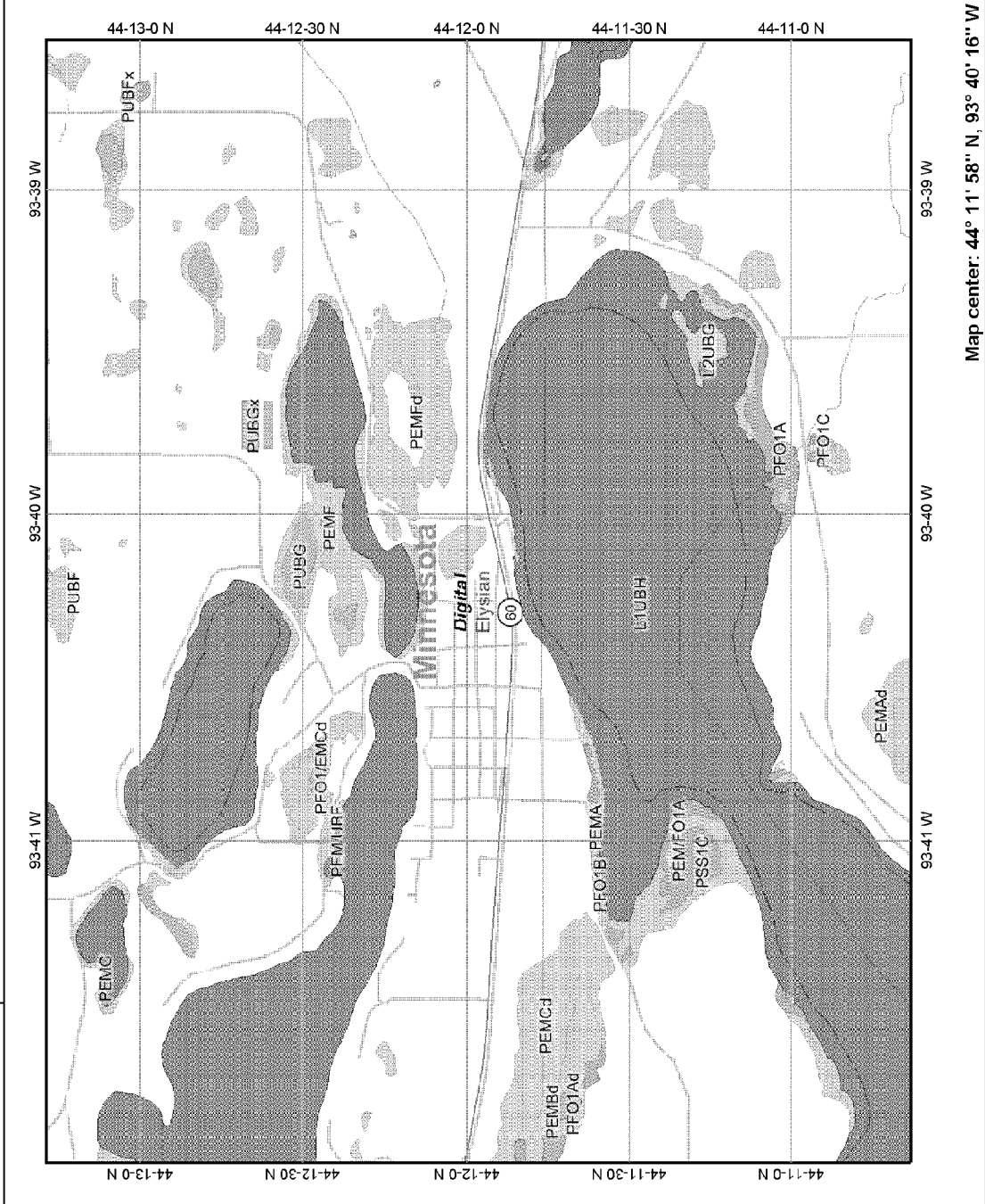
Nearest Source Water Assessment Area: Site is located in a SWAA

SITE RANKING: 16

ELYSIAN CWI Well Map



Elysian Wetland Map



Legend

- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:34,408

Map center: 44° 11' 58" N, 93° 40' 16" W

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Elysian What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
511329

County Le Sueur
 Quad Elysian
 Quad ID 54E

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 10/10/1991
 Update Date 07/23/2002
 Received Date

Well Name SCHULTZ, WEST		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 109 24 W 35 DCCBBC Elevation Method 1023 ft. 7.5 minute topographic map (+/- 5 feet)		100 ft.	100 ft.	05/16/1990
Drilling Method Non-specified Rotary				
Drilling Fluid Bertonite		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.		
Use Domestic				
Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.				
Casing Diameter		Weight	Hole Diameter	
4 in. to 95 ft.		11 lbs./ft.	6 in. to 95 ft.	
Open Hole from ft. to ft.				
Screen YES Make JOHNSON Type stainless steel				
Diameter		Slot/Gauze	Length	Set Between
3.5		10	7	95 ft. and 100 ft.
Geological Material Color Hardness From To				
SAND		GRAY	SOFT	0 45
CLAY SAND LAYERS		GRAY	SOFT	45 83
SAND + GRAVELERS		GRAY	SOFT	83 100
Static Water Level 4 ft. from Land surface Date Measured 05/16/1990				
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.				
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Cuttings from 0 to 95 ft.				
Nearest Known Source of Contamination 80 feet W direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name FLINT+WALLING Model number HP 0.5 Volts 220 Length of drop Pipe ft. Capacity 10 g.p.m. type Submersible Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
First Bedrock		42198		BEMIS, B.
Last Strat Sand & larger-gray		Lic. Or Reg. No.		Name of Driller
Aquifer Qual. Buried Artes Aquifer				
Depth to Bedrock ft.				
County Well Index Online Report		511329		Printed 10/3/2008 HE-01205-07

Minnesota Unique Well No.
511339

County Waseca
 Quad Elysian
 Quad ID 54E

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 01/28/1992
 Update Date 03/11/2005
 Received Date

Well Name JAMES, DON		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 108 24 W 2 BBADDA Elevation Method		120 ft.	120 ft.	08/30/1990		
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary				
Well Address RFD 1 ELYSIAN MN 56028 Geological Material CLAY Color Hardness From To CLAY YELLOW SOFT 0 20 CLAY BLUE SOFT 20 40 GRAVEL LAYER + CLAY BLUE MEDIUM 40 120		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Water	From -ft. to Ft.			
		Use Domestic				
		Casing Type Wood Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.				
		Casing Diameter		Weight	Hole Diameter	
		4 in. to 115 ft.		11 lbs./ft.	6 in. to 115 ft.	
					4 in. to 120 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type stainless steel				
		Diameter		Slot/Gauze	Length	Set Between
3.5		10	4	115 ft. and 120 ft.		
Static Water Level 55 ft. from Land surface Date Measured 08/30/1990						
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer MONITOR Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
NO REMARKS Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Other, note in remarks Date 06/24/2004 System UTM - Nad83, Zone15, Meters X: 445468 Y: 4893705		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Grout Material: Bentonite from to ft.				
		Nearest Known Source of Contamination 200 feet South East direction Septic tank/drain field type				
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
		Manufacturer's name ELINT+WALLING Model number HP 0.75 Volts 220				
		Length of drop Pipe ft. Capacity 10 g.p.m. type Submersible Material Stainless Steel				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Well Contractor Certification				
First Bedrock		Aquifer Quat. Buried Artes. Aquifer				
Last Strat Pebbly sand/silt/clay-gray		Depth to Bedrock ft				
County Well Index Online Report		511339		Printed 10/3/2008 HE-01205-07		

- **Goodview**

SITE SUMMARY

Site Name: Goodview

Fire Department: Goodview Fire Department
4135 W. 5th Street
Winona, MN 55987

Site Contact: Rick Bambenek, Fire Chief
507-312-0031

Training Location: Across from fire station, at 4140 W. 5th Street, Goodview

Training Location Coordinates (X,Y): 604478, 4879751.11

Type of foam used in training: AFFF: Ansul (historic use)
Class A: Ansul Silv-ex (historic use)
Other: HCT F-500 A/B foam sticks (current use)

Foam training frequency: Annually

Foam use per training event: 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: 20 gallons
Class A: 20 gallons
Other: Haven't used yet, switched to A/B sticks in March 2008

Nearest surface water: Mississippi River backwaters, approximately 1/4 mile north

Nearest wetland: Approximately 1/4 mile north

Karst Area: Site is located in an active karst area

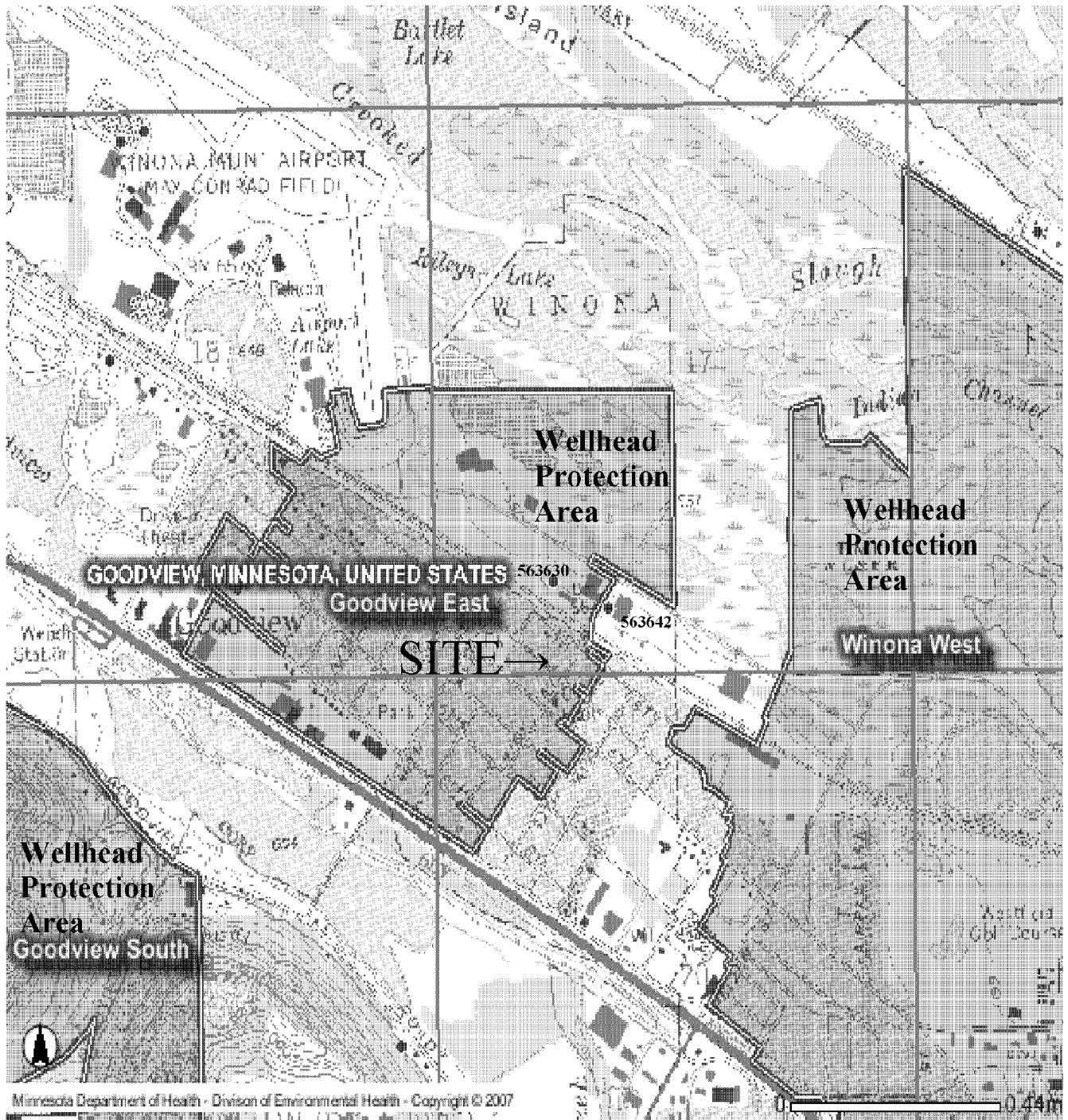
Nearest water well: Less than 1/4 mile north

Nearest Wellhead Protection Area: Site is located in a WPA

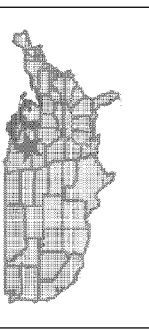
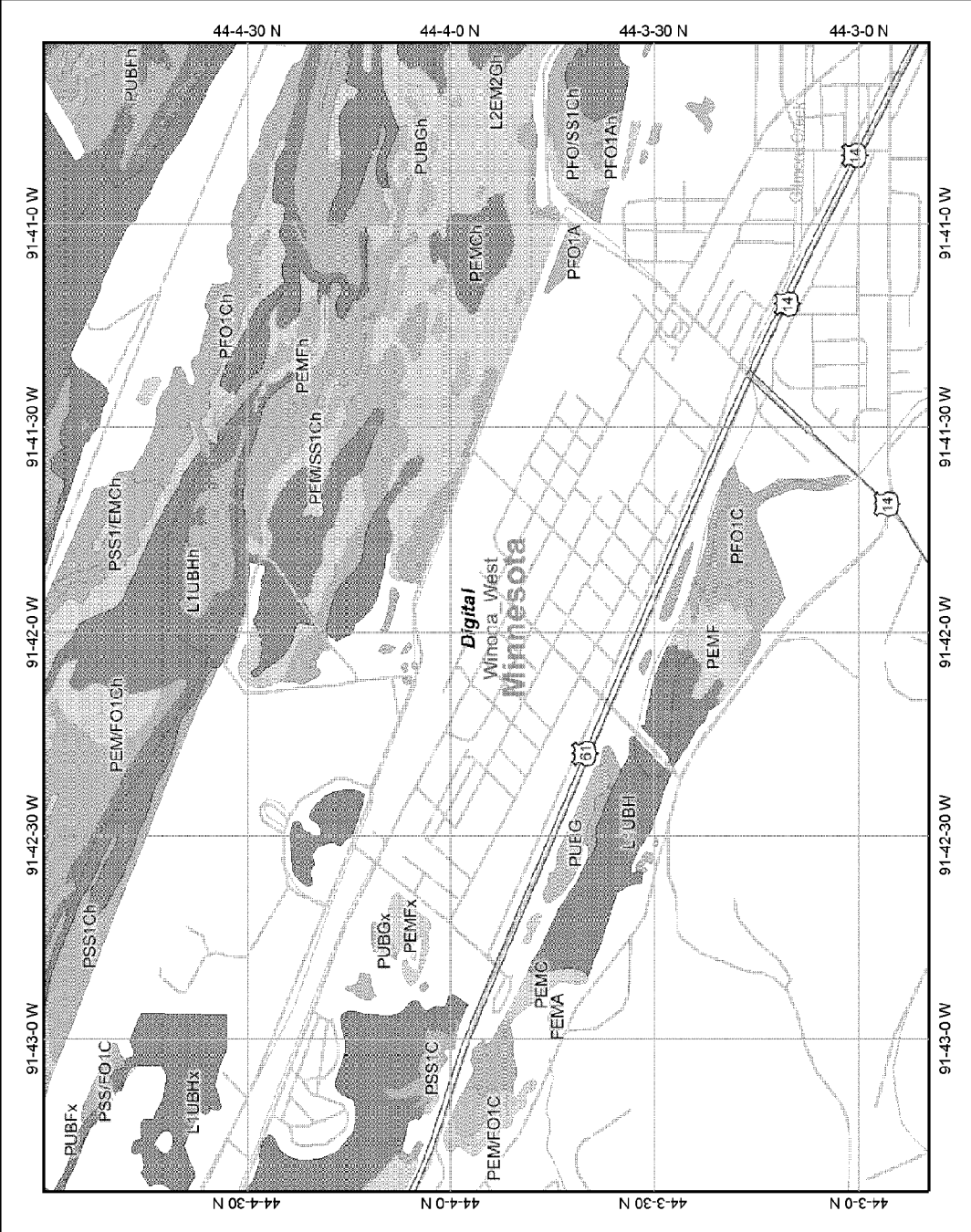
Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 21

GOODVIEW CWI Well Map



Goodview Wetland Map



Legend

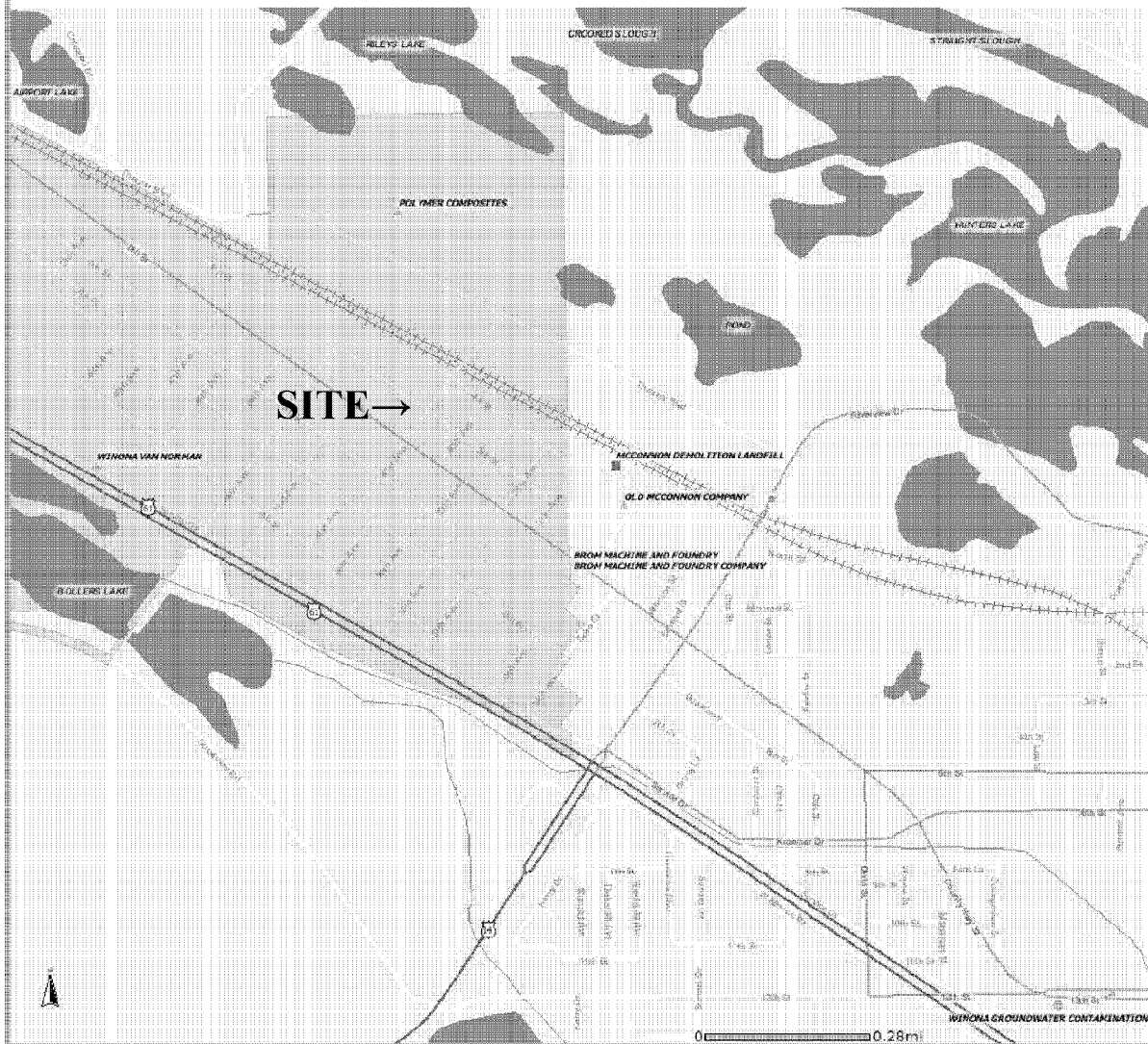
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:28,146

Map center: 44° 3' 55" N, 91° 41' 58" W

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Goodview What's In My Neighborhood Map



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Minnesota Pollution Control Agency

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
563630

County Winona
 Quad Winona West
 Quad ID 46C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 03/14/1997
 Update Date 11/30/2007
 Received Date

Well Name EMD ASSOCIATES INC.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 107 7 W 17 CDB 658 ft.		66 ft.	66 ft.	02/15/1996	
Elevation Method 7.5 minute topographic map (+/- 5 feet)		Drilling Method Cable Tool			
Well Address 4065 THEURER BL WINONA MN Geological Material SAND GRAVEL Color BROWN Hardness MEDIUM From 0 To 66		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Heat pump			
		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		6 in. to 52 ft.	19.45 lbs./ft.	10 in. to 8 ft.	
					6 in. to 66 ft.
		Open Hole from ft. to ft.			
		Screen YES Make WESCO Type stainless steel			
Diameter	Slot/Gauze	Length	Set Between		
6	15	14	52 ft. and 66 ft.		
Static Water Level 17 ft. from Land surface Date Measured 02/13/1996					
PUMPING LEVEL (below land surface) 21 ft. after 1 hrs. pumping 110 g.p.m.					
Well Head Completion Pitless adapter manufacturer WHITEWATER Model PAT 500 <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Method Digitization (Screen) - Map (1:24,000)		Nearest Known Source of Contamination 60 feet North West direction Tanks type			
Unique Number Verification N/A Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
System UTM - Nad83, Zone15, Meters X: 604491 Y: 4879996		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 02/13/1996 Manufacturer's name GOULDS Model number 90L07 HP 7.5 Volts 460 Length of drop Pipe 42 ft. Capacity 110 g.p.m. Type Submersible Material			
First Bedrock Last Strat Sand & larger Aquifer Depth to Bedrock ft.		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Well Contractor Certification Hartert Well 79609 HARTERT E. License Business Name Lic. Or Reg. No. Name of Driller			
County Well Index Online Report		563630		Printed 9/24/2008 HE-01205-07	

Minnesota Unique Well No.
563642

County Winona
 Quad Winona West
 Quad ID 46C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 03/14/1997
 Update Date 11/30/2007
 Received Date

Well Name EMD ASSOCIATES INC.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 107 7 W 17 CDC 657 ft.		43 ft.	43 ft.	11/12/1996	
Elevation Method 7.5 minute topographic map (+/- 5 feet)		Drilling Method Cable Tool			
Well Address 4065 THEURER BL WINONA MN Geological Material SAND GRAVEL Color BROWN Hardness SOFT From 0 To 43		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter		Weight	Hole Diameter
		4 in. to 34 ft.		11 lbs./ft.	8 in. to 8 ft.
					4 in. to 43 ft.
		Open Hole from ft. to ft.			
		Screen YES Make WESCO Type stainless steel			
		Diameter		Slot/Gauze	Length
4		15	9	34 ft. and 43 ft.	
Static Water Level 15 ft. from Land surface Date Measured 11/12/1996					
PUMPING LEVEL (below land surface) 18 ft. after 2 hrs. pumping 25 g.p.m.					
Well Head Completion Pitless adapter manufacturer MONITOR Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Method Digitization (Screen) - Map (1:24,000)		Nearest Known Source of Contamination			
Unique Number Verification N/A Date N/A		139 feet E direction Septic tank/drain field type			
System UTM - Nad83, Zone15, Meters X: 604677 Y: 4879919		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
		Manufacturer's name Model number HP Volts			
		Length of drop Pipe ft. Capacity g.p.m. Type Submersible Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock		Well Contractor Certification			
Last Strat Sand & larger-brown		Hartert Well 79609 HARTERT E.			
Aquifer		License Business Name Lic. Or Reg. No. Name of Driller			
Depth to Bedrock ft.					
County Well Index Online Report		563642		Printed 9/24/2008 HE-01205-07	

- Kenyon

SITE SUMMARY

Site Name: Kenyon

Fire Department: Kenyon Fire Department
PO Box 6
Kenyon, MN 55946

Site Contact: Doug Noah, Fire Chief
507-838-9657

Training Location: Fire station, 714 2nd Street

Training Location Coordinates (X,Y): 501206.91, 4902119

Type of foam used in training: AFFF: varies, mostly 3M-brand foam

Foam training frequency: Bi-annually

Foam use per training event: Less than 5 gallons; only run foam until it comes out nozzle to show system hook-up, then train with water.

Spent foam destination: Ground

Annual foam use: AFFF: 20 gallons
Class A: less than 5 gallons

Nearest surface water: Tributary to the North Fork of the Zumbro River, approximately 1/4 mile to the east

Nearest wetland: 1/4 to 1/2 mile north

Karst Area: Site appears to be located in an active karst area

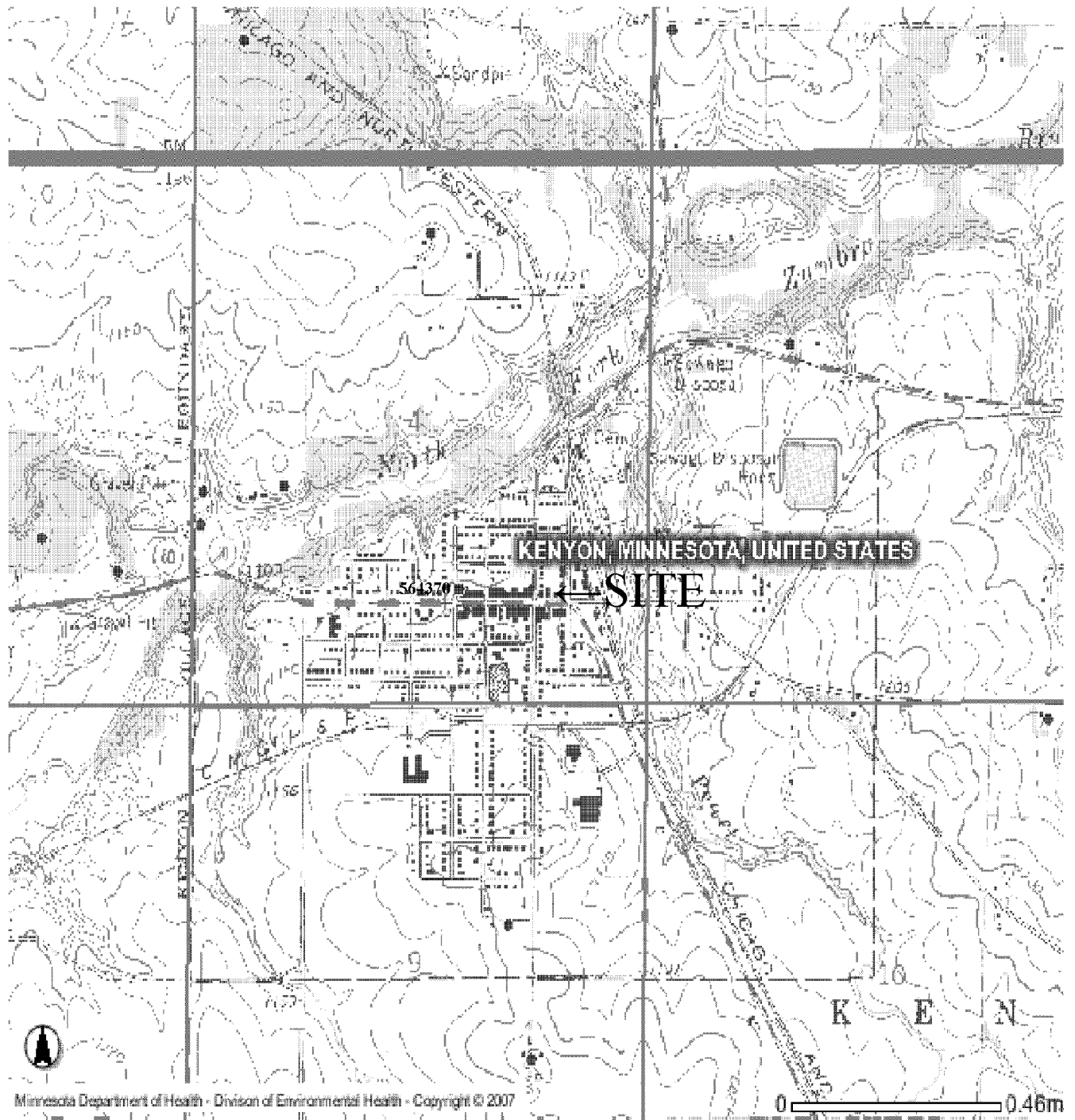
Nearest water well: Less than 1/4 mile west

Nearest Wellhead Protection Area: More than 1 mile

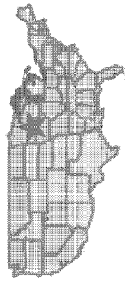
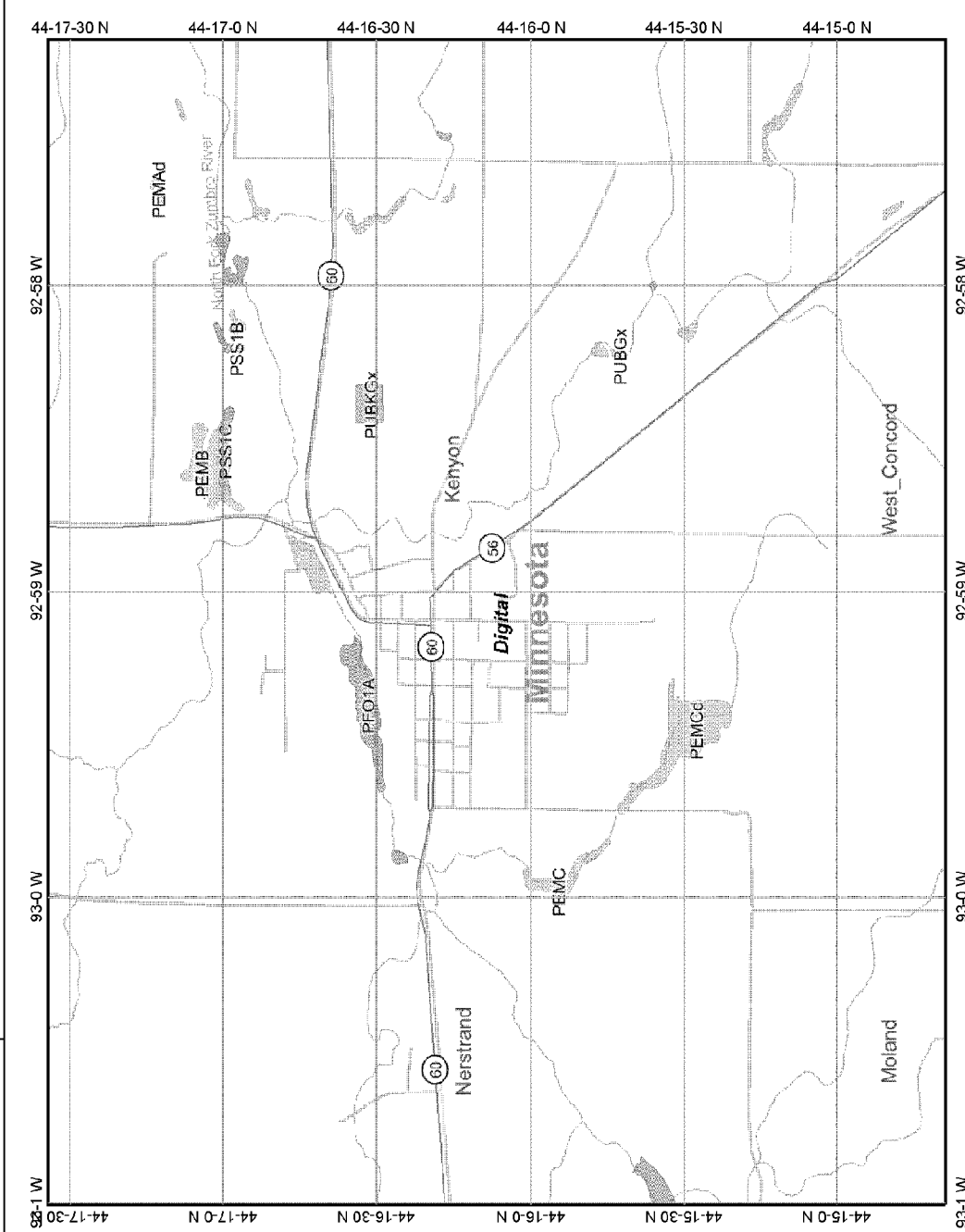
Nearest Source Water Assessment Area: Site is located in a SWAA

SITE RANKING: 27

KENYON CWI Well Map

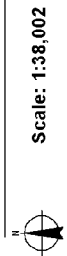


Kenyon Wetland Map



Legend

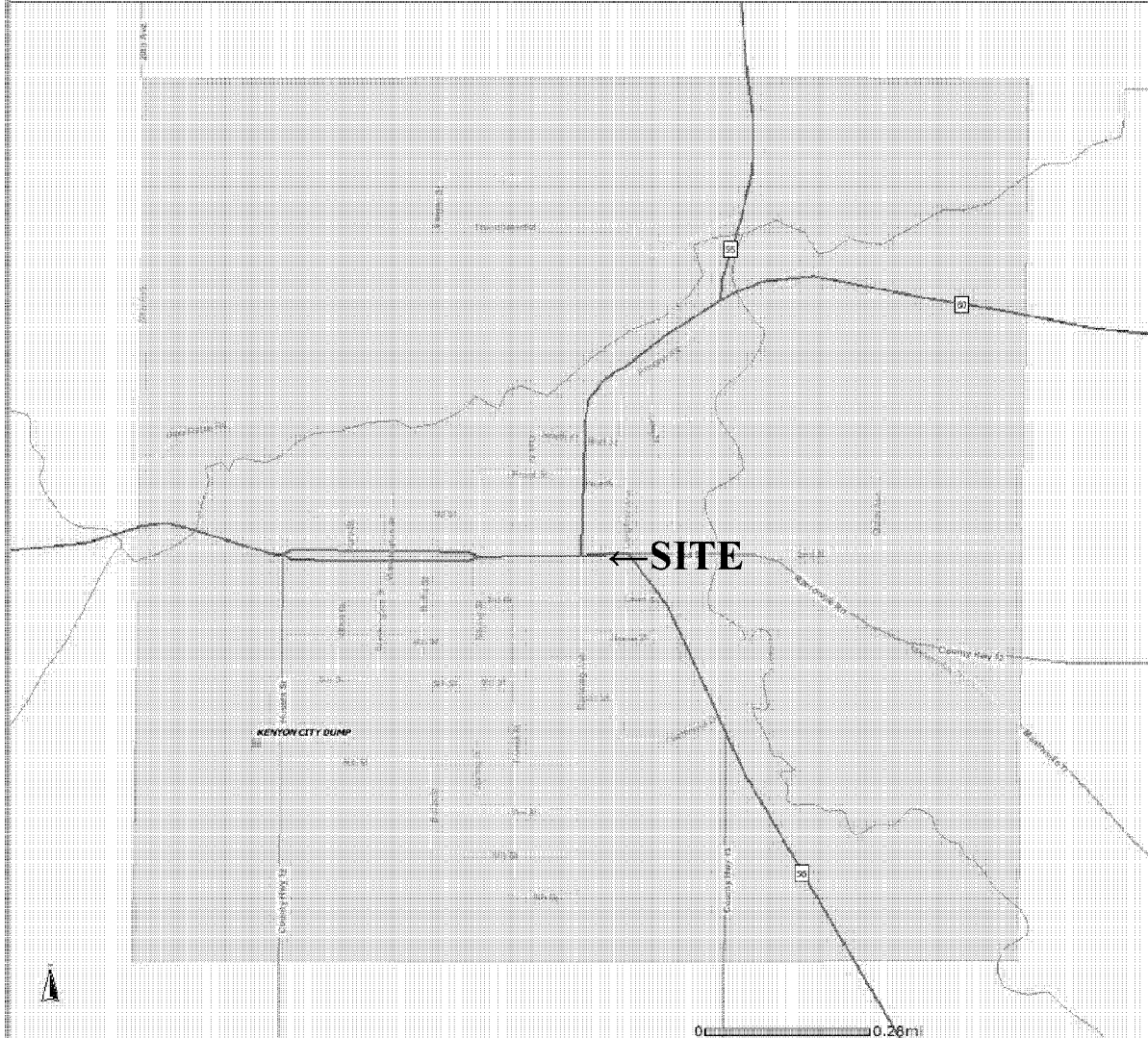
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Map center: 44° 16' 7" N, 92° 59' 6" W

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Kenyon What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
564370

County Goodhue
 Quad Kenyon
 Quad ID 70C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 11/21/1995
 Update Date 12/12/1995
 Received Date

Well Name SECURITY STATE BANK		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 109 18 W 4 DCBACA Elevation Method 1154 ft. 7.5 minute topographic map (+/- 5 feet)		17 ft.	17 ft.	05/01/1995		
Drilling Method Cable Tool						
Well Address 602 2ND ST KENYON MN Geological Material SHALE Color GRAY Hardness HARD From 0 To 17		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Use Elevator			From -ft. to Ft.	
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Above/Below 0 ft.	
		Casing Diameter		Weight	Hole Diameter	
		20 in. to 8 ft.		lbs./ft.	20 in. to 17 ft.	
		16 in. to 17 ft.		lbs./ft.		
		Open Hole from ft. to ft.				
		Screen Make Type				
		Diameter		Slot/Gauze	Length	Set Between
		Static Water Level ft. from Date Measured				
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Neat Cement from 0 to 17 ft. 14 bags				
Unique Number Verification Address Date N/A		Nearest Known Source of Contamination _ft. _direction _type				
System UTM - Nad83, Zone15, Meters X: 500912 Y: 4902125		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
		Manufacturer's name Model number __ HP 0 Volts				
		Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock		Well Contractor Certification				
Last Strat Clay-gray		License Business Name				
Aquifer		LIC002				
Depth to Bedrock ft.		STANGRET M.				
		Lic. Or Reg. No.				
		Name of Driller				
County Well Index Online Report		564370		Printed 9/24/2008 HE-01205-07		

- **Lake Johanna**

SITE SUMMARY

Site Name: Lake Johanna

Fire Department: Lake Johanna Fire Department
5545 Lexington Ave. N.
Shoreview, MN 55126

Site Contact: Tim Boehlke, Fire Chief
651-481-7024

Training Location: Fire Station 3, 5545 Lexington Ave. N., Shoreview

Training Location Coordinates (X,Y): 488316.27, 4995010.77

Type of foam used in training: AFFF: Angus 3-6%
Class A: Ansul Silv-ex

Foam training frequency: Annually

Foam use per training event: Approximately 40 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: 20 gallons
Class A: 100 gallons

Nearest surface water: Turtle Lake less than 1/4 mile southeast

Nearest wetland: Less than 1/4 mile south and east

Karst Area: Site is located in a covered karst area

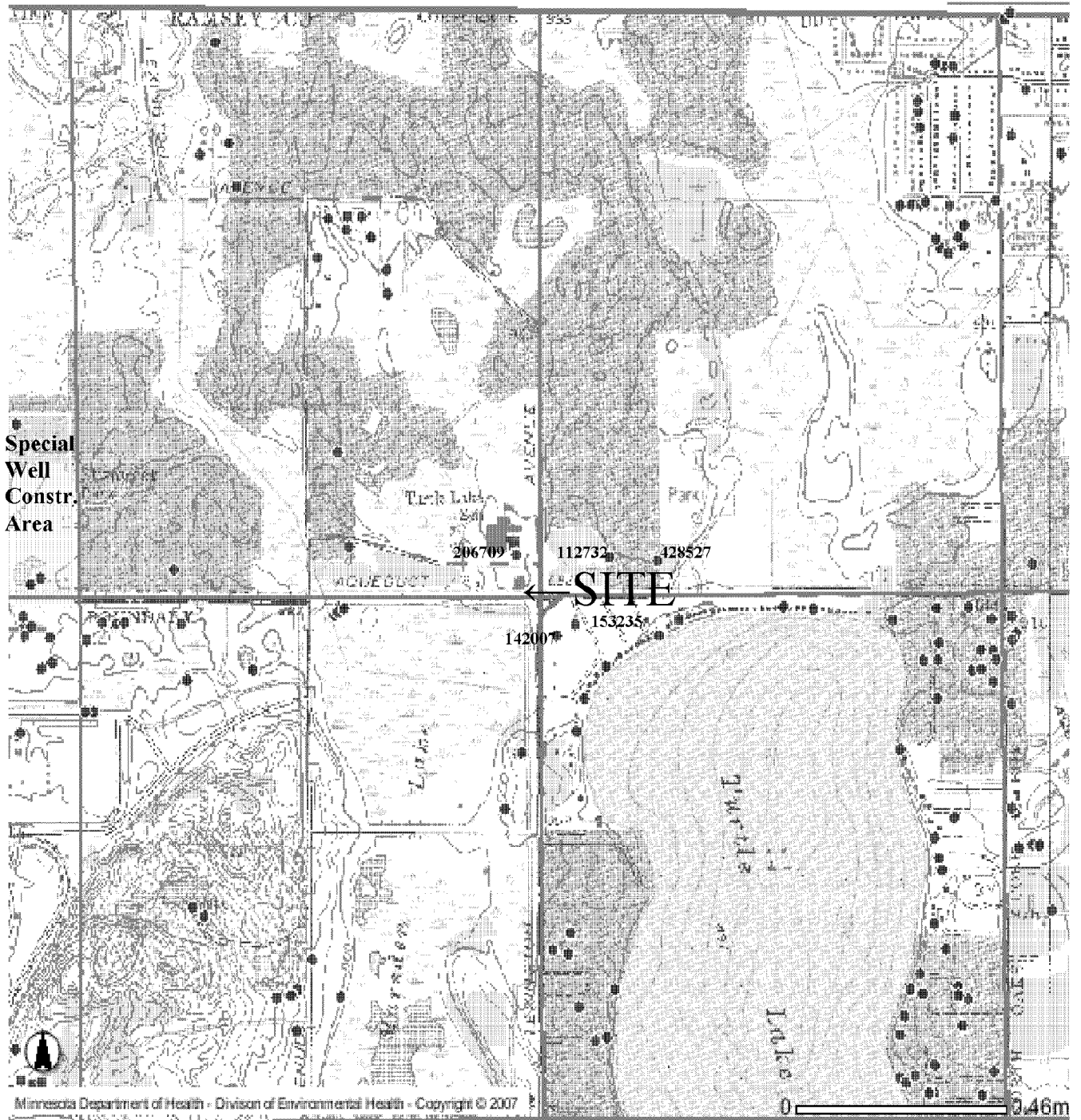
Nearest water well: Less than 1/8 mile north

Nearest Wellhead Protection Area: More than 1 mile

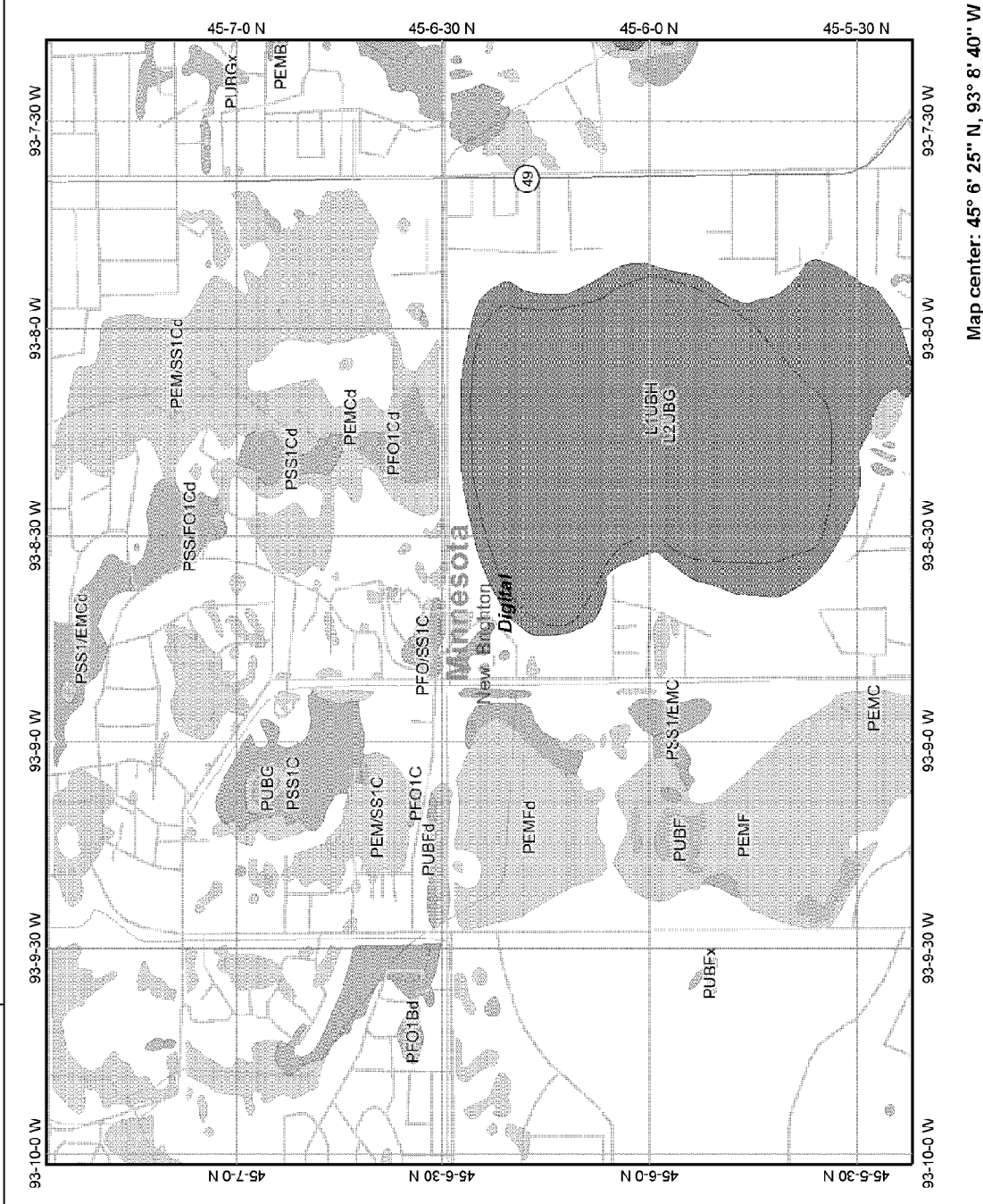
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 15

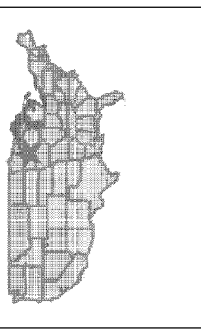
LAKE JOHANNA CWI Well Map



Lake Johanna Wetland Map



Map center: 45° 6' 25" N, 93° 8' 40" W



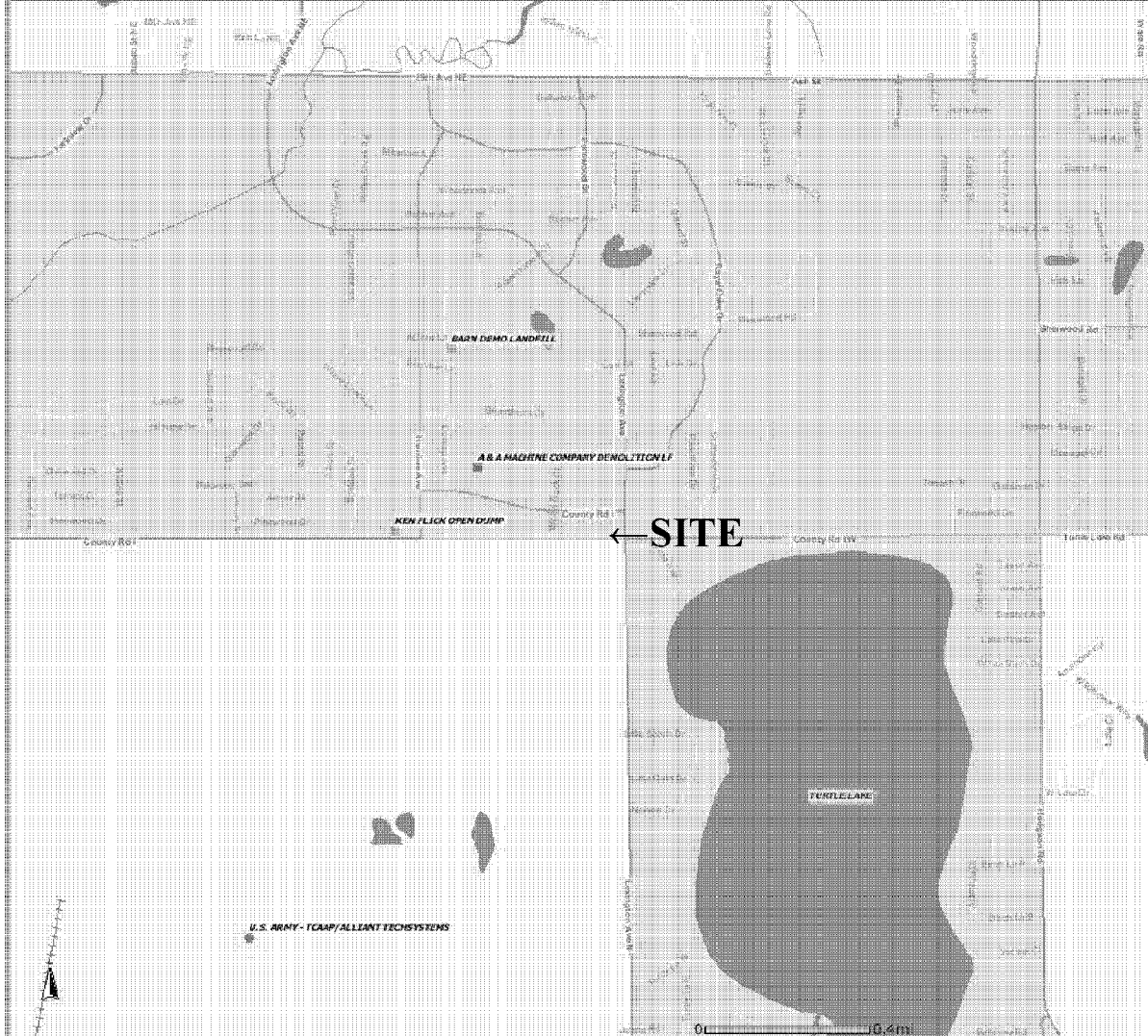
Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:27,180

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Lake Johanna What's In My Neighborhood Map



← SITE

Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 Minnesota Pollution Control Agency

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
112732

County Ramsey
 Quad New Brighton
 Quad ID 119C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/14/1991
 Update Date 08/23/1991
 Received Date

Well Name MICHAEL P. QUISBERG Township Range Dir Section Subsections Elevation 897 ft. 30 23 W 2 CCDBCD Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 90 ft. Depth Completed 90 ft. Date Well Completed 12/08/1975 Drilling Method --																				
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td></td> <td></td> <td>0</td> <td>20</td> </tr> <tr> <td>CLAY</td> <td></td> <td></td> <td>20</td> <td>70</td> </tr> <tr> <td>WATER SAND</td> <td></td> <td></td> <td>70</td> <td>90</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND			0	20	CLAY			20	70	WATER SAND			70	90	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.
	Geological Material	Color	Hardness	From	To																
	SAND			0	20																
	CLAY			20	70																
	WATER SAND			70	90																
	Use Domestic	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.																			
	<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 88 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table>	Casing Diameter	Weight	Hole Diameter	4 in. to 88 ft.	lbs./ft.		Open Hole from ft. to ft.													
	Casing Diameter	Weight	Hole Diameter																		
	4 in. to 88 ft.	lbs./ft.																			
	Screen YES Make JOHNSON Type other	<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>18</td> <td>6</td> <td>84 ft. and 90 ft.</td> </tr> </tbody> </table>	Diameter	Slot/Gauze	Length	Set Between	2	18	6	84 ft. and 90 ft.											
Diameter	Slot/Gauze	Length	Set Between																		
2	18	6	84 ft. and 90 ft.																		
Static Water Level 20 ft. from Land surface Date Measured 12/08/1975 PUMPING LEVEL (below land surface) 60 ft. after hrs. pumping 15 g.p.m.	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																				
NO REMARKS	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 488630 Y: 4995083	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
First Bedrock Last Strat Sand Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name STA-RITE Model number GP1002 HP 0.75 Volts 220 Length of drop Pipe 60 ft. Capacity 15 g.p.m. Type Submersible Material																				
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification License Business Name Lic. Or Reg. No. Name of Driller																				
112732	Printed 9/10/2008 HE-01205-07																				

Minnesota Unique Well No.

142007

County Ramsey
 Quad New Brighton
 Quad ID 119C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/14/1991
 Update Date 08/23/1991
 Received Date

Well Name JAMES KAVANAUGH Township Range Dir Section Subsections Elevation 895 ft. 30 23 W 11 BBBCAB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 87 ft. Depth Completed 87 ft. Date Well Completed 12/22/1977 Drilling Method --																																							
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SAND FILL</td> <td>BROWN</td> <td></td> <td>0</td> <td>3</td> </tr> <tr> <td>PEAT</td> <td>BLACK</td> <td></td> <td>3</td> <td>20</td> </tr> <tr> <td>CLAY</td> <td>GRAY</td> <td></td> <td>20</td> <td>78</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td></td> <td>78</td> <td>87</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND FILL	BROWN		0	3	PEAT	BLACK		3	20	CLAY	GRAY		20	78	SAND	BROWN		78	87	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft. <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 84 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type stainless steel <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>3.5</td> <td>12</td> <td>3</td> <td>84 ft. and 87 ft.</td> </tr> </tbody> </table> Static Water Level 26 ft. from Land surface Date Measured 12/22/1977 PUMPING LEVEL (below land surface) 26 ft. after hrs. pumping 30 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 84 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	3.5	12	3	84 ft. and 87 ft.
	Geological Material	Color	Hardness	From	To																																			
	SAND FILL	BROWN		0	3																																			
	PEAT	BLACK		3	20																																			
	CLAY	GRAY		20	78																																			
	SAND	BROWN		78	87																																			
	Casing Diameter	Weight	Hole Diameter																																					
	4 in. to 84 ft.	lbs./ft.																																						
	Diameter	Slot/Gauze	Length	Set Between																																				
	3.5	12	3	84 ft. and 87 ft.																																				
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Address Date N/A System UTM - Nad83, Zone15, Meters X: 488448 Y: 4594842	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination 75 feet W direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name TAIT Model number HP 1 Volts 220 Length of drop Pipe 36 ft. Capacity 10 g.p.m. Type Submersible Material																																							
First Bedrock Last Strat Sand-brown Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification License Business Name Lic. Or Reg. No. Name of Driller																																							
County Well Index Online Report	142007 Printed 9/10/2008 HE-01205-07																																							

Minnesota Unique Well No.
153235

County Ramsey
 Quad New Brighton
 Quad ID 119C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/14/1991
 Update Date 08/23/1991
 Received Date

Well Name THOMAS ONEIL		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 30 23 W 11 BBBACC Elevation Method 895 ft. 7.5 minute topographic map (+/- 5 feet)		106 ft.	106 ft.	09/05/1978
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Domestic		
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		4 in. to 101 ft.	lbs./ft.	
		Open Hole from ft. to ft.		
		Screen YES Make JOHNSON Type		
		Diameter	Slot/Gauze	Length Set Between
		2	10	5 101 ft. and 106 ft.
Geological Material	Color	Hardness	From	To
CLAY			0	83
GRAVEL			83	94
WATER SAND			94	106
		Static Water Level 21 ft. from Land surface Date Measured 09/05/1978		
		PUMPING LEVEL (below land surface) 80 ft. after hrs. pumping 20 g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination 55 feet N direction type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Unique Number Verification Address Date N/A		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
System UTM - Nad83, Zone15, Meters X: 488512 Y: 4594877		Manufacturer's name GOULD Model number 10EX07412 HP 0.75 Volts 230 Length of drop Pipe 54 ft. Capacity 12 g.p.m. Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
First Bedrock		License Business Name		
Last Strat Sand		Lic. Or Reg. No.		
Aquifer Quat. Buried Artes. Aquifer		Name of Driller		
Depth to Bedrock ft				
County Well Index Online Report		153235		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.
206709

County Ramsey
 Quad New Brighton
 Quad ID 119C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/14/1991
 Update Date 05/06/2005
 Received Date

Well Name TURTLE LAKE ELM. SCH.		Well Depth 429 ft.	Depth Completed 429 ft.	Date Well Completed 12/02/1958
Township Range Dir Section Subsections Elevation 30 23 W 3 DDDACB Elevation Method		905 ft. 7.5 minute topographic map (+/- 5 feet)		
Well Address NEW BRIGHTON MN		Drilling Method Cable Tool		
Geological Material		Drilling Fluid --		
Color		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Hardness		From Ft. to Ft.		
From To		Use Abandoned Status Sealed		
0 14		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>		
14 21		No Above/Below ft.		
21 53		Casing Diameter		
53 71		Weight		
71 83		Hole Diameter		
83 107		10 in. to 167 ft. lbs./ft. 6 in. to 429 ft.		
107 126		6 in. to 301 ft. lbs./ft.		
126 127		Open Hole from 301 ft. to 429 ft.		
127 131		Screen NO Make Type		
131 166		Diameter Slot/Gauze Length Set Between		
166 228		Static Water Level		
228 231		25 ft. from land surface Date Measured 12/02/1958		
231 232		PUMPING LEVEL (below land surface)		
232 255		30 ft. after hrs. pumping 130 g.p.m.		
255 290		Well Head Completion		
290 301		Pitless adapter manufacturer Model		
301 343		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
343 364		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
364 425		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
425 429		Grout Material: Neat Cement from to ft.		
REMARKS		Nearest Known Source of Contamination		
GAMMA LOGGED 8-24-2001.		_ft. _direction _type		
LOGGED INTERVAL FROM 0-231 FT. IS QUESTIONABLE HAVE TO RELY ON DRILL LOG.		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
WELL SEALED 08-28-2001 BY 71015		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
ORIGINAL USE PS - PUBLIC SUPPLY/NON-COMMUNITY		Manufacturer's name Model number HP Volts		
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000)		Length of drop Pipe ft. Capacity g.p.m. Type Material		
Unique Number Verification Information from owner Date 08/24/2001		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
System UTM - Nad83, Zone15, Meters X: 488307 Y: 4995089		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Borehole Geophysics Yes		Well Contractor Certification		
First Bedrock Prairie Du Chien Group		Renner E.H. Well 71015 RENNER E.		
Last Strat Franconia		Lic. Or Reg. No. Name of Driller		
Aquifer St. Lawrence-Franconia		206709 Printed 9/10/2008		
Depth to Bedrock 131 ft.		HE-01205-07		
County Well Index Online Report				

Minnesota Unique Well No.
428527

County Ramsey
 Quad New Brighton
 Quad ID 119C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 05/20/1991
 Update Date 08/23/1991
 Received Date

Well Name BLANCHETTE, ROBERT				Well Depth 88 ft.		Depth Completed 88 ft.		Date Well Completed 05/06/1987																	
Township Range Dir Section Subsections Elevation 30 23 W 2 CDCCBB Elevation Method 900 ft. 7.5 minute topographic map (+/- 5 feet)				Drilling Method --																					
Geological Material CLAY GRAVEL WATERSAND + GRAVEL <table border="1"> <thead> <tr> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>0</td> <td>65</td> </tr> <tr> <td></td> <td></td> <td>65</td> <td>80</td> </tr> <tr> <td></td> <td></td> <td>80</td> <td>88</td> </tr> </tbody> </table>				Color	Hardness	From	To			0	65			65	80			80	88	Drilling Fluid --		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.			
				Color	Hardness	From	To																		
						0	65																		
						65	80																		
						80	88																		
				Use Domestic																					
				Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.																					
				Casing Diameter		Weight		Hole Diameter																	
				4 in. to 84 ft.		lbs./ft.																			
				Open Hole from ft. to ft.																					
Screen YES Make JOHNSON Type stainless steel																									
Diameter		Slot/Gauze		Length		Set Between																			
2.5		18		6		82 ft. and 88 ft.																			
Static Water Level 25 ft. from Land surface Date Measured 05/06/1987																									
PUMPING LEVEL (below land surface) 50 ft. after hrs. pumping 20 g.p.m.																									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																									
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 488797 Y: 4995071				Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																					
				Nearest Known Source of Contamination 150 feet S direction type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																					
				Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name RED JACKET Model number 50CN1 HP 0.5 Volts 110 Length of drop Pipe 50 ft. Capacity 15 g.p.m. Type Submersible Material																					
				Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																					
				Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																					
First Bedrock Last Strat Sand				Well Contractor Certification Mccullough & Sons License Business Name				82054 Lic. Or Reg. No. Name of Driller																	
County Well Index Online Report				428527				Printed 9/10/2008 HE-01205-07																	

- **Lanesboro**

SITE SUMMARY

Site Name: Lanesboro

Fire Department: Lanesboro Fire Department
PO Box 210
Lanesboro, MN 55949

Site Contact: Asst. Fire Chief Andrew Drake
507-467-2225

Training Location: City ball field parking lot, County Road 8

Training Location Coordinates (X,Y): 582187.04, 4841518.44

Type of foam used in training: AFFF: Aqua Eco stick
AR-AFFF: Historic use, unsure of brand
Class A: Aqua Eco stick

Foam training frequency: Bi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: Less than 5 gallons
Class A: Less than 5 gallons

Nearest surface water: South Branch of the Root River located less than 1/8 mile east

Nearest wetland: Less than 1/8 mile north and east

Karst Area: Site is located in an active karst area.

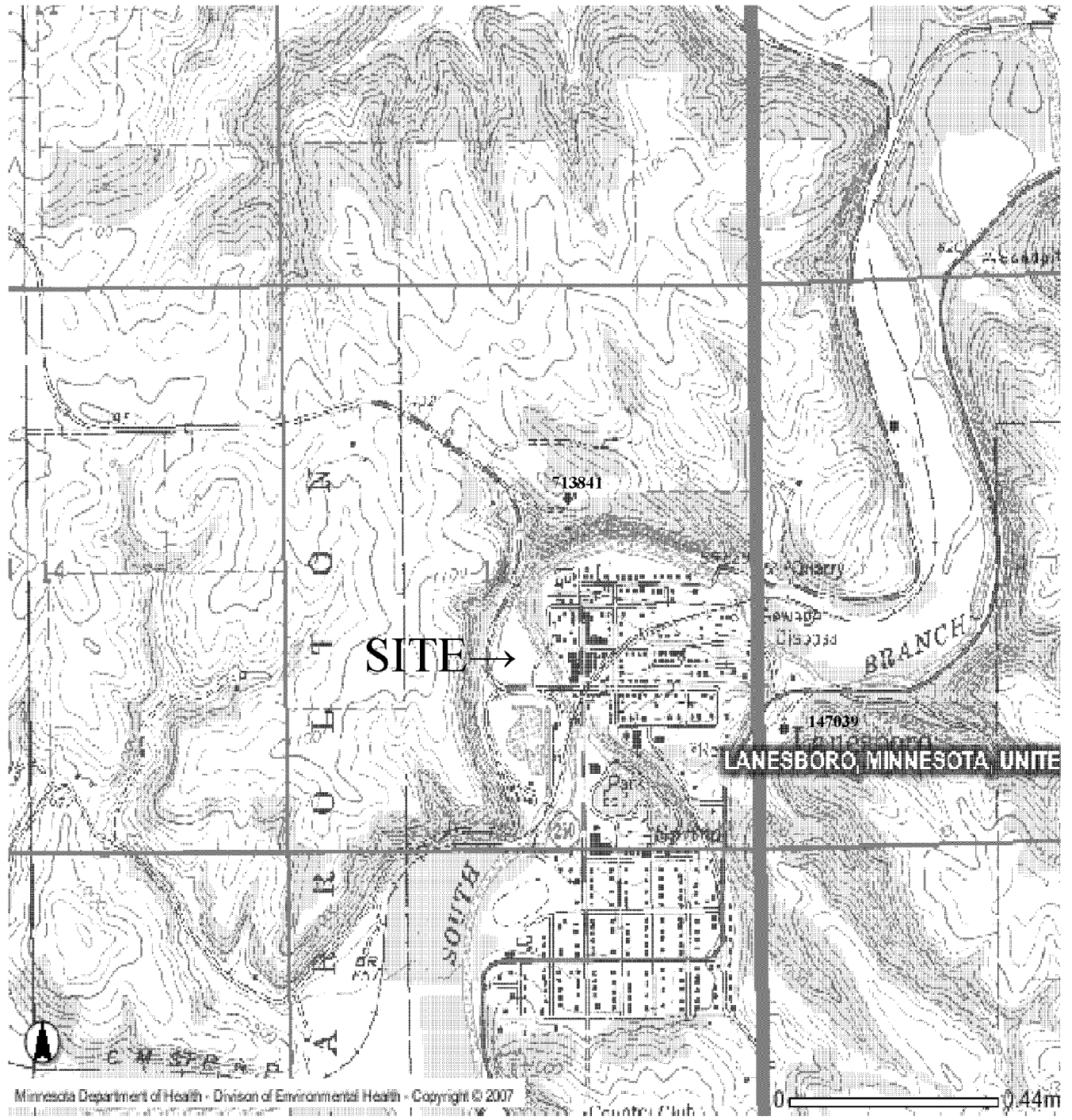
Nearest water well: 1/4 to 1/3 mile north-northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

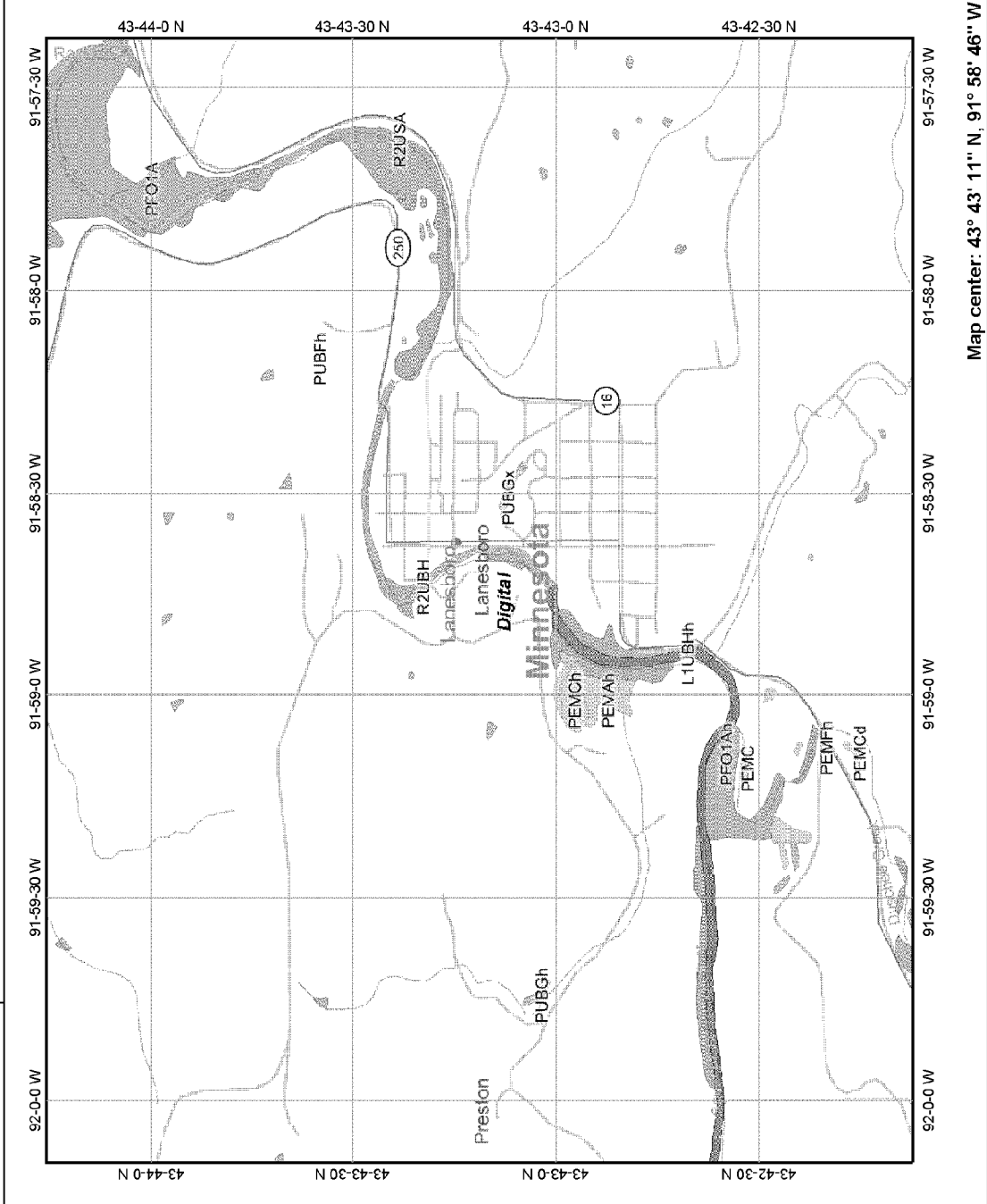
SITE RANKING: 18

LANESBORO CWI Well Map

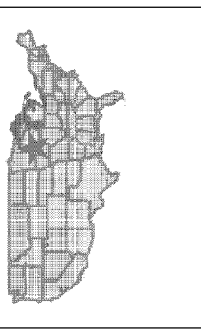


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Lanesboro Wetland Map



Map center: 43° 43' 11" N, 91° 58' 46" W



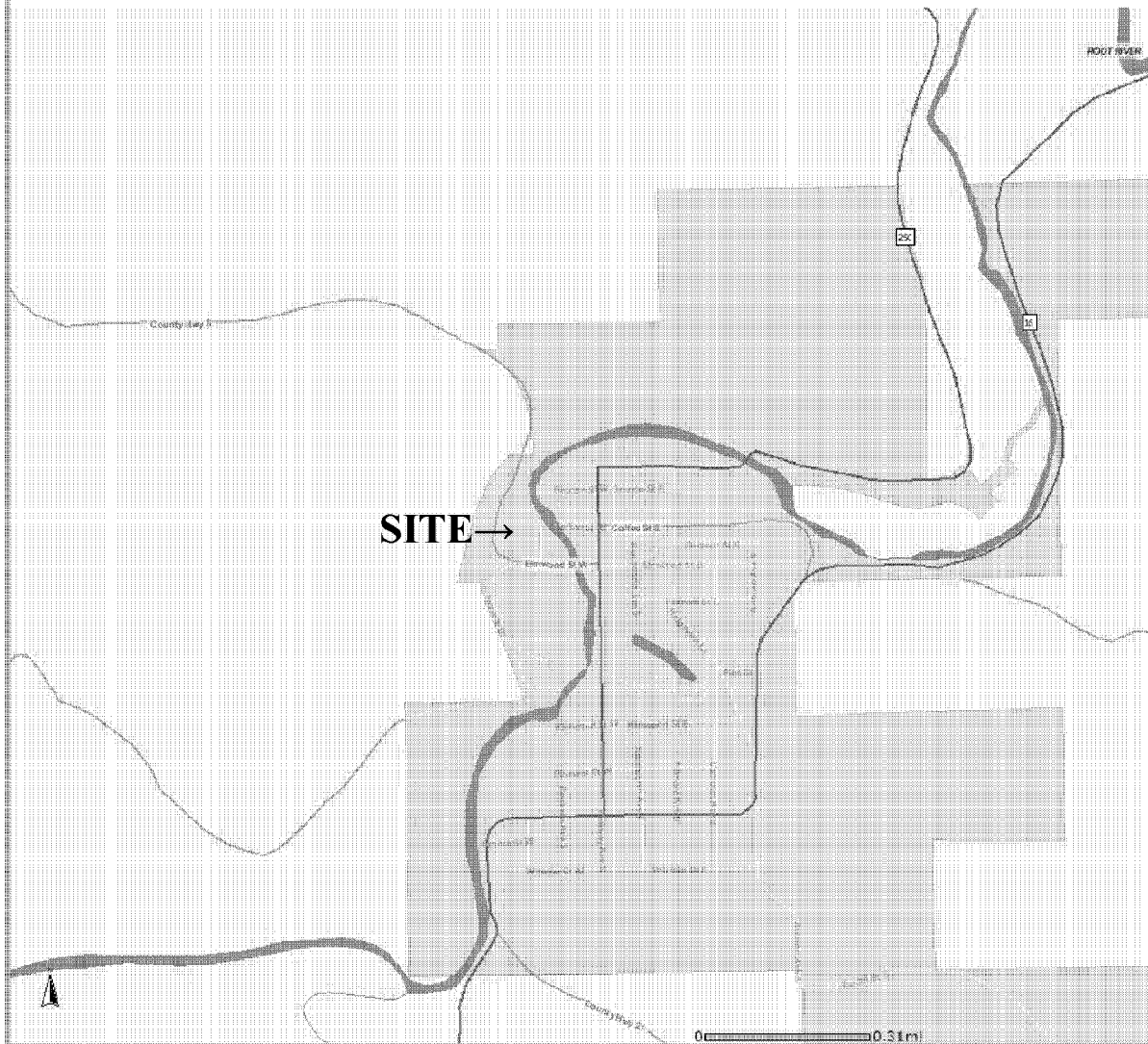
Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:27,720

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Lanesboro What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
147039

County Fillmore
 Quad Lanesboro
 Quad ID 4B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 12/20/1991
 Update Date 11/21/1994
 Received Date

Well Name FORSTRUM, ELMER		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 103 9 W 18 CCBEDA Elevation Method 831 ft. 7.5 minute topographic map (+/- 5 feet)		105 ft.	105 ft.	04/21/1978		
Drilling Method Non-specified Rotary						
Well Address LANESBORO MN Geological Material DRIFT SANDSTONE Color VARIED RED Hardness SOFT SOFT From 0 42 To 42 105		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Use Domestic		From -ft. to Ft.		
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Above/Below 1 ft.	
		Casing Diameter		Weight	Hole Diameter	
		8 in. to 44 ft.		lbs./ft.		
		4 in. to 59 ft.		lbs./ft.		
		Open Hole from 59 ft. to 105 ft.				
		Screen NO Make Type				
		Diameter		Slot/Gauze	Length	Set Between
		Static Water Level 24 ft. from land surface Date Measured 04/21/1979				
PUMPING LEVEL (below land surface) 24 ft. after hrs. pumping 20 g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Neat Cement from 0 to 59 ft. 2 yds.				
Unique Number Verification Information from owner Date N/A		Nearest Known Source of Contamination 75 feet direction Septic tank/drain field type				
System UTM - Nad83, Zone15, Meters X: 583085 Y: 4841269		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock Jordan Last Strat Jordan		Well Contractor Certification Rowland Well Co. 23124 ROWLAND N. License Business Name Lic. Or Reg. No. Name of Driller				
County Well Index Online Report		147039		Printed 9/24/2008 HE-01205-07		

Minnesota Unique Well No.
713841

County Fillmore
 Quad Lanesboro
 Quad ID 4B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 0
 Update Date 06/05/2008
 Received Date 11/09/2004

Well Name AMDAHL, ORVIL		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 103 10 W 13 ACCAAB Elevation Method 1095 ft. 7.5 minute topographic map (+/- 5 feet)		580 ft.	580 ft.	09/14/2004	
Drilling Method Non-specified Rotary					
Well Address RR 2 BOX 133 LANESBORO MN 55949		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Foam	From Ft. to Ft.		
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
Geological Material		Casing Diameter	Weight	Hole Diameter	
		8 in. to 50 ft.	lbs./ft.	12 in. to 50 ft.	
		4 in. to 512 ft.	lbs./ft.	8 in. to 512 ft.	
		Open Hole from 512 ft. to 580 ft.			
Color Hardness From To		Screen NO	Make	Type	
DRIFT BROWN SOFT 0 50	LIMESTONE TAN MEDIUM 50 72				
SANDSTONE BROWN SOFT 72 182	LIMESTONE BLUE MEDIUM 182 252	Diameter	Slot/Gauze	Length	
LIMESTONE TAN MEDIUM 252 320	SANDSTONE BROWN SOFT 320 420			Set Between	
LIMESTONE BLUE MEDIUM 420 452	LIMESTONE TAN MEDIUM 452 492	Static Water Level			
LIMESTONE BROWN SOFT 492 512	SHALE/SANDSTONE BLUE MEDIUM 492 512	310 ft. from land surface Date Measured 09/14/2004			
SHALE GREEN MEDIUM 512 580		PUMPING LEVEL (below land surface)			
		320 ft. after 2 hrs. pumping 15 g.p.m.			
NO REMARKS		Well Head Completion			
		Pitless adapter manufacturer Model			
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade			
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)			
Located Minnesota Department of Health Unique Number Verification N/A System UTM - Nad83, Zone15, Meters Method GPS SA Off (averaged) Date N/A X: 582353 Y: 4841921		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Grout Material: Pearock from 182 to 320 ft. 8.25 yds.			
		Grout Material: Neat Cement from to 50 ft. 0.25 yds.			
		Grout Material: Neat Cement from to 512 ft. 10.75 yds.			
First Bedrock Last Strat		Nearest Known Source of Contamination			
		50 feet direction type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
County Well Index Online Report		Manufacturer's name Model number HP Volts			
		Length of drop Pipe ft. Capacity g.p.m. Type Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Aquifer Depth to Bedrock ft.		Well Contractor Certification			
		Thein Well Co. 55079 SANDERS, T. License Business Name Lic. Or Reg. No. Name of Driller			
713841		Printed 9/24/2008 HE-01205-07			

- **Luverne**

SITE SUMMARY

Site Name: Luverne

Fire Department: Luverne Fire Department
PO Box 659
Luverne, MN 56156

Site Contact: Don Deutsch, Fire Chief
507-283-9141 (work)

Training Location: Tree dump, 1/2 mile south of the city on Hwy 75, on the east side of road.

Training Location Coordinates (X,Y): 240970.28, 4835779.61

Type of foam used in training: AR-AFFF: Not sure of current brand; used to use 3M-brand.
Class A: Not sure of brand.

Foam training frequency: Quarterly

Foam use per training event: 5 gallons

Spent foam destination: Ground. After training, the city uses a payloader to pick up the dirt/gravel where the foam was used, for disposal at the city dump.

Annual foam use: AR-AFFF: 5 gallons
Class A: 20 to 30 gallons

Nearest surface water: A pond stream less than 1/4 mile south

Nearest wetland: Less than 1/4 mile east

Karst Area: Site is not located in a karst area

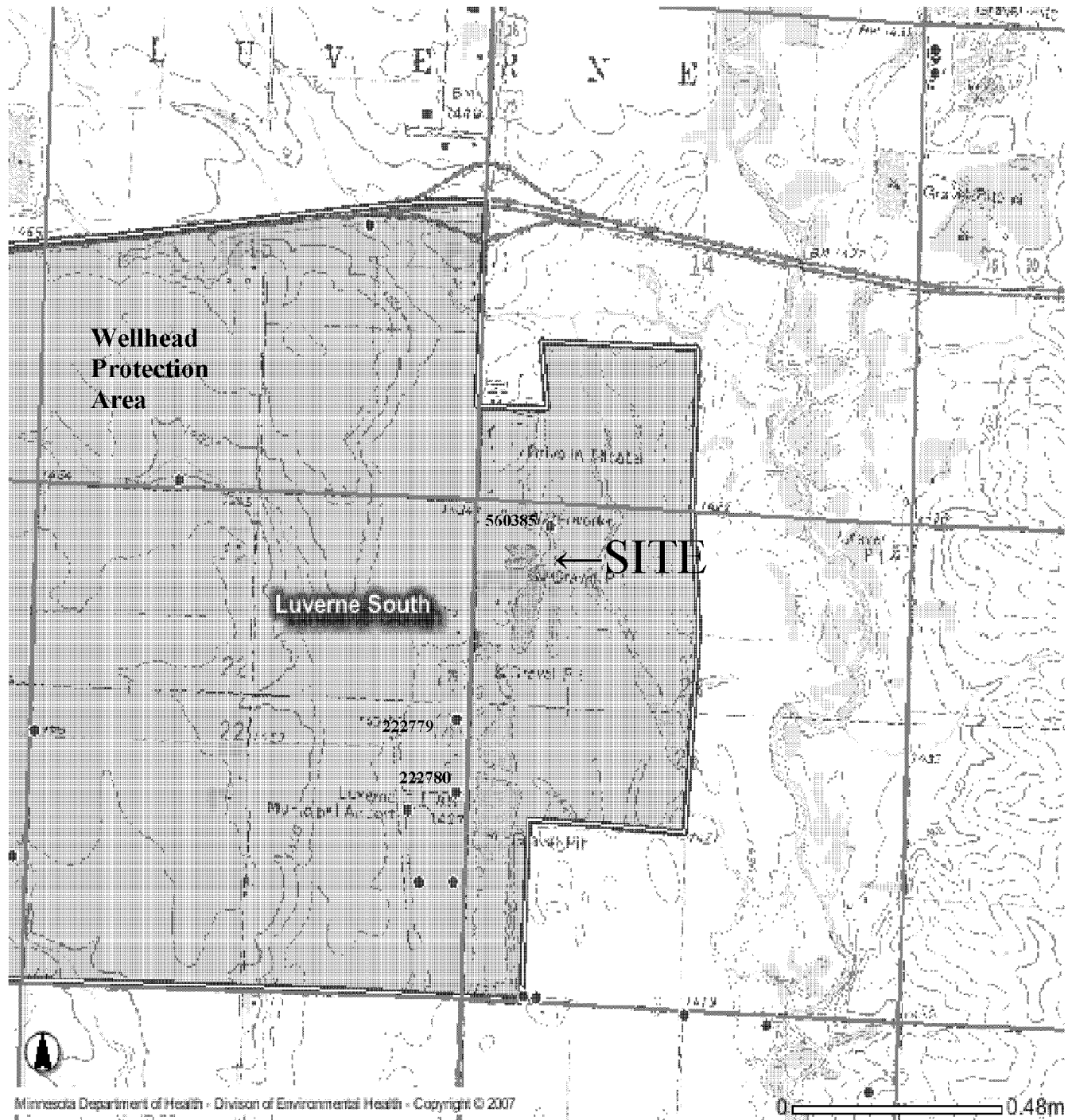
Nearest water well: Less than 1/4 mile to the north

Nearest Wellhead Protection Area: Training site located within WPA

Nearest Source Water Assessment Area: More than 1 mile

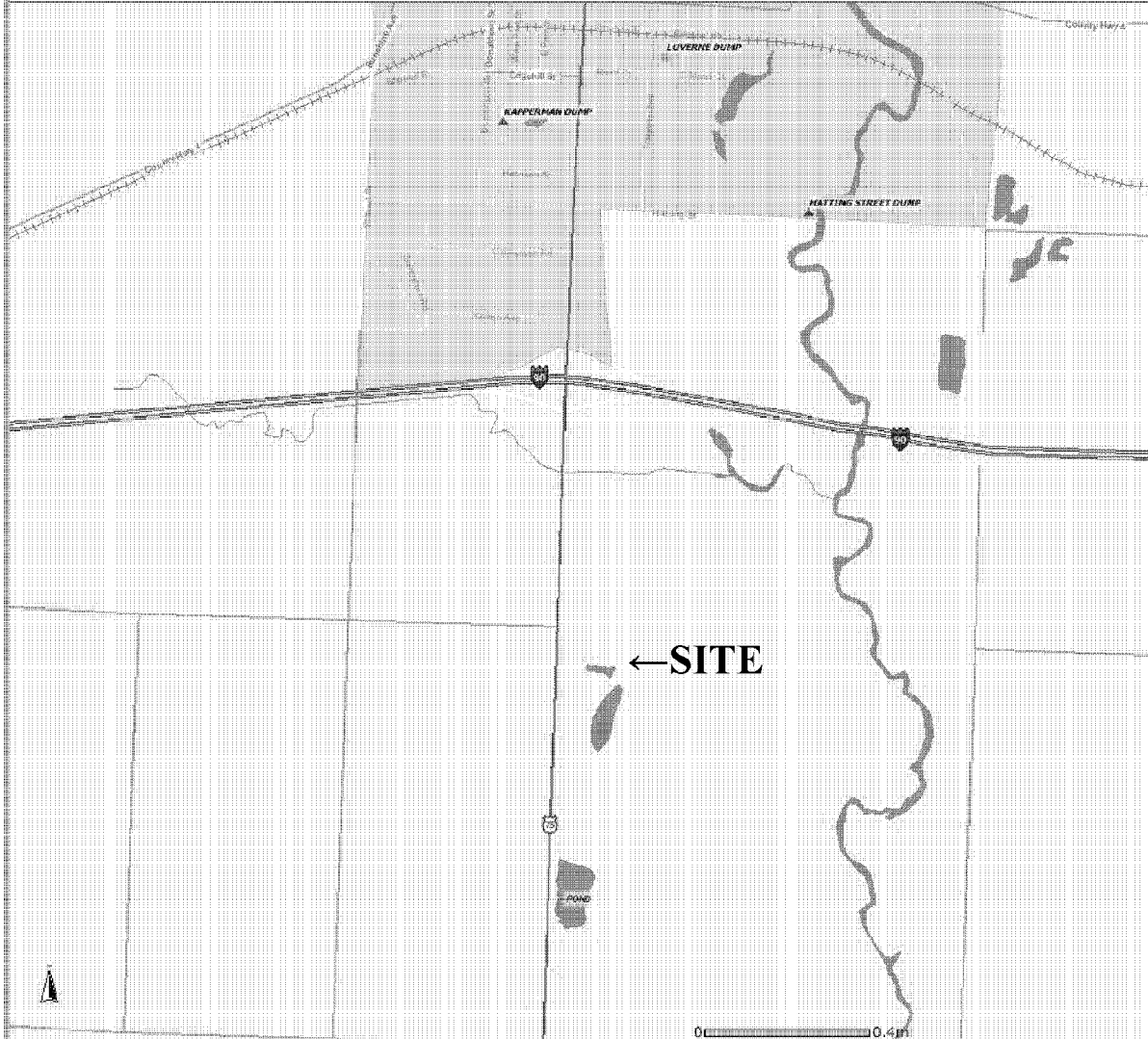
SITE RANKING: 28

LUVERNE CWI Well Map



Minnesota Department of Health - Division of Environmental Health - Copyright © 2007









Luverne What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

Sites

-  Deleted State Superfund
-  Permitted Solid Waste
- Unpermitted Dumps**
-  MRRAP
- State Superfund**
-  CERCLA
-  Federal Superfund
-  State Closed Landfill
- Voluntary Investigation & Cleanup**
-  RCRA TSD Facilities
- RCRA Investigation & Cleanup**
-  State Assessment

Minnesota Unique Well No.
222779

County Quad ID
 Rock Ash Creek
 21C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 05/06/2005
 Received Date

<p>Well Name LUVERNE 9</p> <p>Township Range Dir Section Subsections Elevation 102 45 W 22 ADDDAB Elevation Method 1424 ft. 7.5 minute topographic map (+/- 5 feet)</p> <p>Well Address LUVERNE MN</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>TOPSOIL</td> <td></td> <td></td> <td>0</td> <td>7</td> </tr> <tr> <td>GRAVEL</td> <td></td> <td></td> <td>7</td> <td>21</td> </tr> <tr> <td>SANDY CLAY</td> <td></td> <td></td> <td>21</td> <td>30</td> </tr> <tr> <td>SAND & GRAVEL</td> <td></td> <td></td> <td>30</td> <td>55</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	TOPSOIL			0	7	GRAVEL			7	21	SANDY CLAY			21	30	SAND & GRAVEL			30	55	<p>Well Depth 55 ft. Depth Completed 55 ft. Date Well Completed 00/00/1962</p> <p>Drilling Method --</p> <p>Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to ft.</p> <p>Use Abandoned Status Sealed</p> <p>Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>12 in. to 38 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> <p>Open Hole from ft. to ft.</p> <p>Screen YES Make Type brass</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td>12</td> <td></td> <td>17</td> <td>38 ft. and 55 ft.</td> </tr> </tbody> </table> <p>Static Water Level 9 ft. from Land surface Date Measured 00/00/1962</p> <p>PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p> <p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Grout Material: from 0 to 28 ft. 0</p> <p>Nearest Known Source of Contamination ___feet ___direction ___type</p> <p>Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity 225_g.p.m. Type Submersible Material</p> <p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Well Contractor Certification United States Geological Survey USGS License Business Name Lic. Or Reg. No. Name of Driller</p>	Casing Diameter	Weight	Hole Diameter	12 in. to 38 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	12		17	38 ft. and 55 ft.
Geological Material	Color	Hardness	From	To																																				
TOPSOIL			0	7																																				
GRAVEL			7	21																																				
SANDY CLAY			21	30																																				
SAND & GRAVEL			30	55																																				
Casing Diameter	Weight	Hole Diameter																																						
12 in. to 38 ft.	lbs./ft.																																							
Diameter	Slot/Gauze	Length	Set Between																																					
12		17	38 ft. and 55 ft.																																					
<p>REMARKS WELL SEALED 05-29-1992 BY 91353 ORIGINAL USE MU - MUNICIPAL</p> <p>Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)</p> <p>Unique Number Verification Information from owner Date N/A</p> <p>System UTM - Nad83, Zone15, Meters X: 240728 Y: 4835176</p> <p>First Bedrock Last Strat Sand & larger Aquifer Quat. Water Table Aquifer Depth to Bedrock ft.</p>	<p>County Well Index Online Report</p> <p style="font-size: 24pt; text-align: center;">222779</p> <p style="text-align: right;">Printed 9/10/2008 HE-01205-07</p>																																							

Minnesota Unique Well No.
222780

County Quad ID
 Rock Ash Creek
 21C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 05/06/2005
 Received Date

Well Name LUVERNE 10		Well Depth 42 ft.	Depth Completed 42 ft.	Date Well Completed 00/00/1982
Township Range Dir Section Subsections Elevation 102 45 W 22 DAADDB Elevation Method		1423 ft. Calc from DEM (USGS 7.5 m or equiv.)		
Well Address LUVERNE MN		Drilling Method Cable Tool		
Geological Material TOPSOIL SAND & GRAVEL CLAY SAND		Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From Ft. to Ft.		
Color BLUE		Use Abandoned Status Sealed		
Hardness 0 7 7 25 25 28 28 42		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.		
From To		Casing Diameter Weight Hole Diameter 12 in. to 17 ft. lbs./ft. 10 in. to 34 ft. lbs./ft.		
		Open Hole from ft. to ft.		
		Screen YES Make Type stainless steel		
		Diameter Slot/Gauze Length Set Between 12 125 8 17 ft. and 25 ft. 12 70 8 34 ft. and 42 ft.		
		Static Water Level 9 ft. from Land surface Date Measured 00/00/1982		
		PUMPING LEVEL (below land surface) ft. after hrs. pumping 225 g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
REMARKS WELL #10 WELL SEALED 04-11-2003 BY 91886 ORIGINAL USE PC - COMMUNITY SUPPLY		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Unique Number Verification Information from owner System UTM - Nad83, Zone15, Meters		Method GPS SA On (averaged) Date N/A X: 240726 Y: 4834941		
		Nearest Known Source of Contamination _ft _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP Volts Length of drop Pipe _ft Capacity _g.p.m Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock Last Strat Sand		Well Contractor Certification United States Geological Survey USGS License Business Name Lic. Or Reg. No Name of Driller		
County Well Index Online Report		222780		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.
560385

County Quad ID
 Rock Luverne 21B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 1031

Entry Date 07/10/2001
 Update Date 08/20/2008
 Received Date 05/09/1996

Well Name CITY OF LUVERNE		Well Depth 13 ft.	Depth Completed 12 ft.	Date Well Completed 10/03/1995		
Township Range Dir Section Subsections Elevation 102 45 W 23 BBACAB Elevation Method		Calc from DEM (USGS 7.5 m or equiv.) 1425 ft.				
Drilling Method Auger (non-specified)						
Geological Material CLAY CLAY W/ SAND MUDDY SAND MUDDY COARSE GRAVEL W/ CLAY LAYERS Color BLACK GRAY GRAY GRY/BRN Hardness 0 5 5 7 7 8 8 13 From To		Drilling Fluid --		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Use Monitor well				
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 9.5 ft.		lbs./ft.	6 in. to 13 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	3	9.5 ft. and 12.5 ft.
		Static Water Level 4.5 ft. from Land surface Date Measured 10/03/1995				
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS WELL HEAD COMPLETION - 7' LONG, 3' ABOVE GRADE		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Department of Health Method Digitization (Screen) - Map (1:24,000)		Grout Material: Neat Cement from 0 to 3 ft. 2 bags				
Unique Number Verification N/A Date N/A		Grout Material: Bentonite from 3 to 7 ft. 1 bags				
System UTM - Nad83, Zone15, Meters X: 241075 Y: 4835801		Nearest Known Source of Contamination 20 feet E direction Other type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification U.S. Geol. Survey M0113 ROSEMORE D. License Business Name Lic. Or Reg. No. Name of Driller						
First Bedrock Last Strat		Aquifer Depth to Bedrock ft.				
County Well Index Online Report		560385		Printed 9/10/2008 HE-01206-07		

- **Mapleton**

SITE SUMMARY

Site Name: Mapleton

Fire Department: Mapleton Fire Department
Mapleton, MN 55065

Site Contact: Chris Langworthy, Fire Chief
507-524-3341 (home)

Training Location: Street in front of fire station, 103 3rd Ave. NE

Training Location Coordinates (X,Y): 423391.62, 4864319.73

Type of foam used in training: AFFF: Class B foam stick (unsure of brand)
Class A: Class A foam stick (unsure of brand)
Other: POK Quick Stik foam (historical use)

Foam training frequency: Bi-annually

Foam use per training event: Less than 5 gallons (1/2 stick)

Spent foam destination: Storm sewer

Annual foam use: AFFF: Less than 5 gallons (3 sticks)
Class A: Less than 5 gallons (3 sticks)

Nearest surface water: Lake at Wayside Park, 1/4 to 1/2 mile north

Nearest wetland: More than 1 mile

Karst Area: Training site is located in a covered karst area

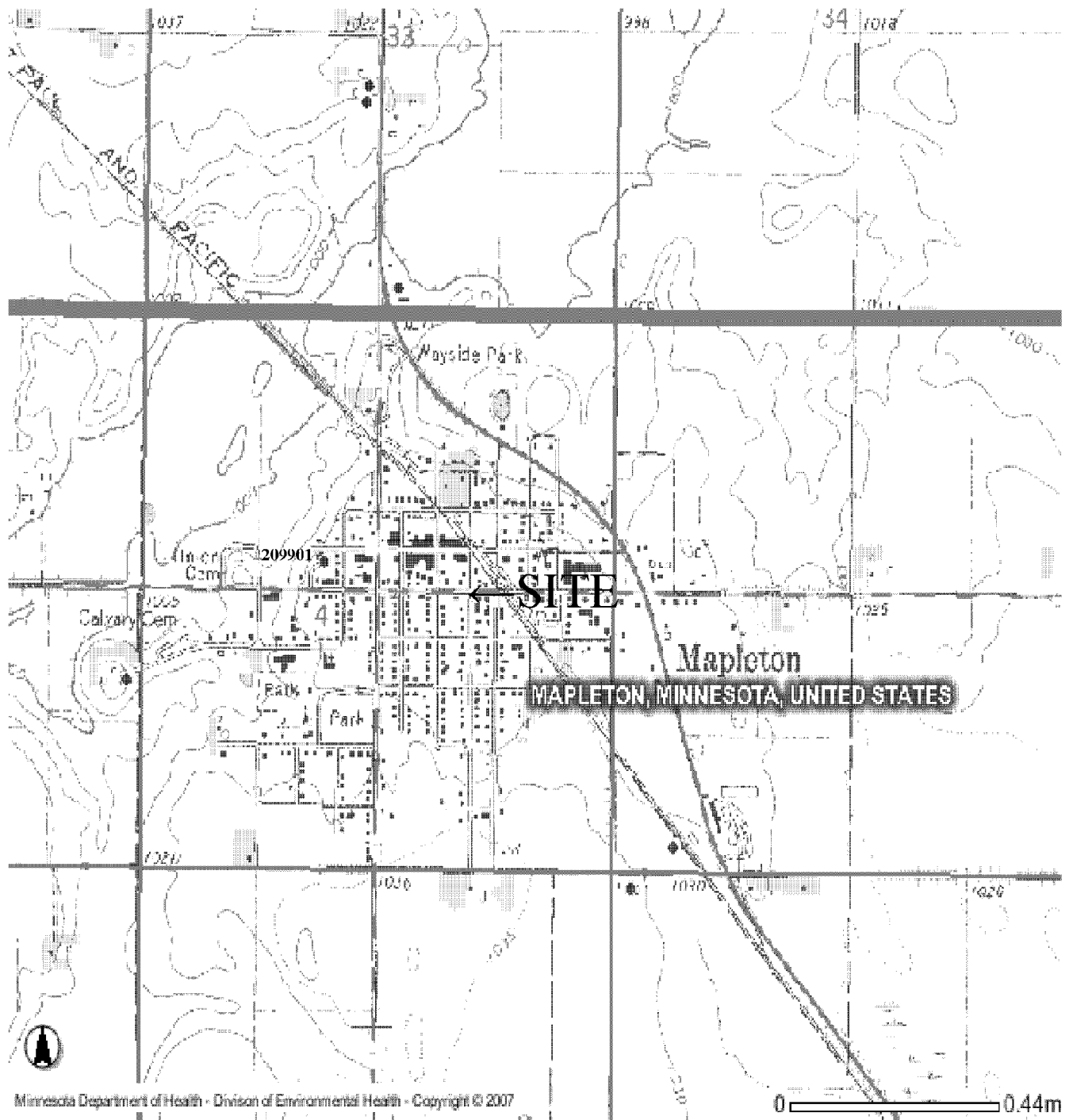
Nearest water well: 1/4 to 1/3 mile west

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Site is located in a SWAA

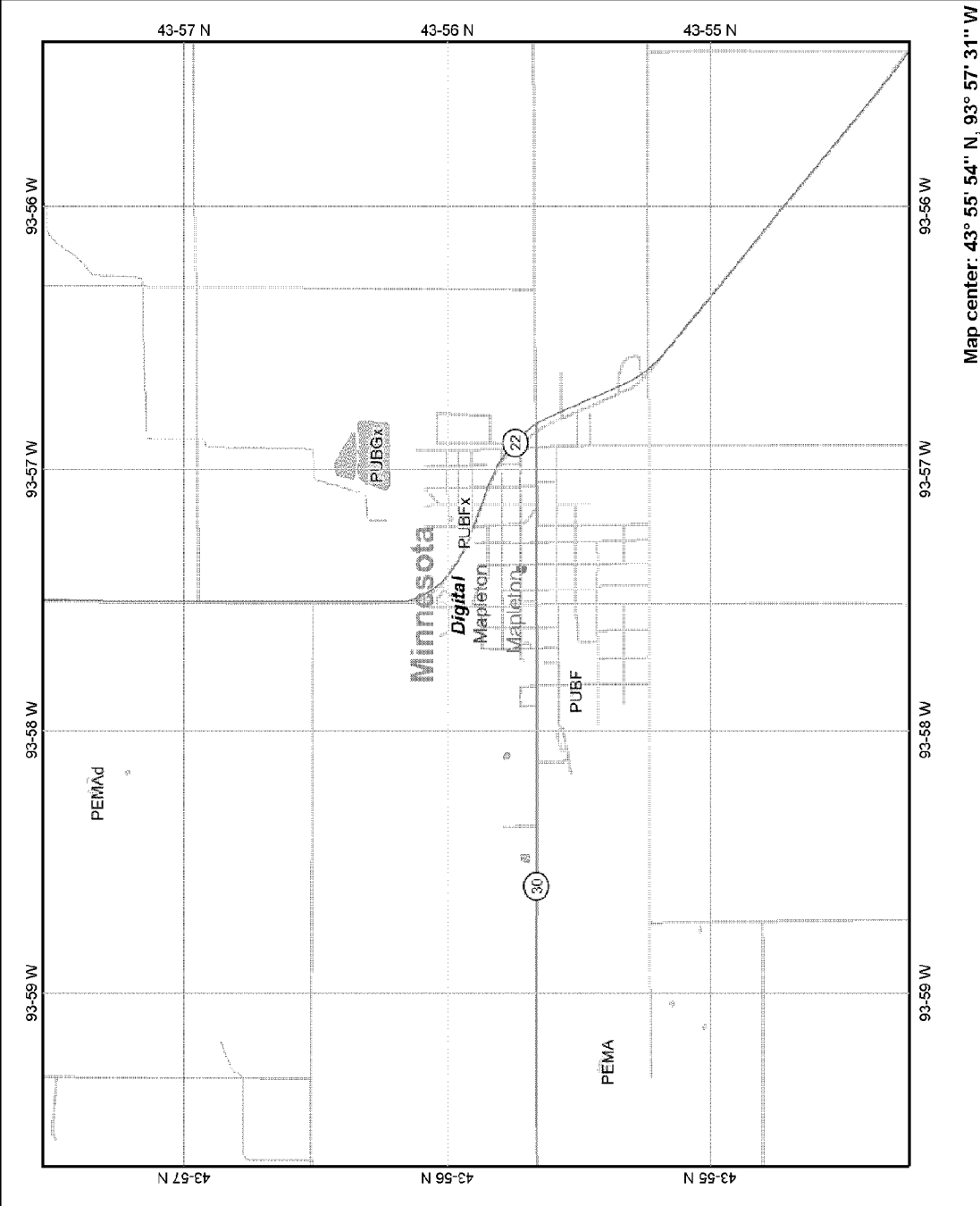
SITE RANKING: 11

MAPLETON CWI Well Map



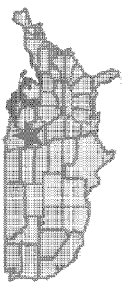
Minnesota Department of Health - Division of Environmental Health - Copyright © 2007

Mapleton Wetland Map



Map center: 43° 55' 54" N, 93° 57' 31" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



Legend

- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
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- NHD Streams
- Counties 100K
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- South America
- North America



Scale: 1:42,729

Mapleton What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
209901

County Blue Earth
 Quad Mapleton
 Quad ID 34E

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/17/1997
 Update Date 06/20/1997
 Received Date

Well Name MAPLETON CREAMERY		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 105 26 W 4 BDDBCC Elevation Method 1031 ft. 7.5 minute topographic map (+/- 5 feet)		186 ft.	186 ft.	11/30/1933
Drilling Method Cable Tool				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Industrial				
Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>		No Above/Below 0 ft.		
Casing Diameter		Weight	Hole Diameter	
6 in. to ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen NO Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material		Color	Hardness	From To
CLAY		YELLOW		0 20
CLAY & SAND		BLUE		20 140
LIMESTONE		PINK		140 160
LIMESTONE & SANDSTONE BEDS				160 186
Static Water Level				
58 ft. from land surface Date Measured 1934				
PUMPING LEVEL (below land surface)				
ft. after hrs. pumping g.p.m.				
Well Head Completion				
Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification Other, note in remarks Date N/A				
System UTM - Nad83, Zone15, Meters X: 422876 Y: 4864381				
Nearest Known Source of Contamination				
_ft. _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number __ HP 0 Volts				
Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
First Bedrock Prairie Du Chien Group		USGS		BERGGREEN
Last Strat Prairie Du Chien Group		Lic. Or Reg. No.		Name of Driller
Aquifer Prairie Du Chien Group		Depth to Bedrock 140 ft.		
County Well Index Online Report		209901		Printed 9/24/2008 HE-01205-07

- **New York Mills**

SITE SUMMARY

Site Name: New York Mills

Fire Department: New York Mills Fire Department
PO Box 172
New York Mills, MN 56567

Site Contact: Reed Jacobson, Fire Chief
218-639-2787

Training Location: City utility gravel parking lot, west side of town, between Centennial Dr. W. and Hwy. 10.

Training Location Coordinates (X,Y): 316478.52, 5155304.07

Type of foam used in training: AFFF: Ansul

Foam training frequency: About every 3 years, to use up expired foam

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: 0 gallons
Class A: 30 gallons

Nearest surface water: Less than 1/4 mile to the south and east

Nearest wetland: Less than 1/4 mile west and east

Karst Area: Site is not located in a karst area.

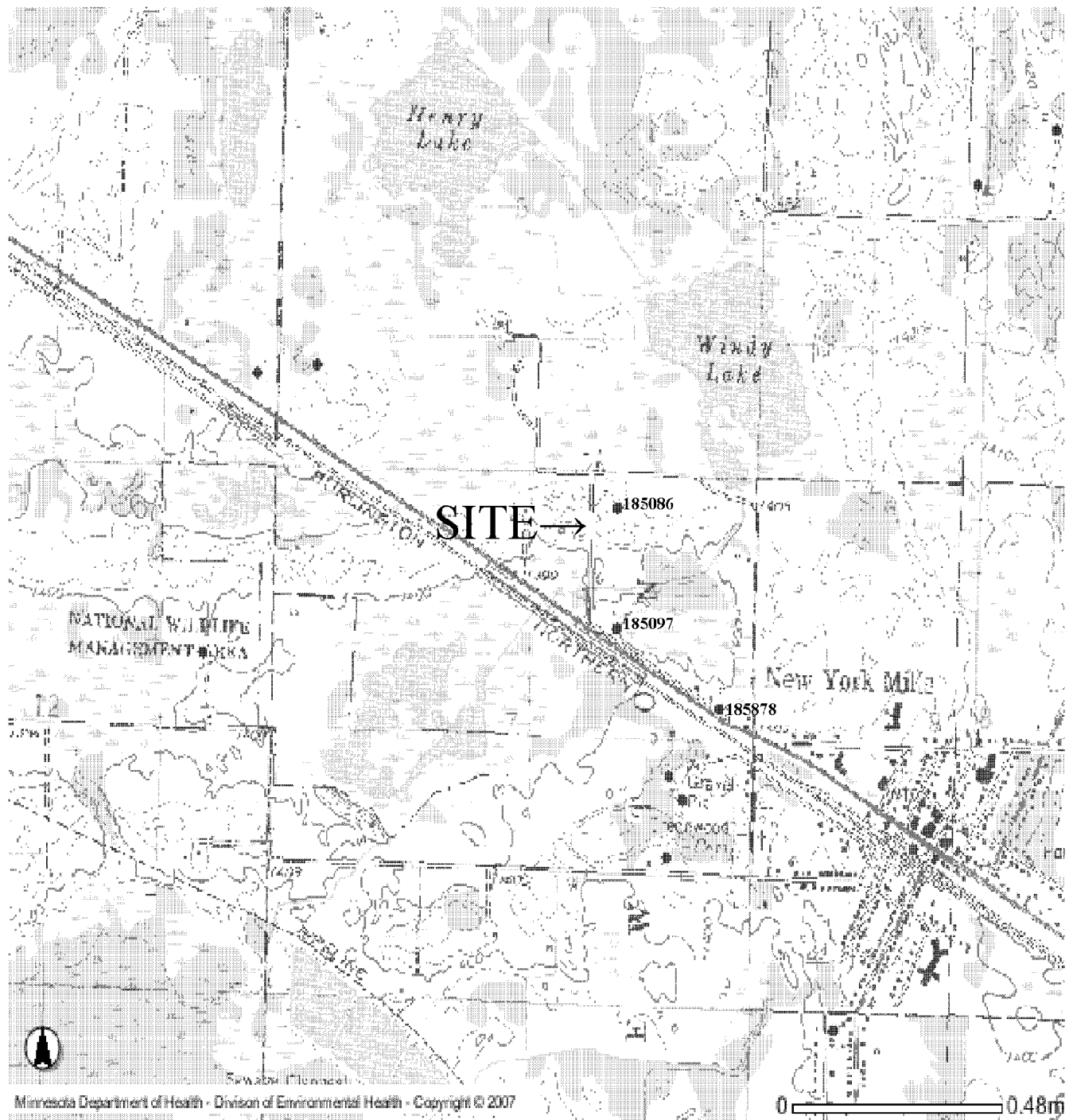
Nearest water well: Less than 1/4 mile north

Nearest Wellhead Protection Area: More than 1 mile

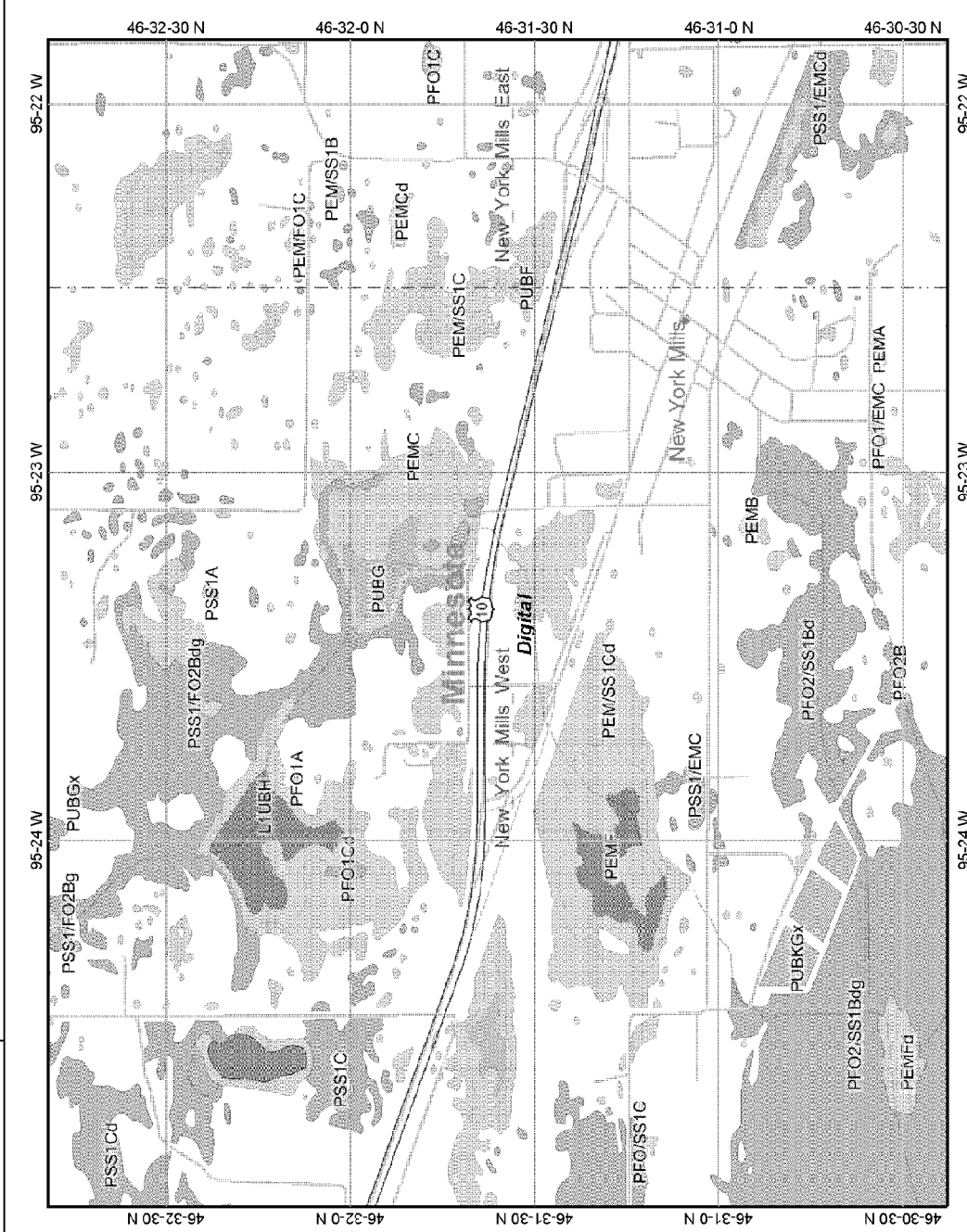
Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 13

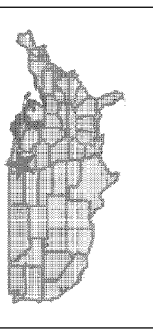
NEW YORK MILLS CWI Well Map



New York Mills Wetland Map



Map center: 46° 31' 36" N, 95° 23' 25" W



Legend

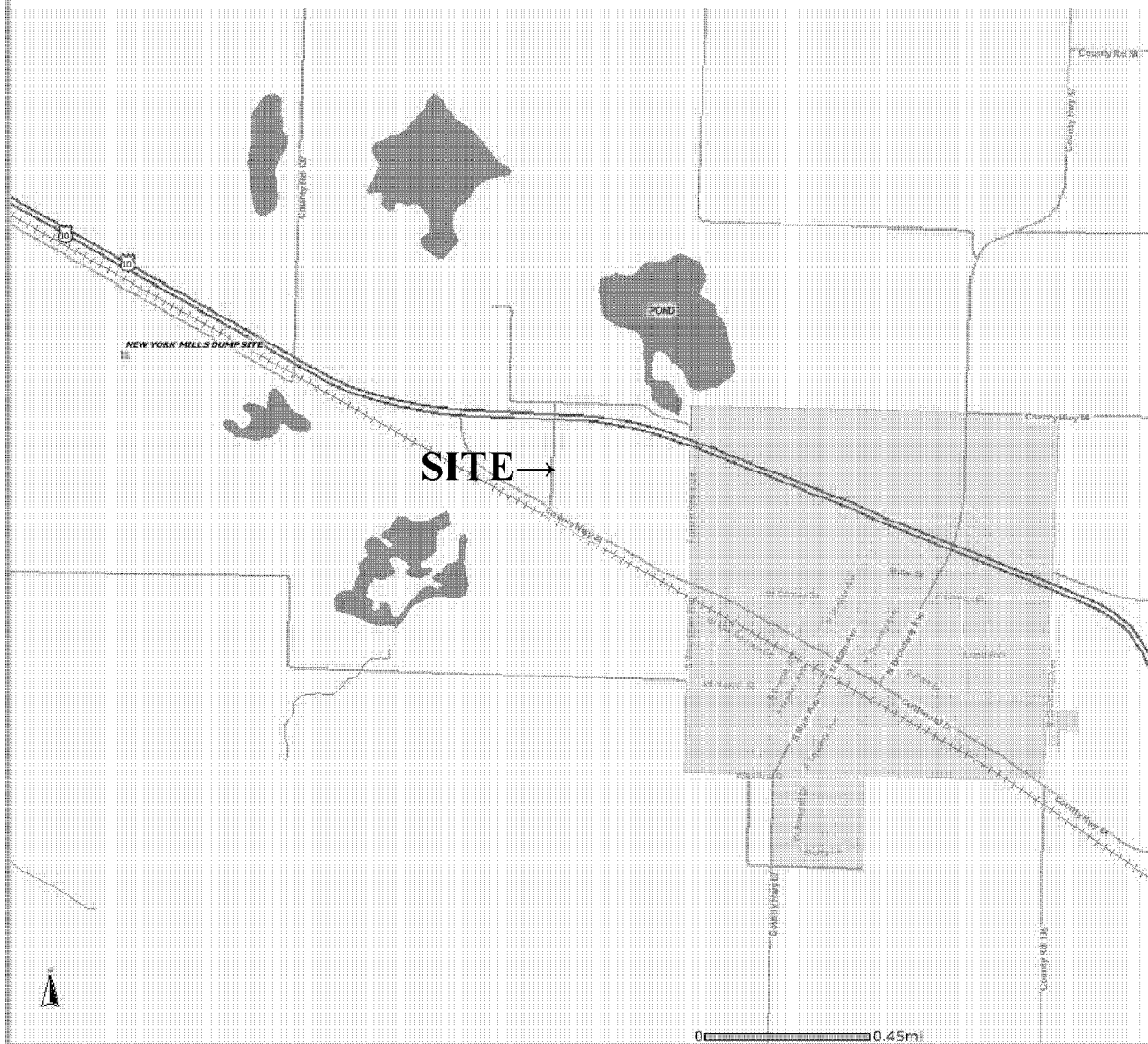
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



Scale: 1:31,613

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

New York Mills *What's In My Neighborhood* Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
185086

County: Otter Tail
 Quad: New York Mills West
 Quad ID: 236C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/17/1988
 Update Date: 07/31/1998
 Received Date:

Well Name THOMPSON, JACK Township Range Dir Section Subsections Elevation 135 37 W 7 ABA 1420 ft. Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 130 ft. Depth Completed 111 ft. Date Well Completed 05/17/1983 Drilling Method Non-specified Rotary																																																																																				
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Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 316586 Y: 5155391	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 05/00/1983 Manufacturer's name JACUZZI Model number 754B HP 0.75 Volts 230 Length of drop Pipe 63 ft. Capacity 20 g.p.m. Type Submersible Material Plastic																																																																																				
First Bedrock Last Strat Sand & larger-gray Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Cichy R.m. Well Co. 56154 CICHY, E. License Business Name Lic. Or Reg. No. Name of Driller																																																																																				
County Well Index Online Report	185086 Printed 9/12/2008 HE-01205-07																																																																																				

Minnesota Unique Well No.
185097

County: Otter Tail
 Quad: New York Mills West
 Quad ID: 236C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/17/1988
 Update Date: 09/03/1998
 Received Date:

Well Name: WALLACE, RON Township Range Dir Section Subsections Elevation: 1400 ft. 135 37 W 7 ACAACB Elevation Method: 7.5 minute topographic map (+/- 5 feet)	Well Depth: 145 ft. Depth Completed: 135 ft. Date Well Completed: 07/15/1983 Drilling Method: Non-specified Rotary																																																																																																																		
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NO REMARKS Located: Minnesota Geological Survey Method: Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from neighbor: Date N/A System: UTM - Nad83, Zone15, Meters X: 318534 Y: 5155024	Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination: ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: 08/00/1983 Manufacturer's name: AERMCTOR Model number: SD-12-50 HP: 0.5 Voits: 230 Length of drop Pipe: 59 ft. Capacity: 15 g.p.m. Type: Submersible Material: Plastic																																																																																																																		
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County Well Index Online Report	185097	Printed 9/12/2008 HE-01205-07																																																																																																																	

Minnesota Unique Well No.

185878

County Offer Tail
 Quad New York Mills West
 Quad ID 236C

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 09/04/1998
 Received Date

Well Name CICHY, RAYMOND Township Range Dir Section Subsections Elevation 1405 ft. 135 37 W 7 ADDDDD Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 160 ft. Depth Completed 115 ft. Date Well Completed 198204 Drilling Method Non-specified Rotary																																																																										
Well Address NEW YORK MILLS MN	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below -0.5 ft.																																																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>TOP SOIL</td><td>DARK</td><td>SOFT</td><td>0</td><td>1</td></tr> <tr><td>CLAY</td><td>YELLOW</td><td>SOFT</td><td>1</td><td>8</td></tr> <tr><td>SAND AND WATER</td><td>YELLOW</td><td>SOFT</td><td>8</td><td>18</td></tr> <tr><td>CLAY</td><td>GRAY</td><td>SOFT</td><td>18</td><td>23</td></tr> <tr><td>CLAY</td><td>BLUE</td><td>SOFT</td><td>23</td><td>40</td></tr> <tr><td>CLAY AND ROCKS</td><td>BLUE</td><td>HARD</td><td>40</td><td>85</td></tr> <tr><td>CLAY</td><td>BLUE</td><td>SOFT</td><td>85</td><td>111</td></tr> <tr><td>SAND AND WATER</td><td>GRAY</td><td>SOFT</td><td>111</td><td>114</td></tr> <tr><td>CLAY AND SAND</td><td>GRAY</td><td>SOFT</td><td>114</td><td>117</td></tr> <tr><td>SAND AND WATER</td><td>GRAY</td><td>SOFT</td><td>117</td><td>120</td></tr> <tr><td>CLAY</td><td>BLUE</td><td>SOFT</td><td>120</td><td>160</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	TOP SOIL	DARK	SOFT	0	1	CLAY	YELLOW	SOFT	1	8	SAND AND WATER	YELLOW	SOFT	8	18	CLAY	GRAY	SOFT	18	23	CLAY	BLUE	SOFT	23	40	CLAY AND ROCKS	BLUE	HARD	40	85	CLAY	BLUE	SOFT	85	111	SAND AND WATER	GRAY	SOFT	111	114	CLAY AND SAND	GRAY	SOFT	114	117	SAND AND WATER	GRAY	SOFT	117	120	CLAY	BLUE	SOFT	120	160	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 110 ft.</td> <td>lbs./ft.</td> <td>4 in. to 115 ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make HOWARD SMITH Type stainless steel <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td>3.8</td> <td>20</td> <td>5</td> <td>110 ft. and 115 ft.</td> </tr> </tbody> </table> Static Water Level 11 ft. from Land surface Date Measured 06/05/1982 PUMPING LEVEL (below land surface) 11 ft. after hrs. pumping 60 g.p.m.	Casing Diameter	Weight	Hole Diameter	4 in. to 110 ft.	lbs./ft.	4 in. to 115 ft.	Diameter	Slot/Gauze	Length	Set Between	3.8	20	5	110 ft. and 115 ft.
Geological Material	Color	Hardness	From	To																																																																							
TOP SOIL	DARK	SOFT	0	1																																																																							
CLAY	YELLOW	SOFT	1	8																																																																							
SAND AND WATER	YELLOW	SOFT	8	18																																																																							
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CLAY AND ROCKS	BLUE	HARD	40	85																																																																							
CLAY	BLUE	SOFT	85	111																																																																							
SAND AND WATER	GRAY	SOFT	111	114																																																																							
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Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Name on mailbox Date N/A System UTM - Nad83, Zone15, Meters X: 316956 Y: 5154778	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 06/05/1982 Manufacturer's name AERMATOR Model number SA-75-M HP 0.75 Volts 230 Length of drop Pipe 63 ft. Capacity 32 g.p.m. Type Submersible Material Plastic																																																																										
First Bedrock Last Strat Clay-gray Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Cichy R.m. Well Co. 56154 CICHY, R. License Business Name Lic. Or Reg. No. Name of Driller																																																																										
County Well Index Online Report	185878 Printed 9/12/2008 HE-01205-07																																																																										

- **Newfolden**

SITE SUMMARY

Site Name: Newfolden

Fire Department: Newfolden Fire Department
PO Box 188
Newfolden, MN 56378

Site Contact: Keith Rud, Fire Chief
218-874-7135
krud@wiktel.com

Training Location: Fire hall, 1st Street

Training Location Coordinates (X,Y): 253527.42, 5361252.2

Type of foam used in training: Other: Oxford 229 Wetting Agent, used in training not specified

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Other: 5 gallons
Class A: 5 to 10 gallons

Nearest surface water: Middle River approximately 1/4 mile southwest

Nearest wetland: Less than 1 mile to the southwest

Karst Area: Site is not located in a karst area.

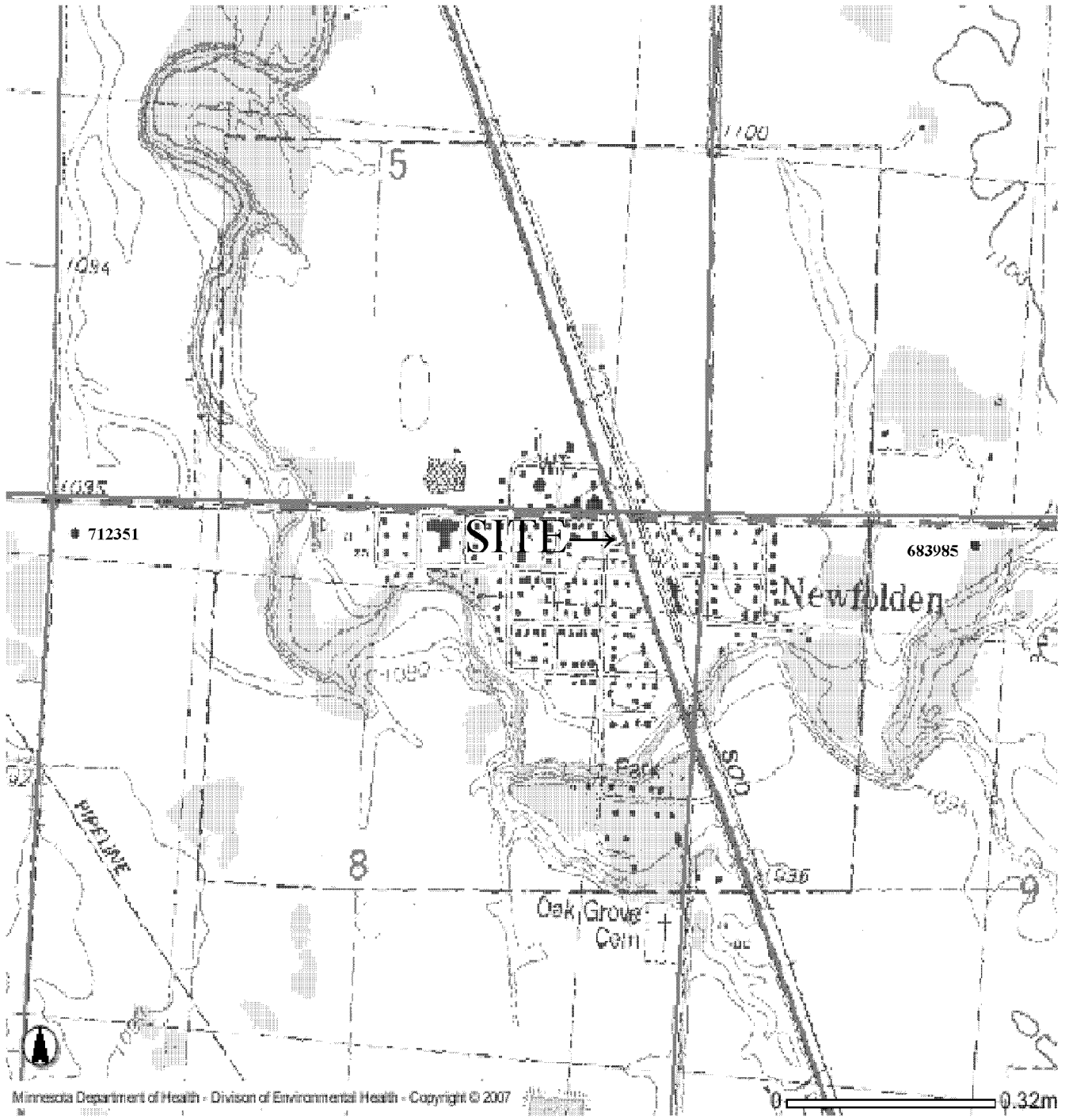
Nearest water well: 1/2 to 1 mile east

Nearest Wellhead Protection Area: More than 1 mile

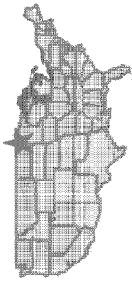
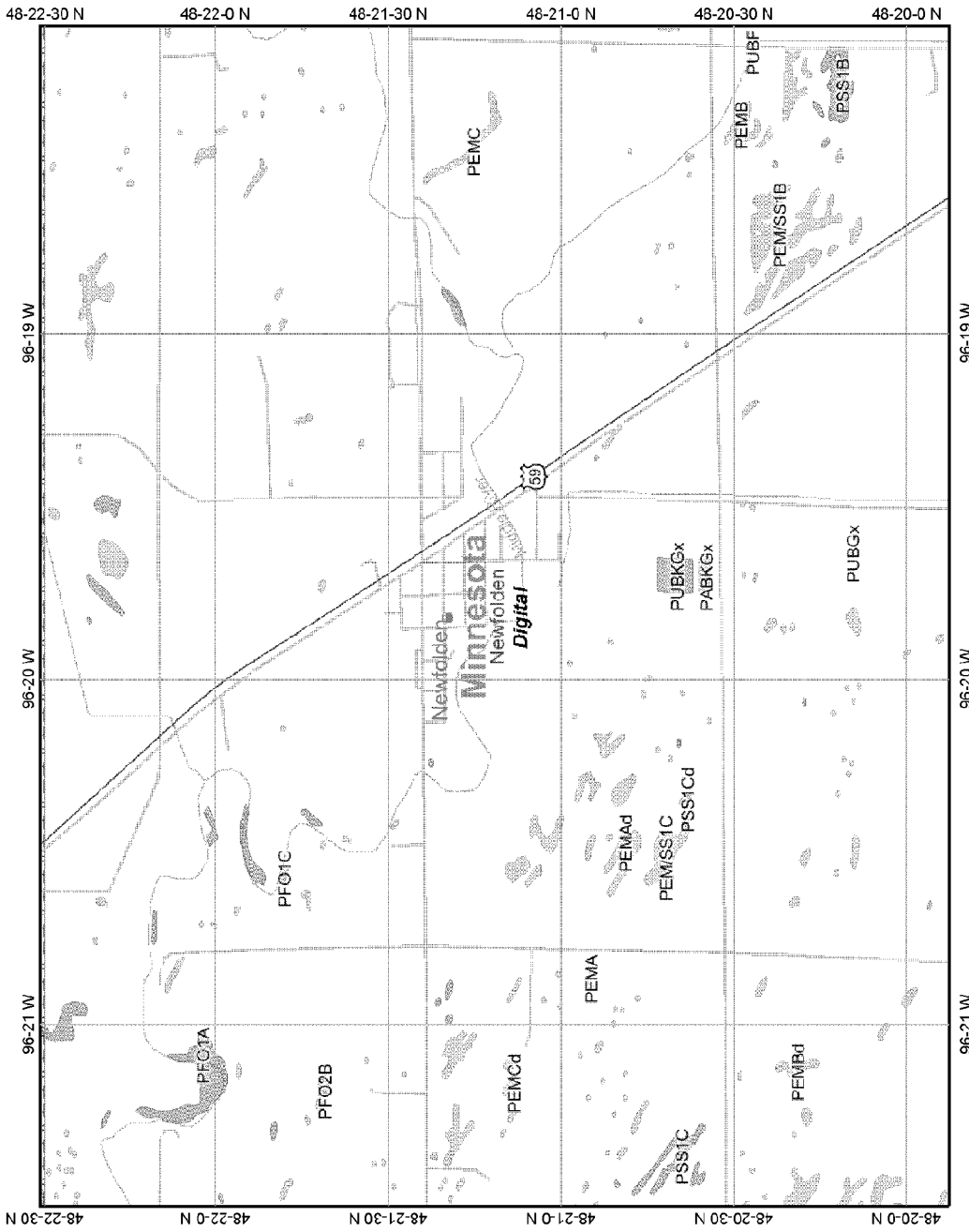
Nearest Source Water Assessment Area: Site located within a SWAA

SITE RANKING: 12

NEWFOLDEN CWI Well Map



Newfolden Wetland Map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

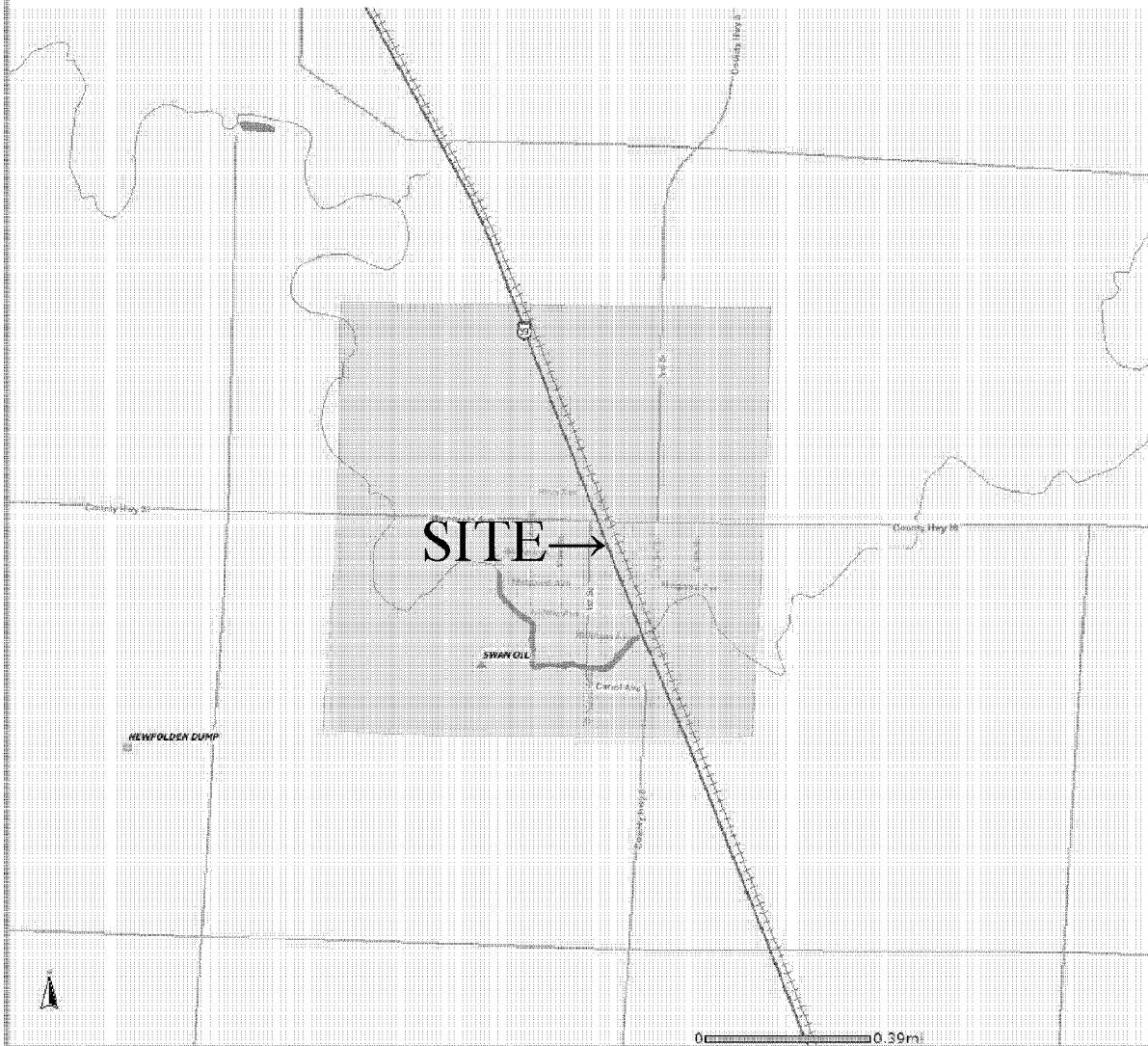
Scale: 1:34,158



Map center: 48° 21' 12" N, 96° 19' 49" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Newfolden What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.

683985

County: Marshall
 Quad: Newfolden
 Quad ID: 416D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/06/2005
 Update Date: 05/09/2006
 Received Date: 01/31/2005

Well Name: KNUTSON, RANDY		Well Depth: 85 ft.	Depth Completed: 83 ft.	Date Well Completed: 01/11/2005		
Township Range Dir Section Subsections Elevation: 156 44 W 9 BAABDB Elevation Method		Calc from DEM (USGS 7.5 m or equiv.)				
Well Address 12615 330TH ST NW NEWFOLDEN MN 56738 Geological Material Color Hardness From To TOP SOIL BLACK SOFT 0 1 CLAY - STONES GRAY MEDIUM 1 75 SAND GRAY SOFT 75 85		Drilling Method: Non-specified Rotary				
		Drilling Fluid: Bentonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Use: Domestic				
		Casing Type: Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter: 4 in. to 78 ft.		Weight: 1.5 lbs./ft.	Hole Diameter: 8 in. to 30 ft. 6.25 in. to 85 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type				
		Diameter: 3		Slot/Gauze: 12	Length: 5	Set Between: 78 ft. and 83 ft.
		Static Water Level: 12 ft. from Land surface Date Measured 01/03/2005				
		PUMPING LEVEL (below land surface): 75 ft. after 2 hrs. pumping 7 g.p.m.				
Well Head Completion: Pitless adapter manufacturer MONITOR Model BULLDOG						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Department of Health Unique Number Verification N/A System UTM - Nad83, Zone15, Meters		Method GPS SA Off (averaged) Date 12/22/2005 X: 254434 Y: 5361240				
Grout Material: High solids bentonite		from to 40 ft. 1 bags				
Nearest Known Source of Contamination: 100 feet S direction Septic tank/drain field type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 01/03/2005						
Manufacturer's name STA-RITE Model number 10SP40C2J HP 0.5 Volts 230 Length of drop Pipe 75 ft. Capacity 10 g.p.m Type Submersible Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification: Davidson Well License Business Name 45654 Lic. Or Reg. No. DAVIDSON J. Name of Driller						
First Bedrock: Last Strat		Aquifer: Depth to Bedrock ft				
County Well Index Online Report		683985		Printed 6/28/2008 HE-01205-07		

Minnesota Unique Well No.
712351

County: Marshall
 Quad: Newfolden
 Quad ID: 416D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 08/02/2006
 Update Date: 04/14/2005
 Received Date: 04/14/2005

Well Name: ANDERSON, ROB		Well Depth: 112 ft.	Depth Completed: 110 ft.	Date Well Completed: 03/01/2005	
Township Range Dir Section Subsections Elevation: 156 44 W 8 BBBDC		Elevation Method: Calc from DEM (USGS 7.5 m or equiv.)			
Well Address 330TH ST NW NEWFOLDEN MN 56738 Geological Material Color Hardness From To TOPSOIL BLACK SOFT 0 1 CLAY-STONES GRAY MEDIUM 1 95 SAND-FINE GRAY SOFT 95 112		Drilling Method: Non-specified Rotary			
		Drilling Fluid: Bentonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Use: Domestic			
		Casing Type: Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter: 4 in. to 100 ft.	Weight: 1.5 lbs./ft.	Hole Diameter:	
		Open Hole: from ft. to ft.			
		Screen YES Make JOHNSON Type			
		Diameter: 3	Slot/Gauze: 10	Length: 10	Set Between: 100 ft. and 110 ft.
		Static Water Level: 10 ft. from No Information Date Measured: 03/01/2005			
		PUMPING LEVEL (below land surface): 30 ft. after 2 hrs. pumping 35 g.p.m.			
Well Head Completion: Pitless adapter manufacturer: MONITOR Model: BULLDOG					
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade					
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located: Minnesota Department of Health		Method: GPS SA Off (averaged)			
Unique Number Verification: N/A		Date: 12/22/2005			
System: UTM - Nad83, Zone15, Meters		X: 252198 Y: 5361266			
		Grout Material: High solids bentonite from 8 to 60 ft. 2 bags			
		Nearest Known Source of Contamination: 100 feet N direction Septic tank/drain field type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: 03/01/2005			
		Manufacturer's name: STA-RITE Model number: 10SP40C12 HP: 0.5 Volts: 230			
		Length of drop Pipe: 40 ft. Capacity: 10 g.p.m. Type: Submersible Material:			
		Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock: Last Strat		Well Contractor Certification: Davidson Well 45654			
		License Business Name: Lic. Or Reg. No. Name of Driller:			
County Well Index Online Report		712351		Printed 6/28/2008 HE-01205-07	

- **Northfield**

SITE SUMMARY

Site Name: Northfield

Fire Department: Northfield Fire Department
300 W. 5th Street
Northfield, MN 55057

Site Contact: Mitchell Dewar, Captain/Training Officer
507-271-4566
mdewar@ci.northfield.mn.us

Training Location: City street shop, 1710 Riverview Drive, Northfield

Training Location Coordinates (X,Y): 485121.54, 4920959.49

Type of foam used in training: AFFF: 3M ATC 3%-6%

Foam training frequency: Approximately every 5 years; haven't trained with foam in 10 to 15 years

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: 20 gallons over the last 30 years
Class A: 300 gallons over the last 10 years

Nearest surface water: Cannon River located less than 1/4 mile west

Nearest wetland: Less than 1/4 mile west

Karst Area: Site is located in an active karst area

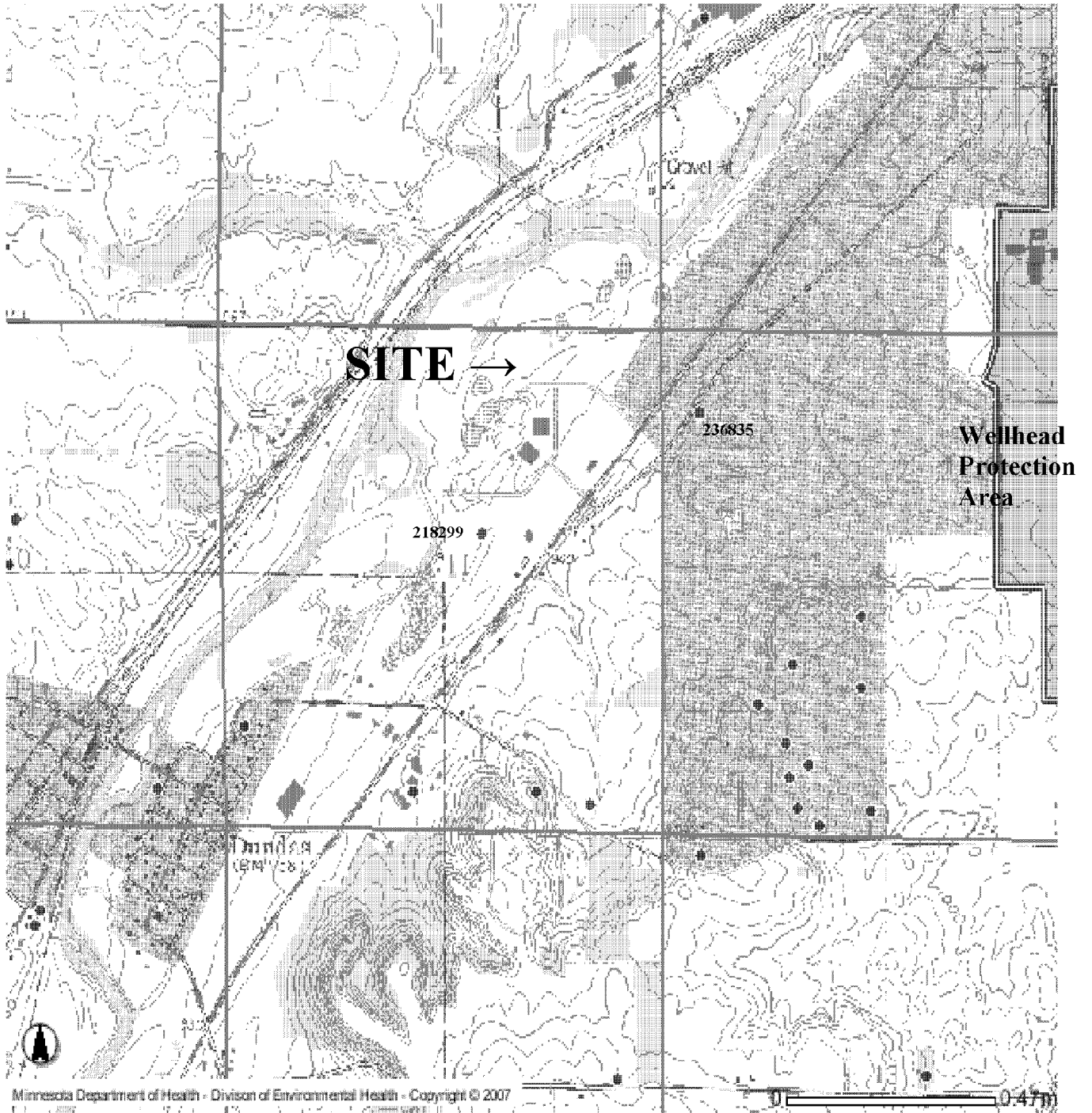
Nearest water well: Approximately 1/4 mile south

Nearest Wellhead Protection Area: Approximately 1 mile

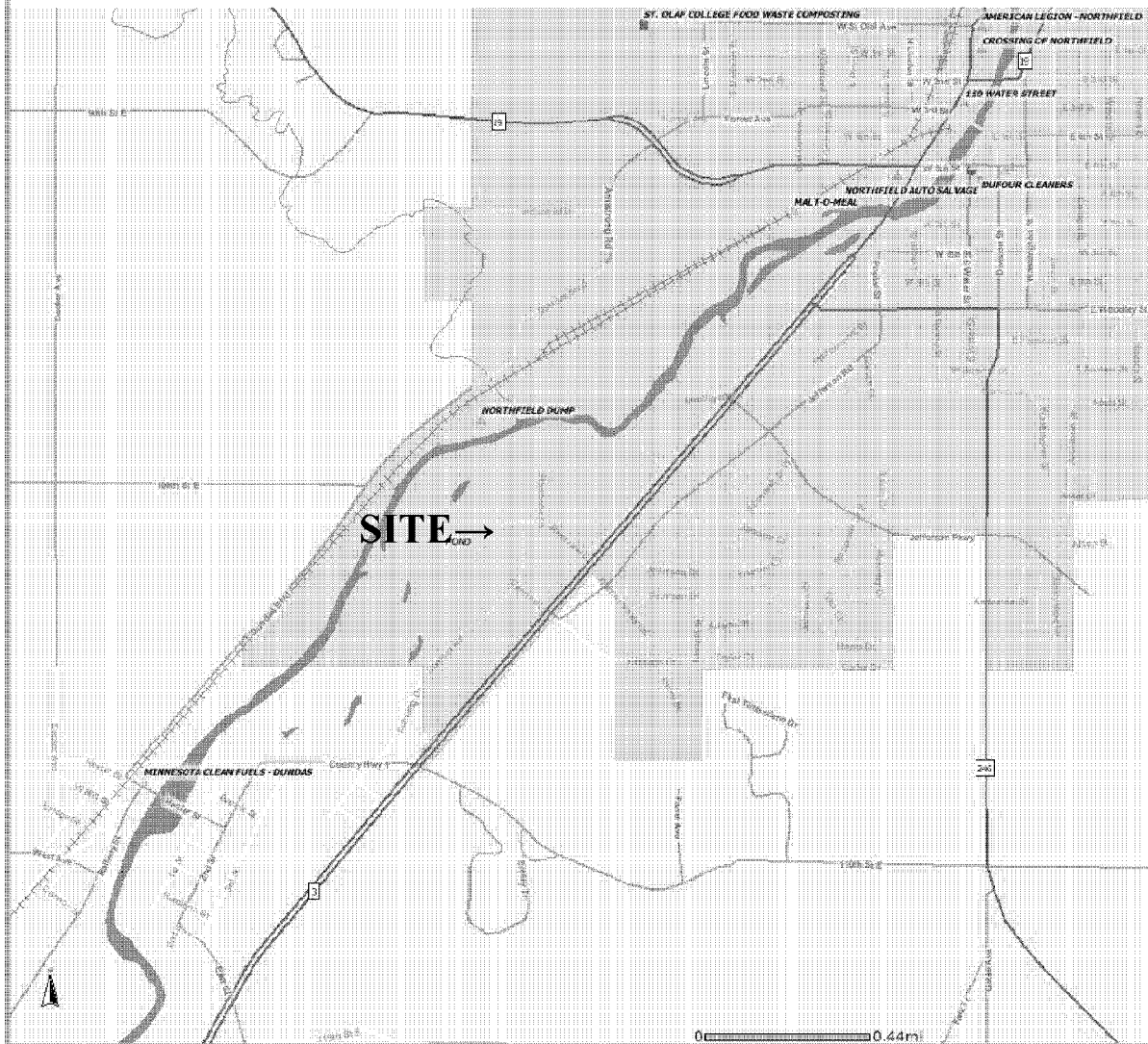
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 25

NORTHFIELD CWI Well Map



Northfield What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
218299

County Rice
 Quad Northfield
 Quad ID 71B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 04/23/1992
 Received Date

Well Name COLLEGE CITY BEVERAGE		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 111 20 W 11 ACCAAC Elevation Method 931 ft. 7.5 minute topographic map (+/- 5 feet)		73 ft.	73 ft.	09/25/1971
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Domestic		
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		4 in. to ft.	lbs./ft.	
		Open Hole from ft. to ft.		
		Screen Make Type		
		Diameter	Slot/Gauze	Length Set Between
Well Address NORTHFIELD MN				
Geological Material		Color	Hardness	From To
DRIFT				0 5
LIMESTONE				5 73
		Static Water Level ft. from Date Measured		
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification Name on mailbox Date N/A		Nearest Known Source of Contamination _feet _direction _type		
System UTM - Nad83, Zone15, Meters X: 484942 Y: 4920392		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number HP 0.5 Volts		
		Length of drop Pipe _ft. Capacity _g.p.m. Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
First Bedrock Prairie Du Chien Group Last Strat Prairie Du Chien Group		Aquifer Prairie Du Chien Group Depth to Bedrock 5 ft.		
County Well Index Online Report		218299	Printed 9/16/2008 HE-01205-07	

Minnesota Unique Well No.
236835

County Rice
 Quad Northfield
 Quad ID 71B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 10/27/1992
 Received Date

Well Name BARFAS, LUKES		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 111 20 W 12 BBCACB Elevation Method 954 ft. 7.5 minute topographic map (+/- 5 feet)		48 ft.	48 ft.	06/21/1966		
Drilling Method Non-specified Rotary						
Well Address HWY 3 S NORTHFIELD MN Geological Material MOSTLY CLAY LIMESTONE Color Hardness From To 0 17 17 48		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Use Domestic			From -ft. to Ft.	
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.				
		Casing Diameter	Weight	Hole Diameter		
		4 in. to 21 ft.	lbs./ft.			
		Open Hole from 21 ft. to 48 ft.				
		Screen NO Make Type				
		Diameter	Slot/Gauze	Length	Set Between	
		Static Water Level 15 ft. from land surface Date Measured 06/21/1966				
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.				
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS HOUSE ACROSS FROM NORTHFIELD BOWLING.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from neighbor Date 06/29/2004 System UTM - Nad83, Zone15, Meters X: 485730 Y: 4920776		Nearest Known Source of Contamination _ftct _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock Prairie Du Chien Group Last Strat Prairie Du Chien Group Aquifer Prairie Du Chien Group Depth to Bedrock 17 ft.		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
County Well Index Online Report		Well Contractor Certification Hartmann Well Co. 40174 License Business Name Lic. Or Reg. No. Name of Driller		Printed 9/16/2008 HE-01205-07		

- **Norwood Young America**

SITE SUMMARY

Site Name: Norwood

Fire Department: Norwood-Young America Fire Department
PO Box 85
327 W. Elm Street
Norwood, MN 55368

Site Contact: Brent Aretz, Fire Chief
952-467-2797 (home)

Training Location: Vacant lot owned by the city, intersection of South Street and Brush Street, Norwood

Training Location Coordinates (X,Y): 426573.08, 4957440.52

Type of foam used in training: AFFF: Angus Hi-Combat

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AFFF: 5 gallons

Nearest surface water: Brandy Lake, 1/4 to 1/3 mile south

Nearest wetland: Approximately 1/4 mile south

Karst Area: Training site is located in or near a covered karst area

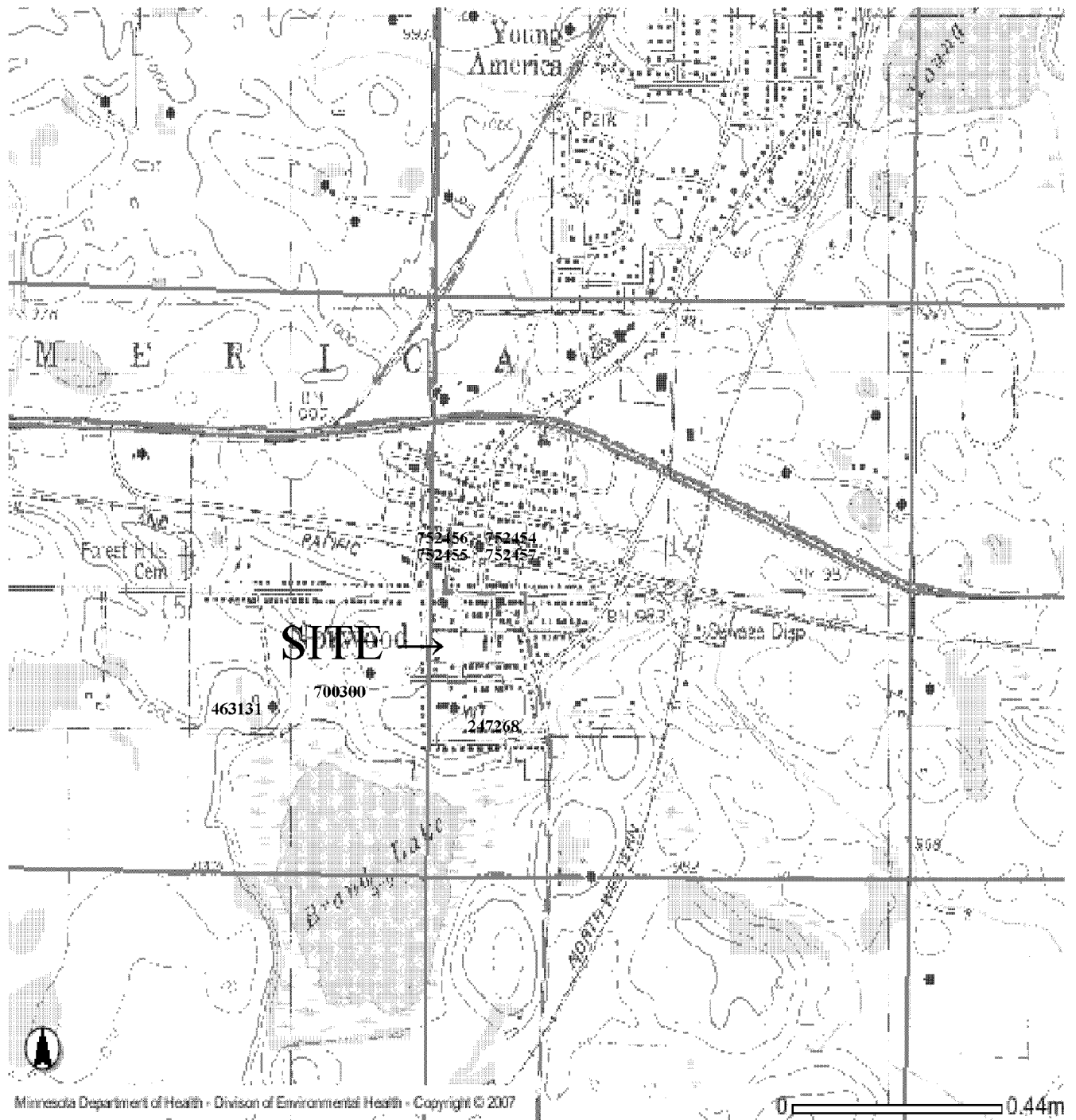
Nearest water well: Less than 1/4 mile south

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Training site located in a SWAA

SITE RANKING: 16

NORWOOD CWI Well Map



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0 0.44m

Norwood What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

- Sites**
-  Deleted State Superfund
 -  Permitted Solid Waste
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 -  Voluntary Investigation & Cleanup
 -  RCRA T&D Facilities
 -  RCRA Investigation & Cleanup
 -  State Assessment

Minnesota Unique Well No.
247268

County Carver
 Quad Norwood
 Quad ID 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 06/23/1992
 Update Date 02/19/2008
 Received Date

Well Name NORWOOD TEST WELL		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 115 26 W 14 CBCCAC Elevation Method		620 ft	620 ft	00/00/1988
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary		
Well Address NORWOOD MN 55368		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From Ft. to Ft.	
		Use Test well		
		Casing Type	Joint No Information	Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.
Geological Material		Casing Diameter Weight Hole Diameter		
CLAY	Color BLACK	Hardness	From	To
CLAY	TAN		0	3
CLAY	GRAY		3	30
CLAY WITH SAND	GRAY		30	50
SAND & GRAVEL	GRAY		50	110
ROCKY CLAY	GRAY		110	115
SAND & GRAVEL	GRAY		115	158
CLAY	GRAY	SOFT	158	165
ROCKY CLAY	GRAY	HARD	165	170
CLAY	GRAY		170	210
ROCKY CLAY	GRAY		210	220
CLAY	GRAY		220	223
ROCKY GRAVEL	GRAY		223	237
CLAY	GRAY		237	240
ROCKY SAND & GRAVEL	GRAY		240	250
CLAY	GRAY		250	257
SAND & GRAVEL	TAN		257	305
CLAY	TAN		305	315
SAND & GRAVEL	TAN		315	320
CLAY WITH ROCKS	ORANGE		320	335
SHALE	WHITE		335	345
ROCK	BROWN	HARD	345	350
ROCK	GREEN	SFT-HRD	350	365
SHALE	GREEN	SOFT	365	373
SANDROCK	BROWN	HARD	373	440
SANDSTONE OFFWHITE			440	450
SANDSTONE SHALE OFF WHITE		HARD	450	460
SANDSTONE SHALE	BLU/WHT	HARD	460	505
SANDSTONE & SHALE BLUE RED PINK			505	520
SANDSTONE & SHALE	GREEN	HARD	520	530
SANDSTONE & SHALE	GRN/PNK	HARD	530	575
SANDSTONE & SHALE	GREEN		575	600
SANDSTONE & SHALE GREEN RED TAN	VARIED		600	605
CREVICED SANDSTONE	GREEN	SOFT	605	620
LOST CIRCULATION				
REMARKS M.G.S. NO. 2885.		Static Water Level		
		ft. from Date Measured		
		PUMPING LEVEL (below land surface)		
		ft. after hrs. pumping g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Public Land Survey - QQQQQ Section		Nearest Known Source of Contamination		
Unique Number Verification Information from owner Date N/A		_feet _direction _type		
System UTM - Nad83, Zone15, Meters X: 426531 Y: 4957263		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number HP Volts		
		Length of drop Pipe ft. Capacity g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
Cuttings Yes		Praught M. Well Co. 86576		
First Bedrock Cretaceous,Undif. Aquifer		License Business Name Lic. Or Reg. No. Name of Driller		
Last Strat Franconia-Ironton-Galesvill Depth to Bedrock 320 ft.				
County Well Index Online Report		247268		Printed 9/24/2008 HE-01205-07

Minnesota Unique Well No.

463131

County Quad ID Carver Norwood 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/01/1991
 Update Date 06/15/2007
 Received Date

Well Name ARETZ, BRENT		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 115 26 W 15 DBDCAD Elevation Method		168 ft.	168 ft.	03/21/1991	
CALC FROM 2-FOOT COUNTY DEM		Drilling Method Non-specified Rotary			
Well Address 815 ELM ST NORWOOD MN 55368 Geological Material Color Hardness From To TOPSOIL BLACK SOFT 0 3 CLAY YELLOW SOFT 3 15 CLAY BLUE SOFT 15 160 SAND		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Bentonite	From -ft. to Ft.		
		Use Domestic			
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.			
		Casing Diameter	Weight	Hole Diameter	
		4 in. to 163 ft.	lbs./ft.	8 in. to 168 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type stainless steel			
		Diameter	Slot/Gauze	Length	Set Between
		2	18	5	163 ft. and 168 ft.
Static Water Level 90 ft. from Land surface Date Measured 03/21/1991					
PUMPING LEVEL (below land surface) 168 ft. after 0.5 hrs. pumping 40 g.p.m.					
Well Head Completion Pitless adapter manufacturer MONITOR Model					
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade					
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Address verification Date 02/27/2007 System UTM - Nad83, Zone15, Meters X: 425919 Y: 4957268		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Grout Material: Neat Cement		from 0 to 30 ft.	0.25 yrds.
		Grout Material: Bentonite		from 30 to 163 ft.	0.5 yrds.
		Nearest Known Source of Contamination 60 feet E direction Septic tank/drain field type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 03/21/1991					
Manufacturer's name ELINT & WALLING Model number HP 0.75 Volts 220					
Length of drop Pipe 108 ft. Capacity 11 g.p.m. Type Submersible Material Galvanized					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification					
Braunwarth Well Co.		10068	BRAUNWARTH, M		
License Business Name		Lic. Or Reg. No.	Name of Driller		
First Bedrock		Aquifer	Quat. Buried Artes. Aquifer		
Last Strat Sand		Depth to Bedrock	ft		
County Well Index Online Report		463131	Printed 9/24/2008		
			HE-01205-07		

Minnesota Unique Well No.
700300

County: Carver
 Quad: Norwood
 Quad ID: 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/19/2006
 Update Date: 08/06/2007
 Received Date: 01/26/2006

<p>Well Name CITY OF NORWOOD</p> <p>Township Range Dir Section Subsections Elevation 115 26 W 15 DACAAD Elevation Method 989 ft. 7.5 minute topographic map (+/- 5 feet)</p> <p>Well Address BALL FIELD NORWOOD MN 55368</p> <table border="0" style="width:100%;"> <tr> <td style="width:30%;">Geological Material</td> <td style="width:15%;">Color</td> <td style="width:15%;">Hardness</td> <td style="width:10%;">From</td> <td style="width:10%;">To</td> </tr> <tr> <td>TOP SOIL</td> <td>BLACK</td> <td></td> <td>0</td> <td>4</td> </tr> <tr> <td>SAND</td> <td>GRY/BRN</td> <td></td> <td>4</td> <td>9</td> </tr> <tr> <td>SANDY CLAY & SAND MIX</td> <td>GRAY</td> <td></td> <td>9</td> <td>17</td> </tr> <tr> <td>SAND CLAY</td> <td>GRAY</td> <td>SOFT</td> <td>17</td> <td>44</td> </tr> <tr> <td>SAND & GRAVEL & CLAY LAYERS</td> <td>GRAY</td> <td></td> <td>44</td> <td>49</td> </tr> <tr> <td>SANDY CLAY</td> <td>GRAY</td> <td></td> <td>49</td> <td>82</td> </tr> <tr> <td>SANDY CLAY</td> <td>GRAY</td> <td>SOFT</td> <td>82</td> <td>87</td> </tr> <tr> <td>SANDY CLAY, COAL</td> <td>GRAY</td> <td></td> <td>87</td> <td>102</td> </tr> <tr> <td>SANDY CLAY</td> <td>GRAY</td> <td>SOFT</td> <td>102</td> <td>107</td> </tr> <tr> <td>SANDY CLAY & COAL & PEBBLES</td> <td>GRAY</td> <td>HARD</td> <td>107</td> <td>116</td> </tr> <tr> <td>SAND</td> <td>VARIED</td> <td></td> <td>116</td> <td>119</td> </tr> <tr> <td>SANDY CLAY</td> <td>GRAY</td> <td></td> <td>119</td> <td>123</td> </tr> <tr> <td>GRAVEL</td> <td>VARIED</td> <td></td> <td>123</td> <td>130</td> </tr> <tr> <td>SANDY CLAY & LIMESTONE & SAND LAYE</td> <td>GRAY</td> <td></td> <td>130</td> <td>201</td> </tr> <tr> <td>SANDY CLAY & LIMESTONE & SAND LAY</td> <td>GREEN</td> <td></td> <td>201</td> <td>232</td> </tr> <tr> <td>SANDY CLAY & SAND LAYERS</td> <td>BROWN</td> <td></td> <td>232</td> <td>247</td> </tr> <tr> <td>SAND</td> <td>GRAY</td> <td></td> <td>247</td> <td>276</td> </tr> <tr> <td>ROCK CLAY & SAND LAYERS</td> <td>GRAY</td> <td></td> <td>276</td> <td>292</td> </tr> <tr> <td>SANDSTONE</td> <td>WHITE</td> <td></td> <td>292</td> <td>300</td> </tr> </table>	Geological Material	Color	Hardness	From	To	TOP SOIL	BLACK		0	4	SAND	GRY/BRN		4	9	SANDY CLAY & SAND MIX	GRAY		9	17	SAND CLAY	GRAY	SOFT	17	44	SAND & GRAVEL & CLAY LAYERS	GRAY		44	49	SANDY CLAY	GRAY		49	82	SANDY CLAY	GRAY	SOFT	82	87	SANDY CLAY, COAL	GRAY		87	102	SANDY CLAY	GRAY	SOFT	102	107	SANDY CLAY & COAL & PEBBLES	GRAY	HARD	107	116	SAND	VARIED		116	119	SANDY CLAY	GRAY		119	123	GRAVEL	VARIED		123	130	SANDY CLAY & LIMESTONE & SAND LAYE	GRAY		130	201	SANDY CLAY & LIMESTONE & SAND LAY	GREEN		201	232	SANDY CLAY & SAND LAYERS	BROWN		232	247	SAND	GRAY		247	276	ROCK CLAY & SAND LAYERS	GRAY		276	292	SANDSTONE	WHITE		292	300	<p>Well Depth: 300 ft. Depth Completed: 300 ft. Date Well Completed: 11/04/2003</p> <p>Drilling Method --</p> <p>Drilling Fluid: -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.</p> <p>Use Abandoned Status Sealed</p> <p>Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.</p> <table border="0" style="width:100%;"> <tr> <td style="width:30%;">Casing Diameter</td> <td style="width:30%;">Weight</td> <td style="width:40%;">Hole Diameter</td> </tr> <tr> <td></td> <td></td> <td>6.25 in. to 300 ft.</td> </tr> </table> <p>Open Hole from ft. to ft. Screen Make Type</p> <table border="0" style="width:100%;"> <tr> <td style="width:20%;">Diameter</td> <td style="width:20%;">Slot/Gauze</td> <td style="width:20%;">Length</td> <td style="width:40%;">Set Between</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Static Water Level ft. from Date Measured</p> <p>PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p> <p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Grout Material: High solids bentonite from to 300 ft. 20 bags</p> <p>Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material</p> <p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Well Contractor Certification <u>Ltp Enterprises Inc.</u> 91636 GRIMM G. License Business Name Lic. Or Reg. No. Name of Driller</p>	Casing Diameter	Weight	Hole Diameter			6.25 in. to 300 ft.	Diameter	Slot/Gauze	Length	Set Between				
Geological Material	Color	Hardness	From	To																																																																																																															
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<p>REMARKS USE: ENVIRON. BCRE HOLE</p> <p>Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from owner Date 07/16/2007 System UTM - Nad83, Zone15, Meters X: 426247 Y: 4957361</p>	<p>First Bedrock Cretaceous,Undiff. Aquifer Last Strat Cretaceous,Undiff. Depth to Bedrock 292 ft.</p>																																																																																																																		
<p>County Well Index Online Report</p>	<p>700300</p>	<p>Printed 9/24/2008 HE-01205-07</p>																																																																																																																	

Minnesota Unique Well No.

752454

County Quad Carver Norwood
 Quad ID 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 12/13/2007
 Update Date 08/15/2008
 Received Date 08/09/2007

Well Name MW-1		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 115 26 W 14 BCCADB Elevation Method		20 ft.	14.5 ft.	06/04/2007		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address NORWOOD MN 55368 Geological Material CONCRETE FILL BROWN SANDY CLAY Color GRAY BROWN Hardness HARD MEDIUM From To 0 2 2 20		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 4.5 ft.		lbs./ft.	8.25 in. to 20 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	10	4.5 ft. and 14.5 ft.
Static Water Level						
7 ft. from Land surface Date Measured 06/04/2007						
PUMPING LEVEL (below land surface)						
ft. after hrs. pumping g.p.m.						
Well Head Completion						
Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS						
WELL LOCATION: SW OF N. MORSE ST. & W. RAILCAD ST., NORWOOD, MN 55368						
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Grout Material: CONCRETE from to 4 ft. 1.5 bags						
Located Minnesota Department of Health Method GPS SA Off (averaged)						
Unique Number Verification N/A Date 08/23/2007						
System UTM - Nad83, Zone15, Meters X: 426615 Y: 4957718						
Nearest Known Source of Contamination						
0 feet direction type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed						
Manufacturer's name Model number HP Volts						
Length of drop Pipe ft. Capacity g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
First Bedrock		Aquifer	1767	LENZMEIER D.		
Last Strat		Depth to Bedrock ft	Lic. Or Reg. No.	Name of Driller		
County Well Index Online Report		752454	Printed 9/24/2008			
			HE-01206-07			

Minnesota Unique Well No.

752455

County Quad ID Carver Norwood 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103I

Entry Date 12/13/2007
Update Date 08/15/2008
Received Date 08/09/2007

Well Name MW-2		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 115 26 W 14 BCCADC Elevation Method 990 ft. Calc from DEM (USGS 7.5 m or equiv.)		15 ft.	14 ft.	06/04/2007	
Drilling Method Auger (non-specified)					
Well Address NORWOOD MN 55368 Geological Material SANDY CLAY Color BROWN Hardness MEDIUM From 0 To 15		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Monitor well			
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter	Weight	Hole Diameter	
		2 in. to 4 ft.	lbs./ft.	8.25 in. to 15 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type plastic			
		Diameter	Slot/Gauze	Length	Set Between
		2	10	10	4 ft. and 14 ft.
Static Water Level 7 ft. from Land surface Date Measured 06/04/2007					
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
REMARKS MW-2 WELL LOCATION: SW OF N. MORSE ST. & W. RAILROAD ST., NORWOOD, MN 55368		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Department of Health Method GPS SA Off (averaged) Unique Number Verification N/A Date 08/23/2007 System UTM - Nad83, Zone15, Meters X: 426607 Y: 4957710		Grout Material: CONCRETE from to 4 ft. 1.5 bags			
Nearest Known Source of Contamination 0 feet direction type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification Bergerson Caswell, Inc. 1767 LENZMEIER, D. License Business Name Lic. Or Reg. No. Name of Driller					
First Bedrock Last Strat		Aquifer Depth to Bedrock ft.			
County Well Index Online Report		752455		Printed 9/24/2008 HE-01206-07	

Minnesota Unique Well No.
752456

County: Carver
 Quad: Norwood
 Quad ID: 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 12/13/2007
 Update Date: 08/15/2008
 Received Date: 08/09/2007

Well Name MW-3		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 115 26 W 14 BCCACA Elevation Method		16 ft.	15 ft.	06/04/2007		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address NORWOOD MN 55368 Geological Material CONCRETE FILL CLAY Color GRAY GRAY Hardness HARD MEDIUM From To 0 4 4 16		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 5 ft.		lbs./ft.	8.25 in. to 16 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	10	5 ft. and 15 ft.
Static Water Level						
8 ft. from Land surface Date Measured 06/04/2007						
PUMPING LEVEL (below land surface)						
ft. after hrs. pumping g.p.m.						
Well Head Completion						
Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
WELL LOCATION: SW OF N. MORSE ST. & W. RAILCAD ST., NORWOOD, MN 55368 MW-3		Grout Material: CONCRETE from to 4 ft. 1.5 bags				
Located Minnesota Department of Health		Method GPS SA Off (averaged)				
Unique Number Verification N/A		Date 08/23/2007				
System UTM - Nad83, Zone15, Meters		X: 426600 Y: 4957725				
Nearest Known Source of Contamination						
0 feet direction type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed						
Manufacturer's name Model number HP Volts						
Length of drop Pipe ft. Capacity g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
First Bedrock		Bergerson Caswell, Inc.	1767	LENZMEIER, D.		
Last Strat		License Business Name	Lic. Or Reg. No.	Name of Driller		
Aquifer						
Depth to Bedrock ft						
County Well Index Online Report		752456		Printed 9/24/2008		
				HE-01205-07		

Minnesota Unique Well No.
752457

County: Carver
 Quad: Norwood
 Quad ID: 106C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 12/13/2007
 Update Date: 08/15/2008
 Received Date: 08/09/2007

Well Name MW-4		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 115 26 W 14 BCCADC Elevation Method		15 ft.	14 ft.	06/11/2007		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address NORWOOD MN 55368 Geological Material Color Hardness From To SILT BLACK MEDIUM 0 2 SILTY CLAY GRY/BRN MEDIUM 2 15		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Plastic Joint Threaded Drive Shoes? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 4 ft.		lbs./ft.	8.25 in. to 15 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type plastic				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	10	4 ft. and 14 ft.
Static Water Level						
8 ft. from Land surface Date Measured 06/11/2007						
PUMPING LEVEL (below land surface)						
ft. after hrs. pumping g.p.m.						
Well Head Completion						
Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
WELL LOCATION: SW OF N. MORSE ST. & W. RAILCAD ST., NORWOOD, MN 55368 MW-4		Grout Material: CONCRETE from to 4 ft. 1.5 bags				
Located Minnesota Department of Health		Method GPS SA Off (averaged)				
Unique Number Verification N/A		Date 08/23/2007				
System UTM - Nad83, Zone15, Meters		X: 426613 Y: 4957708				
Nearest Known Source of Contamination						
0 feet direction type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed						
Manufacturer's name Model number HP Volts						
Length of drop Pipe ft. Capacity g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
First Bedrock		Bergerson Caswell Inc.		1767		
Last Strat		License Business Name		HOLMEN G.		
Aquifer		Lic. Or Reg. No.		Name of Driller		
Depth to Bedrock ft						
County Well Index Online Report		752457		Printed 9/24/2008 HE-01206-07		

- **Perham**

SITE SUMMARY

Site Name: Perham

Fire Department: Perham Fire Department
525 West Main
Perham, MN 56573

Site Contact: Tracy Schmidt, Fire Chief
218-346-4402
fire@cityofperham.com

Training Location: Near parking entrance of Prairie Winds Middle School
480 Coney Street, Perham

Training Location Coordinates (X,Y): 30264.55, 5162411.87

Type of foam used in training: Class B AFFF: various brands
Class A: various brands
Other: POK system with foam sticks

Foam training frequency: Semi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer

Annual foam use: Class B AFFF: 10 to 20 gallons
Class A: 10 to 20 gallons
Other: ~ a case of sticks (1 stick = ~5 gallons)

Nearest surface water: Unnamed ponds located 1/4 to 1/2 mile southwest

Nearest wetland: Approximately 1/4 to 1/2 mile southwest

Karst Area: Site is not located in a karst area.

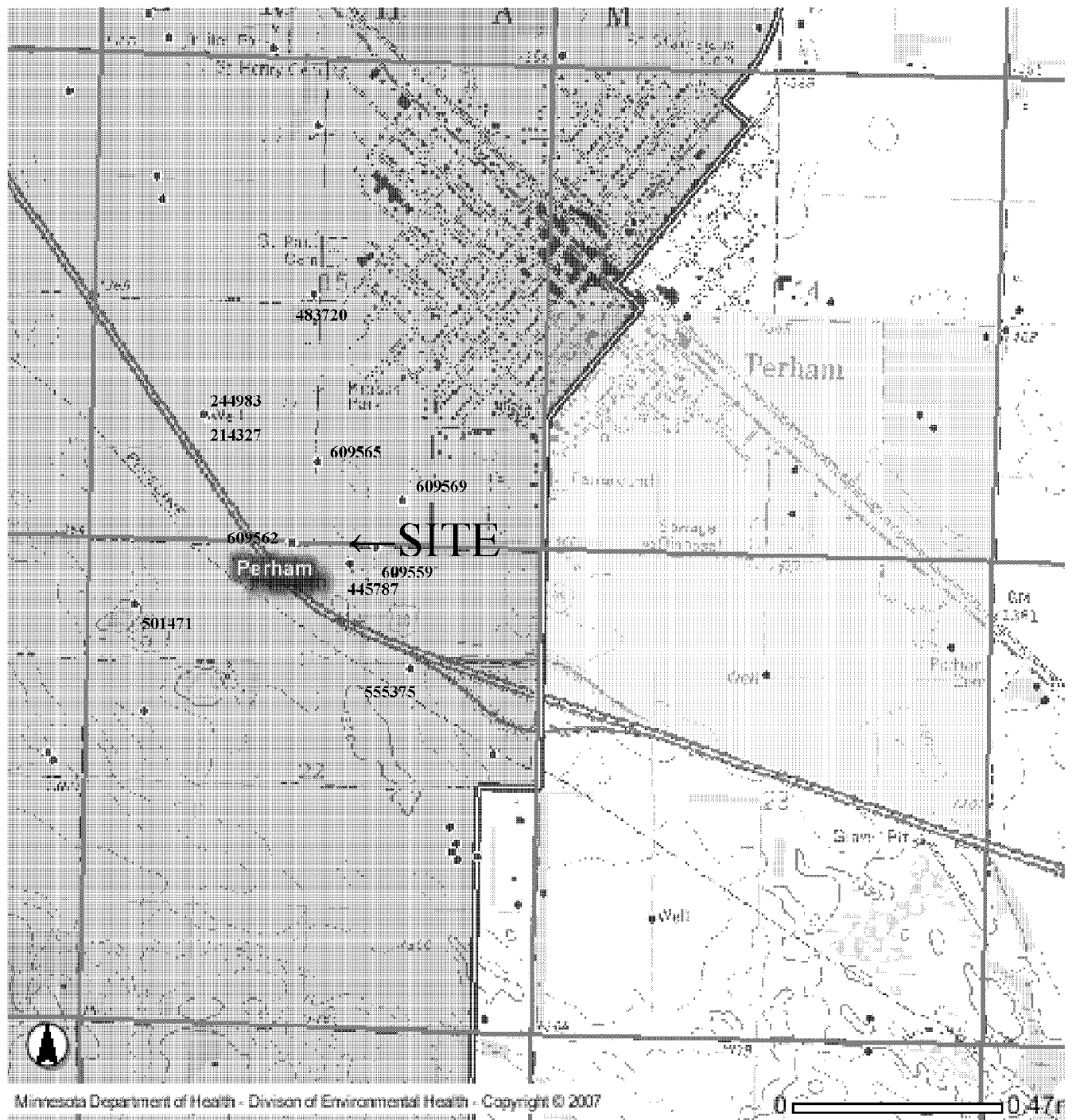
Nearest water well: Less than 1/4 mile to the south, southeast and northeast

Nearest Wellhead Protection Area: Site is located in a WPA

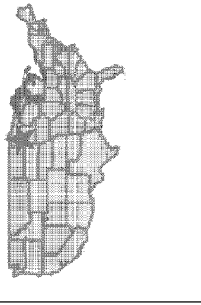
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 22

PERHAM CWI Well Map



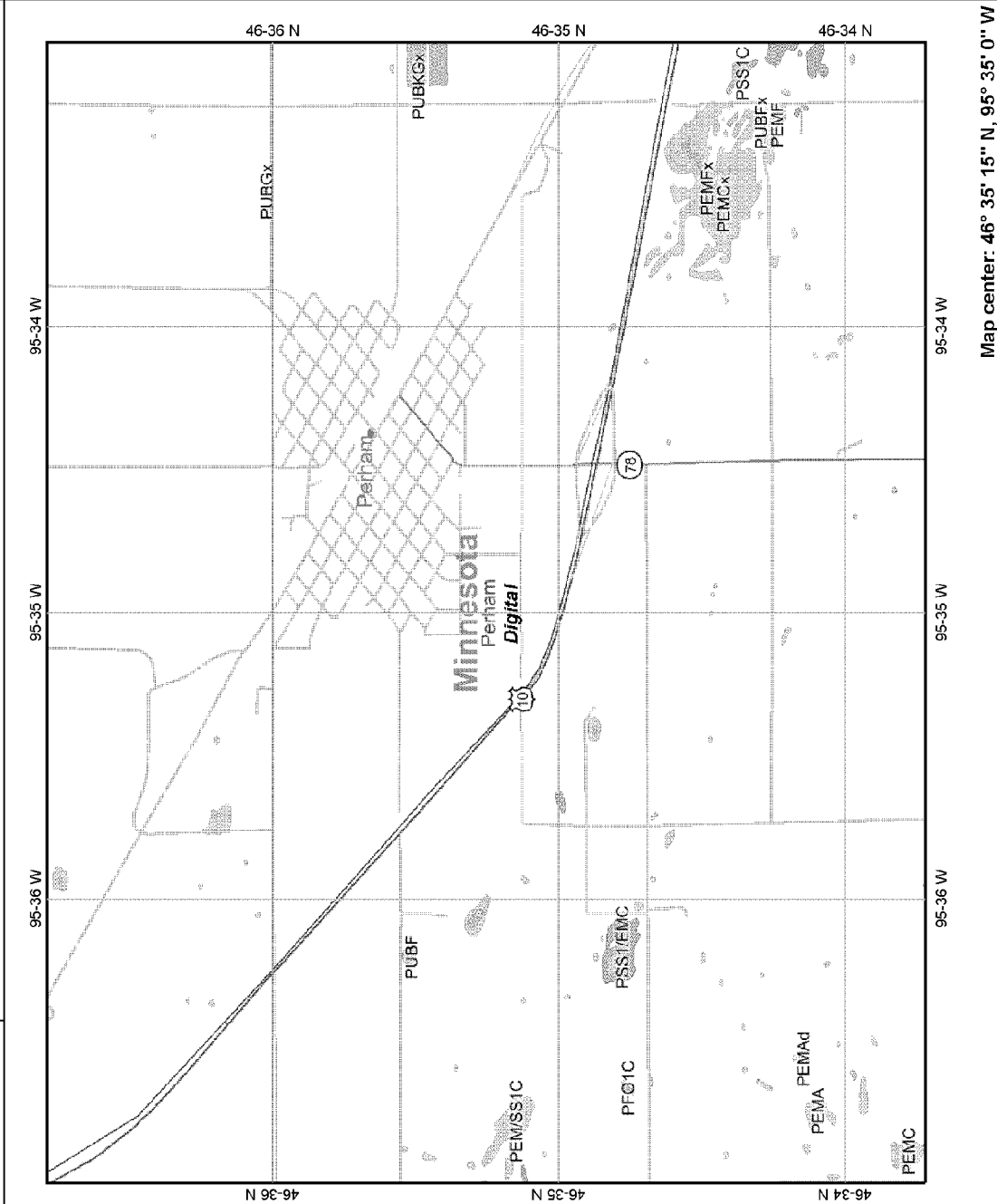
Perham Wetland Map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- Lower 48 Available Wetland Data
 - Non-Digital
 - Digital
 - No Data
 - Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:39,806



Map center: 46° 35' 15" N, 95° 35' 0" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Perham What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfills
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.

214327

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/17/1988
 Update Date: 10/07/1998
 Received Date:

Well Name MANTHE, ELWYN		Well Depth	Depth Completed	Date Well Completed																														
Township Range Dir Section Subsections Elevation 136 39 W 15 CACCCC Elevation Method		102 ft.	102 ft.	01/17/1969																														
7.5 minute topographic map (+/- 5 feet)		Drilling Method --																																
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>BROWN</td> <td></td> <td>0</td> <td>25</td> </tr> <tr> <td>CLAY</td> <td></td> <td>SOFT</td> <td>25</td> <td>35</td> </tr> <tr> <td>CLAY</td> <td></td> <td>HARD</td> <td>35</td> <td>45</td> </tr> <tr> <td>COARSE SAND</td> <td></td> <td></td> <td>45</td> <td>70</td> </tr> <tr> <td>FINE SAND</td> <td></td> <td></td> <td>70</td> <td>102</td> </tr> </tbody> </table>		Geological Material	Color	Hardness	From	To	SAND	BROWN		0	25	CLAY		SOFT	25	35	CLAY		HARD	35	45	COARSE SAND			45	70	FINE SAND			70	102	Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		Geological Material	Color	Hardness	From	To																												
		SAND	BROWN		0	25																												
		CLAY		SOFT	25	35																												
		CLAY		HARD	35	45																												
		COARSE SAND			45	70																												
		FINE SAND			70	102																												
		--	From -ft. to Ft.																															
		Use Irrigation																																
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.																																
Casing Diameter		Weight	Hole Diameter																															
12 in. to 56 ft.		lbs./ft.																																
Open Hole from ft. to ft.																																		
Screen YES Make Type																																		
Diameter		Slot/Gauze	Length	Set Between																														
12		100	46	56 ft. and 102 ft.																														
Static Water Level																																		
24 ft. from Land surface Date Measured 01/17/1969																																		
PUMPING LEVEL (below land surface)																																		
44 ft. after hrs. pumping 1200 g.p.m.																																		
Well Head Completion																																		
Pitless adapter manufacturer Model																																		
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade																																		
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																		
<p style="text-align: center;">NO REMARKS</p> <p>Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)</p> <p>Unique Number Verification Other, note in remarks Date N/A</p> <p>System UTM - Nad83, Zone15, Meters X: 301553 Y: 5162783</p>		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																
		Nearest Known Source of Contamination																																
		__feet __direction __type																																
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed																																
		Manufacturer's name Model number __ HP __ Volts																																
		Length of drop Pipe __ft. Capacity __g.p.m. Type Material																																
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																
		Well Contractor Certification																																
First Bedrock		Lic. Or Reg. No.																																
Last Strat Sand		Name of Driller																																
Aquifer Quat. Buried Artes. Aquifer																																		
Depth to Bedrock ft																																		
County Well Index Online Report		214327		Printed 9/2/2008 HE-01205-07																														

Minnesota Unique Well No.
244983

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 01/02/1992
 Update Date: 03/11/2005
 Received Date:

Well Name: R.D. OFFUTT COMPANY Township Range Dir Section Subsections Elevation: 136 39 W 15 1366 ft. Calc from DEM (USGS 7.5 m or equiv.) Elevation Method:	Well Depth: ft. Depth Completed: ft. Date Well Completed: Drilling Method: --
Geological Material Color Hardness From To	Drilling Fluid: -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.
	Use Irrigation:
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.
	Casing Diameter Weight Hole Diameter
	Open Hole from ft. to ft.
	Screen Make Type
	Diameter Slot/Gauze Length Set Between
	Static Water Level ft. from Date Measured
	PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.
	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)
NO REMARKS Located: Minnesota Department of Health Method: GPS Differentially Corrected Unique Number Verification: N/A Date: N/A System: UTM - Nad83, Zone15, Meters X: 301545 Y: 5182789	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
First Bedrock Last Strat Aquifer Depth to Bedrock ft.	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Pump <input checked="" type="checkbox"/> Not Installed Date Installed: Manufacturer's name Model number HP Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material
	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
	Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Well Contractor Certification License Business Name Lic. Or Reg. No. Name of Driller	
County Well Index Online Report 244983 Printed 9/2/2008 <small>HE-01205-07</small>	

Minnesota Unique Well No.

445787

County: Perham
 Quad: 237D
 Offer Tail: 1369 ft.
 Elevation Method: 7.5 minute topographic map (+/- 5 feet)

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 01/17/1991
 Update Date: 10/08/1998
 Received Date:

Well Name LEIN, DAVE		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		118 ft.	99 ft.	09/13/1988
136 39 W 22 ABBACB Elevation Method		Drilling Method Non-specified Rotary		
		Drilling Fluid Revert	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		Use Domestic		
		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.		
Well Address		Casing Diameter	Weight	Hole Diameter
PERHAM MN 56573		4 in. to 94 ft.	lbs./ft.	6 in. to 118 ft.
Geological Material		Open Hole from ft. to ft.		
SAND AND GRAVEL	Color YELLOW	Hardness SOFT	From 0	To 30
CLAY	BLUE	SOFT	30	38
CLAY & SAND STRIPS	YELLOW	SOFT	38	43
SAND	YELLOW	SOFT	43	65
CLAY	BLUE	SOFT	65	68
SAND	GRAY	SOFT	68	81
CLAY	BLUE	SOFT	81	88
SAND	GRAY	SOFT	88	93
SAND	GRAY	SOFT	93	98
SAND	GRAY	SOFT	98	99
CLAY	BLUE	SOFT	99	105
SAND	GRAY	SOFT	105	118
		Screen YES Make JOHNSON Type stainless steel		
		Diameter	Slot/Gauze	Length
		3.8	12	5
		Set Between 94 ft. and 99 ft.		
		Static Water Level		
		27 ft. from Land surface Date Measured 09/13/1988		
		PUMPING LEVEL (below land surface)		
		50 ft. after hrs. pumping 100 g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer MONITOR Model 6FT BURY		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Grout Material: Cuttings from to ft.		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination		
Unique Number Verification Name on mailbox Date N/A		75 feet North East direction Septic tank/drain field type		
System UTM - Nad83, Zone15, Meters X: 302065 Y: 5162290		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed 09/00/1988		
		Manufacturer's name AERMATOR Model number SD-12-75 HP 0.75 Volts 230		
		Length of drop Pipe 72 ft. Capacity 30 g.p.m. Type Submersible Material Galvanized		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
First Bedrock		Cichy R.m. Well Co.	56154	CICHY, R.
Last Strat Sand-gray		Aquifer Quat. Buried Artes. Aquifer	Lic. Or Reg. No.	Name of Driller
Depth to Bedrock ft.				
County Well Index Online Report		445787	Printed 9/2/2008	
		HE-01205-07		

Minnesota Unique Well No.

483720

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 09/05/1997
 Update Date: 10/26/2007
 Received Date:

Well Name: R.D. OFFERT CO.		Well Depth: 34 ft.	Depth Completed: 33 ft.	Date Well Completed: 06/28/1994
Township Range Dir Section Subsections Elevation: 136 39 W 15 BDDD		Elevation Method: Calc from DEM (USGS 7.5 m or equiv.)		
Drilling Method: Auger (non-specified)				
Drilling Fluid: --		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
From -ft. to Ft.				
Use: Monitor well				
Casing Type: Steel (black or low carbon) Joint: Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
Casing Diameter: 2 in. to 28 ft.		Weight: lbs./ft.	Hole Diameter: 6 in. to 34 ft.	
Open Hole: from ft. to ft.				
Screen YES Make Type: stainless steel				
Geological Material		Color	Hardness	From To
TOPSOIL				0 2
FINE GRAINED SAND		BROWN		2 8
SAND W/ GRAVEL		BROWN		8 16
FINE GRAINED SAND		BROWN		16 20
SAND & GRAVEL		BROWN		20 31
GRAVEL		GRAY		31 33
FINE SAND		GRY/BRN		33 34
Static Water Level: 22 ft. from Land surface Date Measured: 06/28/1994				
PUMPING LEVEL (below land surface): ft. after hrs. pumping g.p.m.				
Well Head Completion: Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Grout Material: Bentonite from 21 to 26 ft. 0.5 bags				
Grout Material: CONCRETE from to 21 ft. 5 bags				
Nearest Known Source of Contamination: _feet _direction _type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP Volts				
Length of drop Pipe ft. Capacity g.p.m. Type Material				
Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
U.S. Geol Survey		M0113	ROSEMORE, D.	
License Business Name		Lic. Or Reg. No.	Name of Driller	
County Well Index Online Report		483720	Printed 9/2/2008	
			HE-01205-07	

Minnesota Unique Well No.
501471

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 01/02/1992
 Update Date: 12/29/2004
 Received Date:

Well Name TOBKINS, NEIL		Well Depth	Depth Completed	Date Well Completed																				
Township Range Dir Section Subsections Elevation 136 39 W 22 BBADCD Elevation Method		73 ft.	73 ft.	04/10/1989																				
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Non-specified Rotary																						
<table border="1"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td>TAN</td> <td>SOFT</td> <td>0</td> <td>10</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>10</td> <td>55</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>55</td> <td>73</td> </tr> </tbody> </table>		Geological Material	Color	Hardness	From	To	SAND	TAN	SOFT	0	10	SAND	BROWN	SOFT	10	55	SAND	BROWN	SOFT	55	73	Drilling Fluid Bentonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From Ft. to Ft.	
		Geological Material	Color	Hardness	From	To																		
		SAND	TAN	SOFT	0	10																		
		SAND	BROWN	SOFT	10	55																		
		SAND	BROWN	SOFT	55	73																		
		Use Irrigation		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.																				
		Casing Diameter		Weight	Hole Diameter																			
		10 in. to 63 ft.		lbs./ft.	10 in. to 72 ft.																			
		Open Hole from ft. to ft.		Screen YES Make JOHNSON Type stainless steel																				
		Diameter		Slot/Gauze	Length	Set Between																		
10		100	10	63 ft. and 73 ft.																				
Static Water Level		10 ft. from Land surface Date Measured 04/10/1989																						
PUMPING LEVEL (below land surface)		45 ft. after hrs. pumping 300 g.p.m.																						
Well Head Completion		Pitless adapter manufacturer Model																						
<input checked="" type="checkbox"/> Casing Protection		<input checked="" type="checkbox"/> 12 in. above grade																						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																								
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																						
Located Minnesota Geological Survey Method GPS Differentially Corrected		Grout Material: Bentonite from 0 to 55 ft.																						
Unique Number Verification Other, note in remarks Date N/A		Nearest Known Source of Contamination _feet _direction _type																						
System UTM - Nad83, Zone15, Meters X: 301298 Y: 5162156		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																						
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed																						
		Manufacturer's name Model number __ HP __ Volts																						
		Length of drop Pipe __ft. Capacity __g.p.m. Type Material																						
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																						
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																						
First Bedrock		Well Contractor Certification																						
Last Strat Sand-brown		Ingeside Engr. 27355 DEHN, D.																						
Aquifer Quat. Water Table Aquifer		License Business Name Lic. Or Reg. No. Name of Driller																						
Depth to Bedrock ft.																								
County Well Index Online Report		501471		Printed 9/2/2008 HE-01205-07																				

Minnesota Unique Well No.
555375

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 07/12/1995
 Update Date: 10/08/1998
 Received Date:

Well Name		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 136 39 W 22 ACAABA Elevation Method		165 ft.	159 ft.	05/25/1995		
7.5 minute topographic map (+/- 5 feet)		Drilling Method Non-specified Rotary				
Well Address RR 3 BOX 27H PERHAM MN 56573 Geological Material Color Hardness From To SAND AND CLAY STIPS YELLOW SOFT 0 58 SAND YELLOW SOFT 58 88 SAND GRAY SOFT 88 121 CLAY BLUE MEDIUM 121 132 SAND YELLOW SOFT 132 138 SAND YELLOW SOFT 138 148 SAND GRAY SOFT 148 161 CLAY BLUE HARD 161 165		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Bentonite	From -ft. to Ft.			
		Use Domestic				
		Casing Type Plastic Joint Glued Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		4 in. to 155 ft.		lbs./ft.	7 in. to 30 ft.	
					6 in. to 165 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make JOHNSON Type stainless steel				
		Diameter		Slot/Gauze	Length	Set Between
3.8		10	4	155 ft. and 159 ft.		
Static Water Level						
22 ft. from Land surface Date Measured 05/25/1995						
PUMPING LEVEL (below land surface)						
45 ft. after hrs. pumping 100 g.p.m.						
Well Head Completion						
Pitless adapter manufacturer MAASS Model 1.25						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Tag on well Date N/A System UTM - Nad83, Zone15, Meters X: 302281 Y: 5161941		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Grout Material: Bentonite from 0 to 30 ft.				
		Nearest Known Source of Contamination				
		70 feet S direction Septic tank/drain field type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 05/30/1995						
Manufacturer's name AERMATOR Model number 5T-12-50 HP 0.5 Volts 230						
Length of drop Pipe 60 ft. Capacity 15 g.p.m. Type Submersible Material Plastic						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
Cichy R.m. Well Co.		56154	CICHY, R.			
License Business Name		Lic. Or Reg. No.	Name of Driller			
First Bedrock		Aquifer	Quat.	Buried Artes. Aquifer		
Last Strat Clay-gray		Depth to Bedrock	ft.			
County Well Index Online Report		555375	Printed 9/2/2008 HE-01205-07			

Minnesota Unique Well No.
609559

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 07/13/1999
 Update Date: 07/12/2004
 Received Date:

Well Name CITY OF PERHAM		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 136 39 W 22 ABABBB Elevation Method		100 ft.	100 ft.	08/12/1998		
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)				
Well Address CONEY RD S PERHAM MN 56573 Geological Material Color Hardness From To FINE SAND - MEDIUM DENSE BROWN 0 9 MEDIUM SAND - MEDIUM DENSE BROWN 9 24 SAND WITH GRAVEL - MEDIUM DENSE BROWN 24 29 FINE SAND - MEDIUM DENSE GRAY 29 34 SILTY SAND - VERY LOOSE TO DENSE GRAY 34 44 SAND W/ SILT - DENSE TO VERY DENSE GRAY 44 96		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Monitor well				
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.				
		Casing Diameter		Weight	Hole Diameter	
		2 in. to 97 ft.		lbs./ft.	4 in. to 95 ft.	
		Open Hole from ft. to ft.				
		Screen YES Make Type steel (non-stainless)				
		Diameter		Slot/Gauze	Length	Set Between
		2		10	3	97 ft. and 100 ft.
Static Water Level						
24 ft. from Land surface Date Measured 08/12/1998						
PUMPING LEVEL (below land surface)						
ft. after hrs. pumping g.p.m.						
Well Head Completion						
Pitless adapter manufacturer Model						
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade						
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Grout Material: Neat Cement from 0 to 93 ft.						
Grout Material: Bentonite from 93 to 95 ft.						
Nearest Known Source of Contamination						
_feet _direction _type						
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed						
Manufacturer's name Model number __ HP __ Volts						
Length of drop Pipe _ft. Capacity _g.p.m. Type Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Well Contractor Certification						
Gme Consultants		MC101	ALDRICH, T.			
License Business Name		Lic. Or Reg. No.	Name of Driller			
First Bedrock		Aquifer	Quat. Water Table	Aquifer		
Last Strat Sand & silt-gray		Depth to Bedrock ft.				
County Well Index Online Report		609559		Printed 9/2/2008 HE-01205-07		

Minnesota Unique Well No.
609562

County: Otter Tail
Quad: Perham
Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
Minnesota Statutes Chapter 103I

Entry Date: 05/25/1999
Update Date: 03/11/2005
Received Date:

<p>Well Name PERHAM, CITY OF Township Range Dir Section Subsections Elevation 1366 ft. 136 39 W 15 CDDDC Elevation Method Calc from DEM (USGS 7.5 m or equiv.)</p>	<p>Well Depth 101 ft. Depth Completed 65 ft. Date Well Completed 08/14/1998 Drilling Method Non-specified Rotary</p>																																																										
<p>Geological Material</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From To</th> </tr> </thead> <tbody> <tr><td>SAND W/ SILT - MEDIUM DENSE</td><td>BROWN</td><td></td><td>0 19</td></tr> <tr><td>SAND, TRACE SILT - DENSE TO LOOSE</td><td>BROWN</td><td></td><td>19 30</td></tr> <tr><td>SILTY CLAYEY SAND - LOOSE TO DENSE</td><td>GRAY</td><td></td><td>30 44</td></tr> <tr><td>FINE SAND - MEDIUM DENSE</td><td>BROWN</td><td></td><td>44 49</td></tr> <tr><td>FINE SAND - DENSE</td><td>BROWN</td><td></td><td>49 59</td></tr> <tr><td>FINE SAND - DENSE</td><td>GRY/BRN</td><td></td><td>59 64</td></tr> <tr><td>SILTY CLAY - STIFF</td><td>GRAY</td><td></td><td>64 79</td></tr> <tr><td>FINE TO COARSE SAND - DENSE</td><td>BROWN</td><td></td><td>79 84</td></tr> <tr><td>FINE TO COARSE SAND - MEDIUM DENSE</td><td>GRAY</td><td></td><td>84 89</td></tr> <tr><td>SILTY CLAY - STIFF TO VERY DENSE</td><td>GRAY</td><td></td><td>89 101</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From To	SAND W/ SILT - MEDIUM DENSE	BROWN		0 19	SAND, TRACE SILT - DENSE TO LOOSE	BROWN		19 30	SILTY CLAYEY SAND - LOOSE TO DENSE	GRAY		30 44	FINE SAND - MEDIUM DENSE	BROWN		44 49	FINE SAND - DENSE	BROWN		49 59	FINE SAND - DENSE	GRY/BRN		59 64	SILTY CLAY - STIFF	GRAY		64 79	FINE TO COARSE SAND - DENSE	BROWN		79 84	FINE TO COARSE SAND - MEDIUM DENSE	GRAY		84 89	SILTY CLAY - STIFF TO VERY DENSE	GRAY		89 101	<p>Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.</p> <p>Use Monitor well</p> <p>Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>2 in. to 62 ft.</td> <td>lbs./ft.</td> <td>4 in. to 65 ft.</td> </tr> </tbody> </table> <p>Open Hole from ft. to ft.</p> <p>Screen YES Make Type stainless steel</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>10</td> <td>3</td> <td>62 ft. and 65 ft.</td> </tr> </tbody> </table> <p>Static Water Level 18 ft. from Land surface Date Measured 08/14/1998</p> <p>PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p>	Casing Diameter	Weight	Hole Diameter	2 in. to 62 ft.	lbs./ft.	4 in. to 65 ft.	Diameter	Slot/Gauze	Length	Set Between	2	10	3	62 ft. and 65 ft.
	Geological Material	Color	Hardness	From To																																																							
	SAND W/ SILT - MEDIUM DENSE	BROWN		0 19																																																							
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2	10	3	62 ft. and 65 ft.																																																								
<p style="text-align: center;">NO REMARKS</p> <p>Located Minnesota Department of Health Method Digitization (Screen) - Map (1:24,000) Unique Number Verification N/A Date 07/09/2004 System UTM - Nad83, Zone15, Meters X: 301858 Y: 5162360</p>	<p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Grout Material: Neat Cement from 0 to 58 ft. Grout Material: Bentonite from 58 to 60 ft.</p> <p>Nearest Known Source of Contamination _feet _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP _ Volts Length of drop Pipe _ft. Capacity _g.p.m Type Material</p>																																																										
	<p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Well Contractor Certification Gme Consultants MC101 ALDRICH, T. License Business Name Lic. Or Reg. No. Name of Driller</p>																																																										
	<p>First Bedrock _____ Aquifer Quat. Buried Artes. Aquifer Last Strat Silt & clay-gray Depth to Bedrock ft.</p>																																																										
<p>County Well Index Online Report</p>	<p style="font-size: 24pt; font-weight: bold;">609562</p>																																																										
<p>Printed 9/2/2008 HE-01205-07</p>																																																											

Minnesota Unique Well No.
609565

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 07/13/1999
 Update Date: 07/12/2004
 Received Date:

Well Name HEART OF THE LAKE ELEM.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 136 39 W 15 CDADAD Elevation Method		100 ft.	100 ft.	03/18/1998	
1369 ft. Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)			
Well Address 810 2ND AV SW PERHAM MN 56573 Geological Material Color Hardness From To FINE TO MED SAND LOOSE TO DENSE BROWN 0 24 SAND WITH SILT MEDIUM DENSE BROWN 24 29 SILTY CLAYEY SAND MEDIUM DENSE BROWN 29 31 FINE TO MEDIUM SAND MEDIUM DENSE BROWN 31 49 SAND WITH SILT DENSE GRAY 49 59 FINE TO MED SAND DENSE GRAY 59 74 FINE SAND DENSE GRAY 74 91 CLAYEY SAND DENSE GRAY 91 94 SAND WITH SILT VERY DENSE GRAY 94 95		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/>	
		No Above/Below ft.		Casing Diameter Weight Hole Diameter	
		2 in. to 97 ft.	lbs./ft.	4 in. to 100 ft.	
		Open Hole from ft. to ft.			
		Screen YES Make Type steel (non-stainless)			
		Diameter	Slot/Gauze	Length Set Between	
		2	10	3 97 ft. and 100 ft.	
		Static Water Level			
		23 ft. from Land surface Date Measured 03/18/1998			
		PUMPING LEVEL (below land surface)			
		ft. after hrs. pumping g.p.m.			
		Well Head Completion			
		Pitless adapter manufacturer Model			
		<input checked="" type="checkbox"/> Casing Protection Y <input checked="" type="checkbox"/> 12 in. above grade			
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)			
NO REMARKS Located Minnesota Department of Health Method Digitization (Screen) - Map (1:24,000) Unique Number Verification N/A Date 07/09/2004 System UTM - Nad83, Zone15, Meters X: 301950 Y: 5162631		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Grout Material: Neat Cement from 0 to 93 ft.			
		Grout Material: Bentonite from 93 to 95 ft.			
		Nearest Known Source of Contamination			
		__feet __direction __type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
		Manufacturer's name Model number HP Volts			
		Length of drop Pipe ft. Capacity g.p.m. Type Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Well Contractor Certification			
		<u>Gme Consultants</u>	<u>MC101</u>	<u>ALDRICH, T.</u>	
		License Business Name	Lic. Or Reg. No.	Name of Driller	
First Bedrock		Aquifer			
Last Strat Sand & silt-gray		Depth to Bedrock ft.			
County Well Index Online Report		609565	Printed 9/2/2008 HE-01205-07		

Minnesota Unique Well No.
609569

County: Otter Tail
 Quad: Perham
 Quad ID: 237D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 07/13/1999
 Update Date: 07/12/2004
 Received Date:

Well Name HEART OF THE LAKES ELEM.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 136 39 W 15 DCDABC Elevation Method		100 ft.	100 ft.	08/11/1998	
Calc from DEM (USGS 7.5 m or equiv.)		Drilling Method Auger (non-specified)			
Well Address 810 2ND AV SW PERHAM MN 56573 Geological Material Color Hardness From To MED SAND LOOSE TO MED DENSE BROWN 0 29 SAND WITH GRAVEL LOOSE BROWN 29 34 SAND BROWN MEDIUM 34 64 SAND WITH GRAVEL DENSE BROWN 64 74 SAND WITH SILT DENSE BROWN 74 93 SAND WITH GRAVEL VERY DENSE BROWN 93 95		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic	Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.		
		Casing Diameter	Weight	Hole Diameter	
		2 in. to 97 ft.	lbs./ft.	8 in. to 29 ft.	
				4 in. to 100 ft.	
		Open Hole	from ft. to ft.		
		Screen YES	Make	Type	
		Diameter	Slot/Gauze	Length	Set Between
		2	10	3	97 ft. and 100 ft.
Static Water Level		24 ft. from Land surface Date Measured 08/10/1998			
PUMPING LEVEL (below land surface)		ft. after hrs. pumping g.p.m.			
Well Head Completion		Pitless adapter manufacturer Model			
<input checked="" type="checkbox"/> Casing Protection Y		<input checked="" type="checkbox"/> 12 in. above grade			
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Department of Health		Method Digitization (Screen) - Map (1:24,000)			
Unique Number Verification N/A		Date 07/09/2004			
System UTM - Nad83, Zone15, Meters		X: 302253 Y: 5162501			
		Nearest Known Source of Contamination _ft. _direction _type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
		Manufacturer's name Model number __ HP __ Volts			
		Length of drop Pipe _ft. Capacity _g.p.m. Type Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock		Well Contractor Certification			
Last Stral Sand & larger-brown		Gme Consultants MC101 ALDRICH, T.			
Aquifer		License Business Name Lic. Or Reg. No. Name of Driller			
Depth to Bedrock ft.					
County Well Index Online Report		609569		Printed 9/2/2008 HE-01205-07	

- **Plymouth**

- County Road 6
 - Dunkirk Lane
- Old Rockford Road

SITE SUMMARY

Site Name: Plymouth - County Road 6

Fire Department: Plymouth Fire Department
3400 Plymouth Blvd.
Plymouth, MN 55447

Site Contact: Rick Kline, Fire Chief
763-509-5121

Training Location: Fire Station 1, 13250 County Road 6, Plymouth

Training Location Coordinates (X,Y): 464699.04, 4982766.14

Type of foam used in training: AFFF: Ansul

Foam training frequency: Semi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: less than 20 gallons
Class A: less than 50 gallons

Nearest surface water: Unnamed ponds 1/4 to 1/2 south

Nearest wetland: 1/2 to 1 mile east

Karst Area: Site is located in a covered karst area

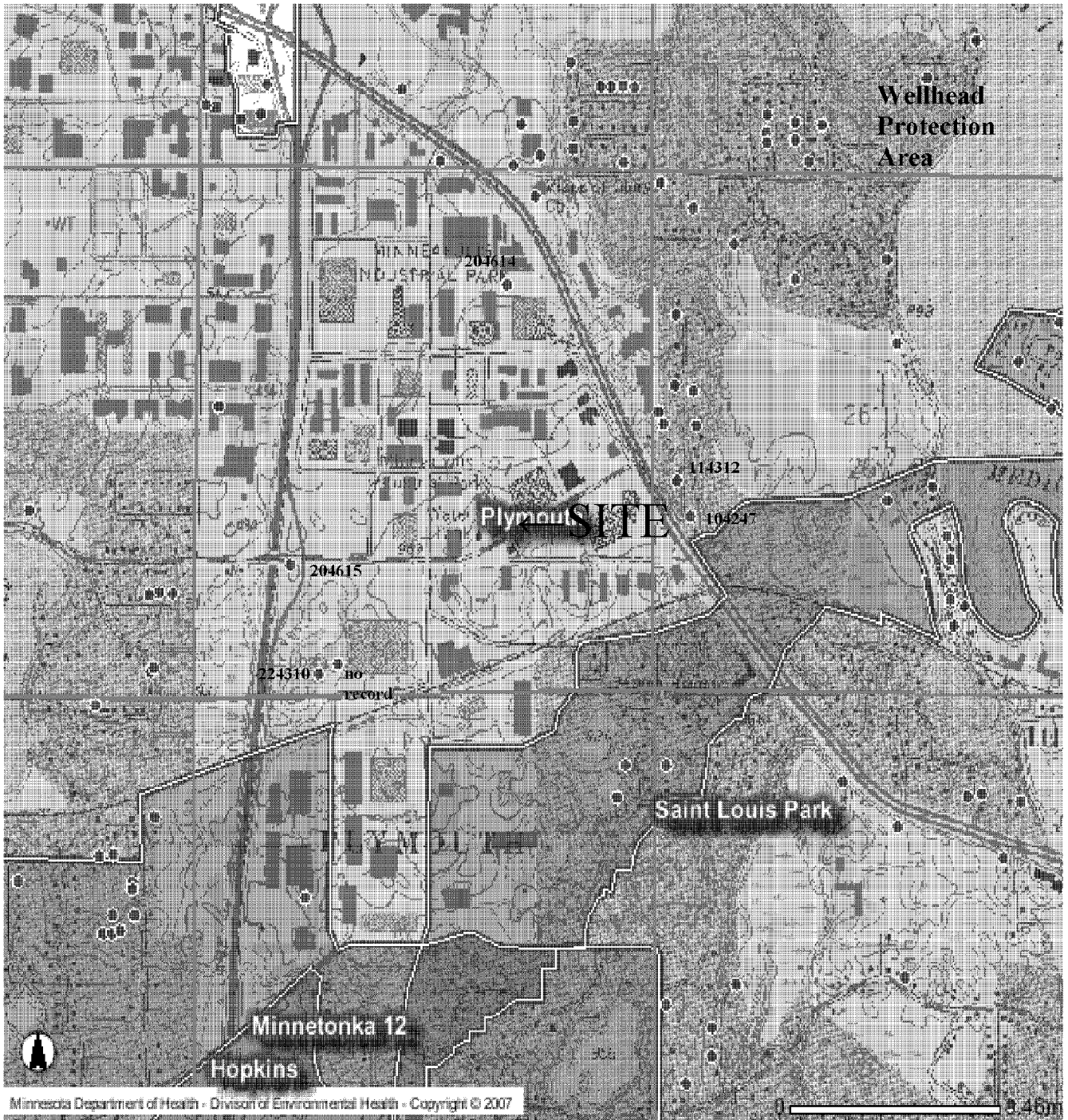
Nearest water well: 1/4 to 1/2 mile east

Nearest Wellhead Protection Area: Training site is located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 12

PLYMOUTH - COUNTY ROAD 6 CWI Well Map



Plymouth Cty Rd 6 What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
104247

County Hennepin
 Quad Hopkins
 Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name AL RANISATE		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 118 22 W 26 CBCACA Elevation Method 954 ft. 7.5 minute topographic map (+/- 5 feet)		90 ft.	90 ft.	06/12/1976		
Drilling Method --						
Well Address 1640 OAKVIEW LA PLYMOUTH MN Geological Material Color Hardness From To SOIL BROWN SOFT 0 3 SAND & GRAVEL BROWN SOFT 3 90		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		--	From -ft. to Ft.			
		Use Domestic				
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.				
		Casing Diameter		Weight	Hole Diameter	
		4 in. to 84 ft.		lbs./ft.		
		Open Hole from ft. to ft.				
		Screen YES Make HOWARD SMITH Type stainless steel				
		Diameter		Slot/Gauze	Length	Set Between
		2		12	6	82 ft. and 88 ft.
Static Water Level 55 ft. from Land surface Date Measured 06/12/1976						
PUMPING LEVEL (below land surface) 56 ft. after hrs. pumping 15 g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS LOCATED BOTH BY ADDRESS VERIFICATION AND BY INFO. FROM NEIGHBOR		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)						
Unique Number Verification Address Date N/A						
System UTM - Nad83, Zone15, Meters X: 465352 Y: 4982814						
Nearest Known Source of Contamination _feet _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name FAIRBANKS Model number 4C-5008 HP 0.5 Volts 220 Length of drop Pipe 63 ft. Capacity 10 g.p.m. Type Submersible Material						
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
First Bedrock		Well Contractor Certification				
Last Strat Sand-brown		Maier Well Co. 19301 License Business Name Lic. Or Reg. No. Name of Driller				
County Well Index Online Report		104247		Printed 9/10/2008 HE-01205-07		

Minnesota Unique Well No.
114312

County Hennepin
 Quad Hopkins
 Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name JEFF CANFIELD		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 118 22 W 26 CBBCAD Elevation Method 949 ft. 7.5 minute topographic map (+/- 5 feet)		97 ft.	97 ft.	05/20/1975
Drilling Method --		Drilling Fluid --		
Well Address 1745 OAKFIELD LA PLYMOUTH MN		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.		
Geological Material		Use Domestic		
CLAY	Color BLACK	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
CLAY	BROWN	Casing Diameter Weight Hole Diameter 4 in. to 92 ft. lbs./ft.		
GRAVEL	VARIED	Open Hole from ft. to ft.		
	Hardness	Screen YES Make JOHNSON Type stainless steel		
	From To	Diameter Slot/Gauze Length Set Between 4 18 4 92 ft. and 97 ft.		
	0 2	Static Water Level 67 ft. from Land surface Date Measured 05/20/1975		
	2 8	PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 20 g.p.m.		
	8 97	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination _feet _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Unique Number Verification Address Date N/A		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name MEYER Model number HP 0.75 Volts 230 Length of drop Pipe 75 ft. Capacity 12 g.p.m. Type Submersible Material		
System UTM - Nad83, Zone15, Meters X: 465304 Y: 4982923		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Last Strat Sand		Well Contractor Certification Renner E.H. & Sons 27015 License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		114312		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.

204614

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name PETER KUIPER Township Range Dir Section Subsections Elevation 941 ft. 118 22 W 27 ABCDBB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 236 ft. Depth Completed 236 ft. Date Well Completed 10/02/1961 Drilling Method --																																																																																																	
Well Address 7908 HWY 55 HY PLYMOUTH MN <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td>BROWN</td><td></td><td>0</td><td>10</td></tr> <tr><td>CLAY</td><td>BLUE</td><td></td><td>10</td><td>40</td></tr> <tr><td>SANDY CLAY</td><td>BROWN</td><td></td><td>40</td><td>46</td></tr> <tr><td>DIRTY SAND-STONES</td><td>BROWN</td><td></td><td>46</td><td>65</td></tr> <tr><td>CLAY</td><td>TAN</td><td></td><td>65</td><td>70</td></tr> <tr><td>CLAY-STONES</td><td>BLUE</td><td></td><td>70</td><td>81</td></tr> <tr><td>CEMENTED SAND</td><td>BROWN</td><td></td><td>81</td><td>85</td></tr> <tr><td>MUSH</td><td>BROWN</td><td></td><td>85</td><td>101</td></tr> <tr><td>CEMENTED SAND</td><td>BROWN</td><td></td><td>101</td><td>111</td></tr> <tr><td>CEMENTED GRAVEL</td><td>DARK</td><td></td><td>111</td><td>135</td></tr> <tr><td>ST. PETER, DIRTY</td><td>BROWN</td><td></td><td>135</td><td>177</td></tr> <tr><td>SHALE</td><td>WHITE</td><td></td><td>177</td><td>185</td></tr> <tr><td>SHALE</td><td>RED</td><td></td><td>185</td><td>191</td></tr> <tr><td>ST. PETER</td><td>WHITE</td><td></td><td>191</td><td>236</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY	BROWN		0	10	CLAY	BLUE		10	40	SANDY CLAY	BROWN		40	46	DIRTY SAND-STONES	BROWN		46	65	CLAY	TAN		65	70	CLAY-STONES	BLUE		70	81	CEMENTED SAND	BROWN		81	85	MUSH	BROWN		85	101	CEMENTED SAND	BROWN		101	111	CEMENTED GRAVEL	DARK		111	135	ST. PETER, DIRTY	BROWN		135	177	SHALE	WHITE		177	185	SHALE	RED		185	191	ST. PETER	WHITE		191	236	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>5 in. to 191 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from 191 ft. to 236 ft. Screen NO Make Type <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Static Water Level 80 ft. from Land surface Date Measured 10/02/1961 PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 42 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	5 in. to 191 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between												
	Geological Material	Color	Hardness	From	To																																																																																													
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NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 464709 Y: 4983523	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name RED JACKET Model number 15C K1-9CA HP 1.5 Volts Length of drop Pipe 108 ft. Capacity 20 g.p.m. Type Submersible Material																																																																																																	
First Bedrock St Peter Last Strat St.Peter Aquifer St Peter Depth to Bedrock 135 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Renner E.H. & Sons 27015 License Business Name Lic. Or Reg. No. Name of Driller																																																																																																	
County Well Index Online Report	204614																																																																																																	
Printed 9/10/2008 HE-01205-07																																																																																																		

Minnesota Unique Well No.
204615

County Hennepin
 Quad Hopkins
 Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name O. V. BUSBY Township Range Dir Section Subsections Elevation 118 22 W 27 CCAABA Elevation Method 950 ft. 7.5 minute topographic map (+/- 5 feet)	Well Depth 72 ft. Depth Completed 72 ft. Date Well Completed 10/01/1968 Drilling Method --								
Well Address 13919 CO RD 6 CR MN Geological Material Color Hardness From To DIRT AND SAND BLACK 0 27 CLAY, HARDPAN YELLOW 27 56 SAND BROWN 56 72	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use Domestic								
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> <tr> <td>4 in. to 66 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	4 in. to 66 ft.	lbs./ft.			
	Casing Diameter	Weight	Hole Diameter						
	4 in. to 66 ft.	lbs./ft.							
	Open Hole from ft. to ft.								
	Screen YES Make 948 Type stainless steel								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> <tr> <td>2</td> <td>12</td> <td>5.6</td> <td>0 ft. and ft.</td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between	2	12	5.6	0 ft. and ft.
	Diameter	Slot/Gauze	Length	Set Between					
2	12	5.6	0 ft. and ft.						
Static Water Level 30 ft. from Land surface Date Measured 10/01/1968									
PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 25 g.p.m.									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
REMARKS WELL WAS DESTROYED Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 463948 Y: 4982664	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
First Bedrock Last Strat Sand-brown Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
	Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name <u>GOULD</u> Model number ___ HP <u>1.5</u> Volts Length of drop Pipe <u>55</u> ft. Capacity <u> </u> g.p.m. Type <u>Submersible</u> Material								
	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
	Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No								
County Well Index Online Report	Well Contractor Certification <u>Mark Well Co.</u> <u>02133</u> License Business Name Lic. Or Reg. No. Name of Driller								

204615

Printed 9/10/2008
 HE-01205-07

Minnesota Unique Well No.
224310

County Hennepin
 Quad Hopkins
 Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 03/31/1994
 Update Date 10/11/1995
 Received Date

Well Name PARKERS LAKE SUB. STAT.		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 118 22 W 27 CDCCBC Elevation Method 939 ft. 7.5 minute topographic map (+/- 5 feet)		243 ft.	243 ft.	02/25/1969	
		Drilling Method Cable Tool			
Well Address PLYMOUTH MN		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Commercial			
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.			
Geological Material CLAY GRAVEL-CLAY MIXED WATER SAND GRAVEL-HARD-DIRTY FINE GRAVEL SHALE SHALEY SANDROCK SANDROCK SHALE SHALE SANDROCK-HARD, SOFT STREAKS		Color	Hardness	From To	
		YELLOW		0 15 15 32 32 46 46 67 67 76 76 82 82 108 108 189 189 196 196 208 208 243	
		GREEN			
		GREEN RED	SOFT		
		Casing Diameter	Weight	Hole Diameter	
		8 in. to 67 ft. 4 in. to 208 ft.	lbs./ft. lbs./ft.	8 in. to 107 ft. 4 in. to 246 ft.	
		Open Hole from 208 ft. to 246 ft.			
		Screen NO	Make	Type	
		Diameter	Slot/Gauze	Length	Set Between
		Static Water Level 55 ft. from land surface Date Measured 02/25/1969			
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.			
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)			
REMARKS M.G.S. NO.507.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from owner Date 08/30/2004 System UTM - Nad83, Zone15, Meters X: 464048 Y: 4982328		Nearest Known Source of Contamination _ft. _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 0 Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Cuttings Yes First Bedrock Platteville Last Strat St.Peter		Well Contractor Certification Bergerson-Caswell 27058 License Business Name Lic. Or Reg. No. Name of Driller			
County Well Index Online Report		224310		Printed 9/10/2008 HE-01205-07	

SITE SUMMARY

Site Name: Plymouth - Dunkirk Lane

Fire Department: Plymouth Fire Department
3400 Plymouth Blvd.
Plymouth, MN 55447

Site Contact: Rick Kline, Fire Chief
763-509-5121

Training Location: Fire Station 3, 3300 Dunkirk Lane, Plymouth

Training Location Coordinates (X,Y): 461306.41, 4984993.69

Type of foam used in training: AFFF: Ansul

Foam training frequency: Semi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: less than 20 gallons
Class A: less than 50 gallons

Nearest surface water: Less than 1/8 mile east

Nearest wetland: Less than 1/8 mile east

Karst Area: Site is located in a covered karst area

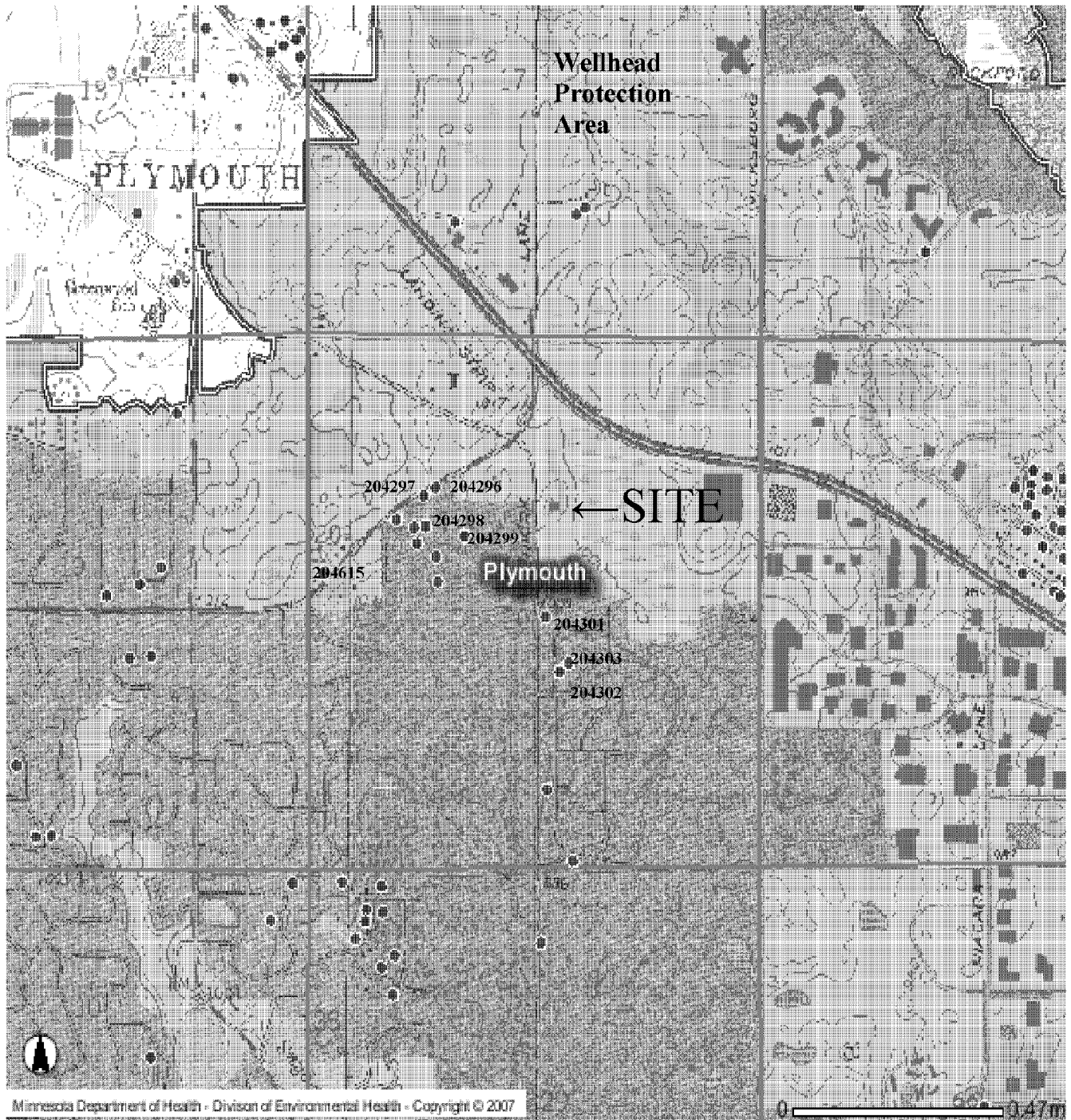
Nearest water well: Less than 1/4 mile west

Nearest Wellhead Protection Area: Training site is located in a WPA

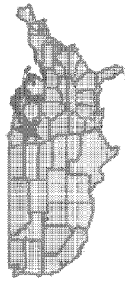
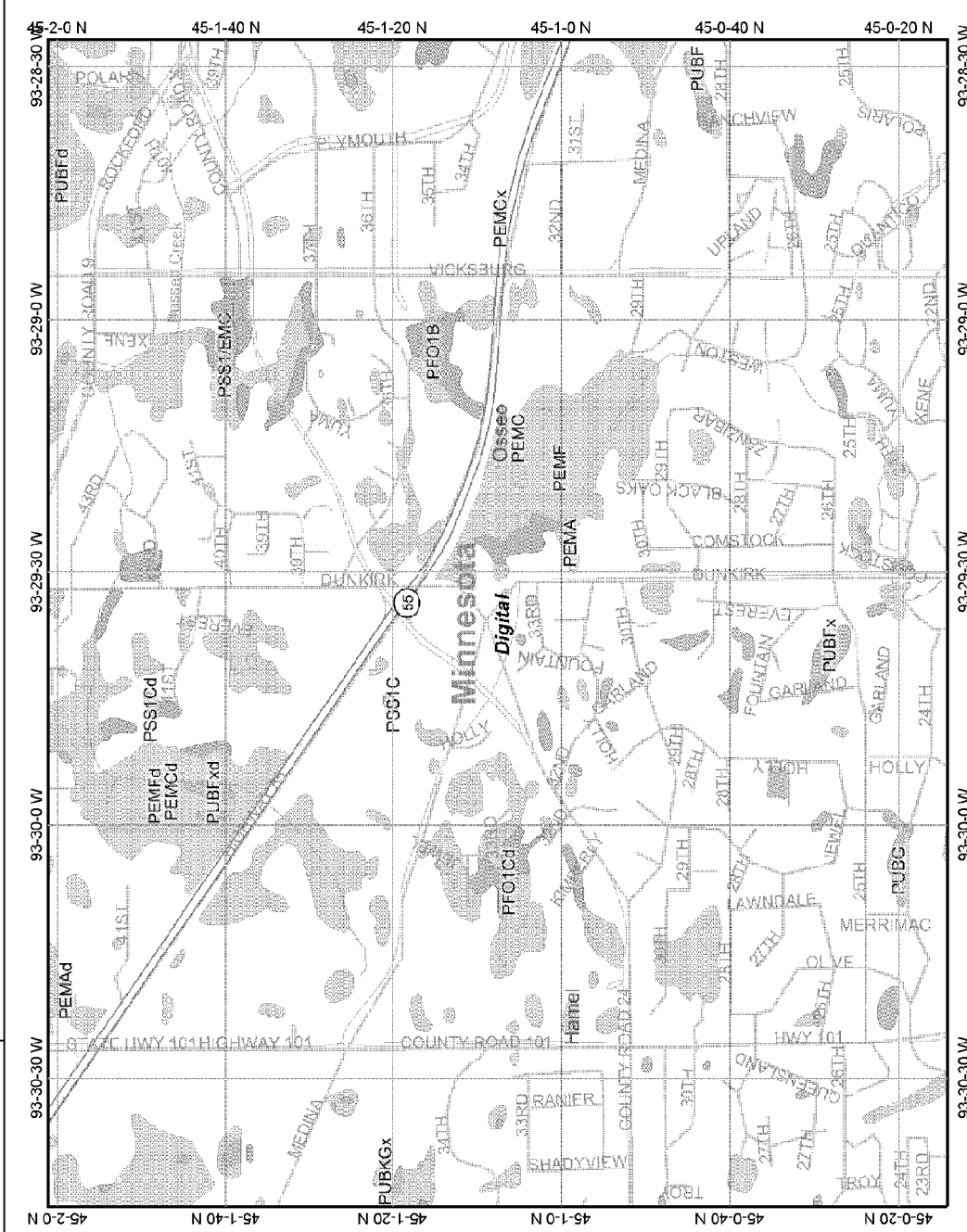
Nearest Source Water Assessment Area: Less than 1 mile

SITE RANKING: 18

PLYMOUTH - DUNKIRK LANE CWI Well Map



Plymouth Dunkirk Ln Wetland Map



Legend

- OHio_wet_scan
 - 0
 - 1
- Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- Lower 48 Available Wetland Data
 - Non-Digital
 - Digital
 - No Data
 - Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

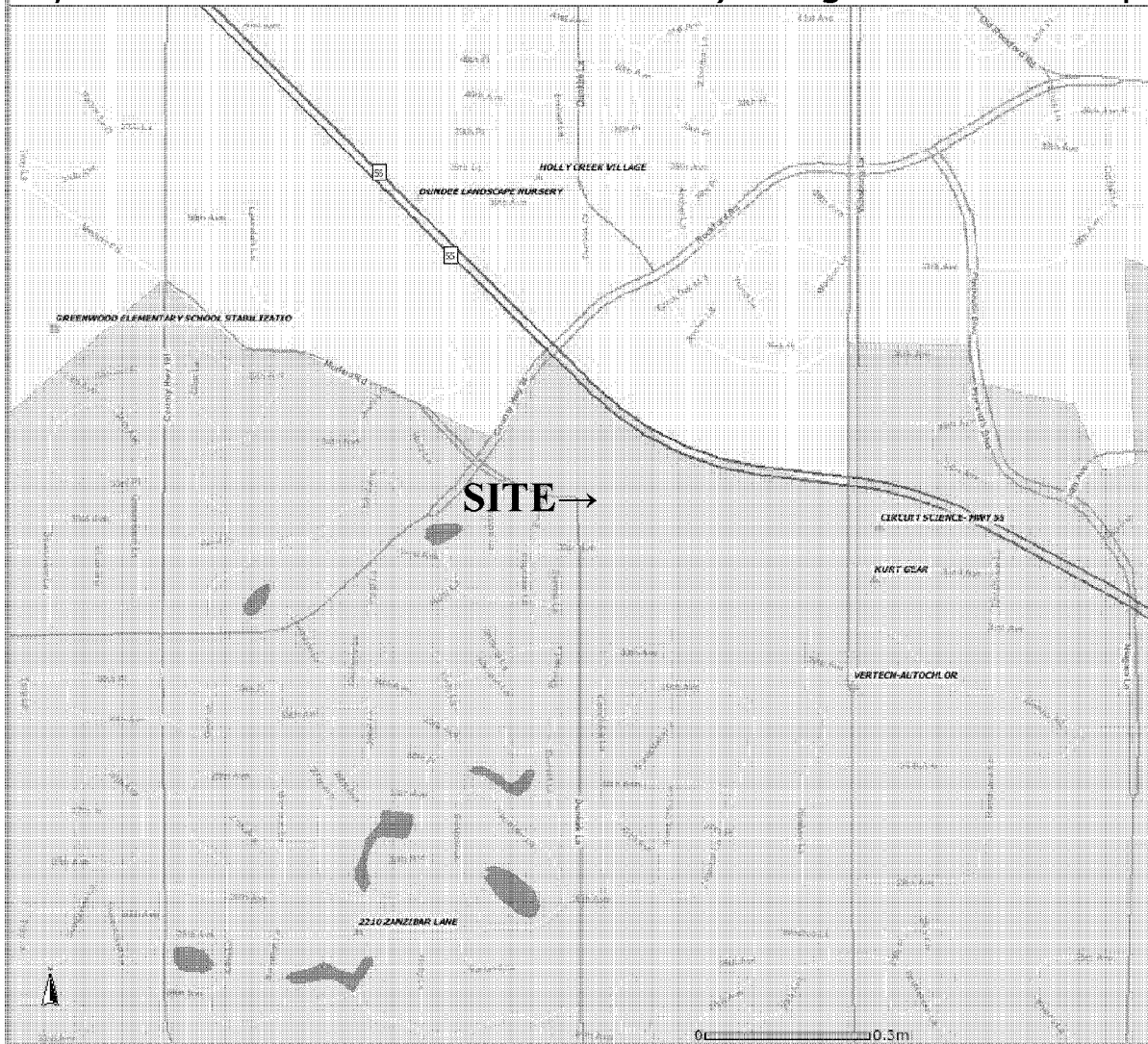
Scale: 1:23,080



Map center: 45° 1' 8" N, 93° 29' 36" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.













Plymouth Dunkirk Ln What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

-  Deleted State Superfund
-  Permitted Solid Waste
-  Unpermitted Dumps
-  MFRAP
-  State Superfund
-  CERCLA
-  Federal Superfund
-  State Closed Landfill
-  Voluntary Investigation & Cleanup
-  RCRA TSD Facilities
-  RCRA Investigation & Cleanup
-  State Assessment

Minnesota Unique Well No.
204296

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 05/22/2002
 Received Date

Well Name JOHN GULLICKSON Township Range Dir Section Subsections Elevation 1012 ft. 118 22 W 20 BDBBBD Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 280 ft. Depth Completed 280 ft. Date Well Completed 11/15/1968 Drilling Method -- Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft. Casing Diameter Weight Hole Diameter 4 in. to 270 ft. lbs./ft. Open Hole from 270 ft. to 280 ft. Screen NO Make Type Diameter Slot/Gauze Length Set Between Static Water Level 112 ft. from Land surface Date Measured 11/15/1968 PUMPING LEVEL (below land surface) ft. after hrs. pumping 20 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																													
Well Address 17005 24 CR PLYMOUTH MN <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td></td><td></td><td>0</td><td>23</td></tr> <tr><td>GRAVEL</td><td></td><td></td><td>23</td><td>44</td></tr> <tr><td>BL CLAY</td><td></td><td></td><td>44</td><td>81</td></tr> <tr><td>SAND GRAVEL</td><td></td><td></td><td>81</td><td>160</td></tr> <tr><td>BLUE CLAY</td><td></td><td></td><td>160</td><td>241</td></tr> <tr><td>SAND ROCK</td><td>WHITE</td><td></td><td>241</td><td>262</td></tr> <tr><td>SHAKOPEE</td><td>PINK</td><td></td><td>262</td><td>278</td></tr> <tr><td>SAND ROCK</td><td>WHITE</td><td></td><td>278</td><td>280</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY			0	23	GRAVEL			23	44	BL CLAY			44	81	SAND GRAVEL			81	160	BLUE CLAY			160	241	SAND ROCK	WHITE		241	262	SHAKOPEE	PINK		262	278	SAND ROCK	WHITE		278	280	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 460888 Y: 4985047 Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 11/14/1968 Manufacturer's name FAIRBANKS MORSE Model number K2ND HP 1 Volts Length of drop Pipe 126 ft. Capacity 12 g.p.m. Type Submersible Material Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Renner E.H. & Sons 27015 License Business Name Lic. Or Reg. No. Name of Driller
Geological Material	Color	Hardness	From	To																																										
CLAY			0	23																																										
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NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 460888 Y: 4985047	First Bedrock St Peter Aquifer Prairie Du Chien Group Last Strat Prairie Du Chien Group Depth to Bedrock 241 ft.																																													
County Well Index Online Report	204296																																													
Printed 9/10/2008 HE-01205-07																																														

Minnesota Unique Well No.
204298

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 05/22/2002
 Received Date

Well Name JOHN GULLICKSON Township Range Dir Section Subsections Elevation 1010 ft. 118 22 W 20 BDBCCB Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 299 ft. Depth Completed 299 ft. Date Well Completed 09/27/1968 Drilling Method --																																																											
Well Address 17040 32ND AV N PLYMOUTH MN <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr><td>SANDY CLAY</td><td>BROWN</td><td></td><td>0</td><td>30</td></tr> <tr><td>GRAVEL</td><td>DARK</td><td></td><td>30</td><td>43</td></tr> <tr><td>CLAY</td><td>BROWN</td><td></td><td>43</td><td>81</td></tr> <tr><td>CLAY</td><td>GRAY</td><td></td><td>81</td><td>92</td></tr> <tr><td>GRAVEL</td><td>DARK</td><td></td><td>92</td><td>100</td></tr> <tr><td>CLAY</td><td>GRAY</td><td></td><td>100</td><td>225</td></tr> <tr><td>CLAY</td><td>GRAY</td><td></td><td>225</td><td>255</td></tr> <tr><td>DOLOMITE</td><td>PINK</td><td></td><td>255</td><td>299</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SANDY CLAY	BROWN		0	30	GRAVEL	DARK		30	43	CLAY	BROWN		43	81	CLAY	GRAY		81	92	GRAVEL	DARK		92	100	CLAY	GRAY		100	225	CLAY	GRAY		225	255	DOLOMITE	PINK		255	299	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 299 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from 299 ft. to 299 ft. Screen NO Make Type <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Static Water Level 110 ft. from Land surface Date Measured 09/27/1968 PUMPING LEVEL (below land surface) ft. after hrs. pumping 20 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 299 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between				
	Geological Material	Color	Hardness	From	To																																																							
	SANDY CLAY	BROWN		0	30																																																							
	GRAVEL	DARK		30	43																																																							
	CLAY	BROWN		43	81																																																							
	CLAY	GRAY		81	92																																																							
	GRAVEL	DARK		92	100																																																							
	CLAY	GRAY		100	225																																																							
	CLAY	GRAY		225	255																																																							
	DOLOMITE	PINK		255	299																																																							
Casing Diameter	Weight	Hole Diameter																																																										
4 in. to 299 ft.	lbs./ft.																																																											
Diameter	Slot/Gauze	Length	Set Between																																																									
NO REMARKS	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																																											
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 460854 Y: 4984927	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 10/15/1968 Manufacturer's name AERMCTOR Model number ___ HP 0.75 Volts Length of drop Pipe 126 ft. Capacity 12 g.p.m Type Submersible Material																																																											
First Bedrock Prairie Du Chien Group Aquifer Prairie Du Chien Group Last Strat Prairie Du Chien Group Depth to Bedrock 255 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Renner E.H. & Sons 27015 License Business Name Lic. Or Reg. No. Name of Driller																																																											
County Well Index Online Report	204298																																																											
Printed 9/10/2008 HE-01205-07																																																												

Minnesota Unique Well No.
204299

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name J. GULLICKSON		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 118 22 W 20 BDBDDC Elevation Method 1015 ft. 7.5 minute topographic map (+/- 5 feet)		208 ft.	208 ft.	10/25/1967
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Domestic		
		Casing Type	Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.	
		Casing Diameter	Weight	Hole Diameter
		4 in. to 204 ft.	lbs./ft.	
		Open Hole from ft. to ft.		
		Screen YES Make Type stainless steel		
		Diameter	Slot/Gauze	Length Set Between
		Static Water Level 108 ft. from Land surface Date Measured 10/25/1967		
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
Well Address 16925 CO. RD. 24 CR WAYZATA MN				
Geological Material		Color	Hardness	From To
CLAY				0 204
SAND				204 208
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination _feet _direction _type		
Unique Number Verification N/A Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
System UTM - Nad83, Zone15, Meters X: 460991 Y: 4984898		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name AERMCTOR Model number __ HP 0.75 Volts		
		Length of drop Pipe _ft. Capacity _g.p.m. Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock		Well Contractor Certification		
Last Strat Sand		Stodola Don Well Co. 27172		
Aquifer Quat. Buried Artes. Aquifer		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock ft.				
County Well Index Online Report		204299		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.
204301

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name BILL CAVANAUGH Township Range Dir Section Subsections Elevation 1009 ft. 118 22 W 20 DBBBBA Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 105 ft. Depth Completed 105 ft. Date Well Completed 10/25/1970 Drilling Method --							
Well Address 2951 COMSTOCK LA PLYMOUTH MN Geological Material Color Hardness From To CLAY YELLOW 0 16 CLAY BLUE 16 32 SAND + GRAVEL BLUE 32 61 SAND GRAVEL BROWN HARD 61 72 HARDPAN BROWN 72 98 SAND, GRAVEL 98 105	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.							
	Use Domestic							
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.							
	<table style="width:100%; border: none;"> <tr> <td style="text-align: center;">Casing Diameter</td> <td style="text-align: center;">Weight</td> <td style="text-align: center;">Hole Diameter</td> </tr> <tr> <td style="text-align: center;">4 in. to 99 ft.</td> <td style="text-align: center;">lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	4 in. to 99 ft.	lbs./ft.		
	Casing Diameter	Weight	Hole Diameter					
4 in. to 99 ft.	lbs./ft.							
Open Hole from ft. to ft. Screen YES Make 960 Type								
<table style="width:100%; border: none;"> <tr> <td style="text-align: center;">Diameter</td> <td style="text-align: center;">Slot/Gauze</td> <td style="text-align: center;">Length</td> <td style="text-align: center;">Set Between</td> </tr> <tr> <td style="text-align: center;">4</td> <td></td> <td style="text-align: center;">6</td> <td style="text-align: center;">0 ft. and ft.</td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between	4		6	0 ft. and ft.
Diameter	Slot/Gauze	Length	Set Between					
4		6	0 ft. and ft.					
Static Water Level 75 ft. from Land surface Date Measured 10/25/1970 PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 30 g.p.m.								
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)								
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 461279 Y: 4984647	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
First Bedrock Aquifer Quat. Buried Artes. Aquifer Last Strat Sand Depth to Bedrock ft	Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
County Well Index Online Report	Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name STA-RITE Model number ___ HP 1.8 Volts Length of drop Pipe 84 ft. Capacity ___g.p.m. ___type Material							
204301	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Mark Well Co. 02133 License Business Name Lic. Or Reg. No. Name of Driller							
Printed 9/10/2008 HE-01205-07	204301							

Minnesota Unique Well No.
204302

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name GREG REDPATH		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 118 22 W 20 DBBCDD Elevation Method		138 ft.	138 ft.	10/24/1968	
7.5 minute topographic map (+/- 5 feet)		Drilling Method --			
Well Address 2920 COMSTOCK LA PLYMOUTH MN Geological Material CLAY AND SAND SAND Color Hardness From To 0 126 126 138		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.			
		Casing Diameter		Weight	Hole Diameter
		4 in. to 134 ft.		lbs./ft.	
		Open Hole from ft. to ft.			
		Screen YES Make Type stainless steel			
		Diameter		Slot/Gauze	Length Set Between
		4			4 134 ft. and 138 ft.
Static Water Level					
85 ft. from Land surface Date Measured 10/24/1968					
PUMPING LEVEL (below land surface)					
85 ft. after hrs. pumping 20 g.p.m.					
Well Head Completion					
Pitless adapter manufacturer Model					
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade					
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)					
Unique Number Verification N/A Date N/A					
System UTM - Nad83, Zone15, Meters X: 461327 Y: 4984476					
Nearest Known Source of Contamination					
__feet __direction __type					
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed					
Manufacturer's name Model number __ HP 0.75 Volts					
Length of drop Pipe __ft. Capacity __g.p.m. Type Submersible Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification					
First Bedrock		Stodola Don Well Co. 27172			
Last Strat Sand		License Business Name Lic. Or Reg. No. Name of Driller			
Aquifer Quat. Buried Artes. Aquifer					
Depth to Bedrock ft					
County Well Index Online Report		204302		Printed 9/10/2008 HE-01205-07	

Minnesota Unique Well No.
204303

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name ROBERT RODERICK		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 118 22 W 20 DBBDCD Elevation Method 1015 ft. 7.5 minute topographic map (+/- 5 feet)		169 ft.	169 ft.	04/17/1969	
Drilling Method --					
Well Address 16520 29TH AV N PLYMOUTH MN Geological Material CLAY SAND Color Hardness From To 162 169		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Use Domestic			
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.			
		Casing Diameter		Weight	Hole Diameter
		4 in. to 165 ft.		lbs./ft.	
		Open Hole from ft. to ft.			
		Screen YES Make Type stainless steel			
		Diameter	Slot/Gauze	Length	Set Between
		4		4	0 ft. and ft.
		Static Water Level 103 ft. from Land surface Date Measured 04/17/1969			
PUMPING LEVEL (below land surface) 103 ft. after hrs. pumping 20 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Nearest Known Source of Contamination __feet __direction __type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 075 Volts Length of drop Pipe 25 ft. Capacity __g.p.m. __type Submersible Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification Stodola Don Well Co. 27172 License Business Name Lic. Or Reg. No. Name of Driller					
First Bedrock Last Strat Sand		Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.			
County Well Index Online Report		204303		Printed 9/10/2008 HE-01205-07	

SITE SUMMARY

Site Name: Plymouth - Old Rockford Road

Fire Department: Plymouth Fire Department
3400 Plymouth Blvd.
Plymouth, MN 55447

Site Contact: Rick Kline, Fire Chief
763-509-5121

Training Location: Fire Station 2, 12000 Old Rockford Road, Plymouth

Training Location Coordinates (X,Y): 465932.53, 4986344.76

Type of foam used in training: AFFF: Ansul

Foam training frequency: Semi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Storm sewer

Annual foam use: AFFF: less than 20 gallons
Class A: less than 50 gallons

Nearest surface water: Less than 1/8 mile north and west

Nearest wetland: Less than 1/8 mile north

Karst Area: Site is located in a covered karst area

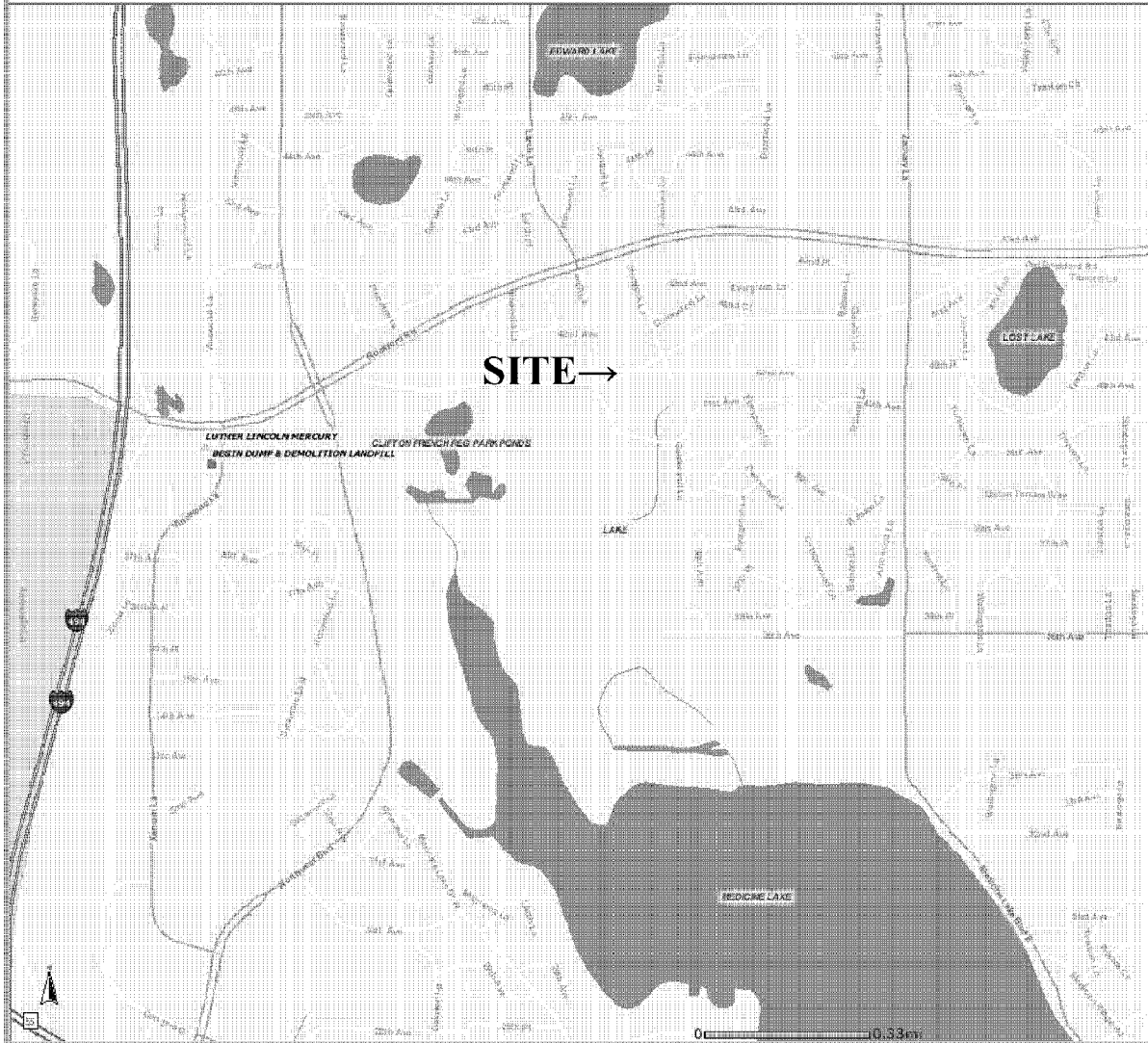
Nearest water well: Less than 1/8 mile north

Nearest Wellhead Protection Area: Training site is located in a WPA

Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 18

Plymouth Old Rockford What's In My Neighborhood Map

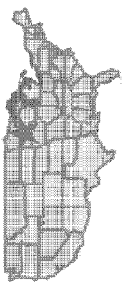
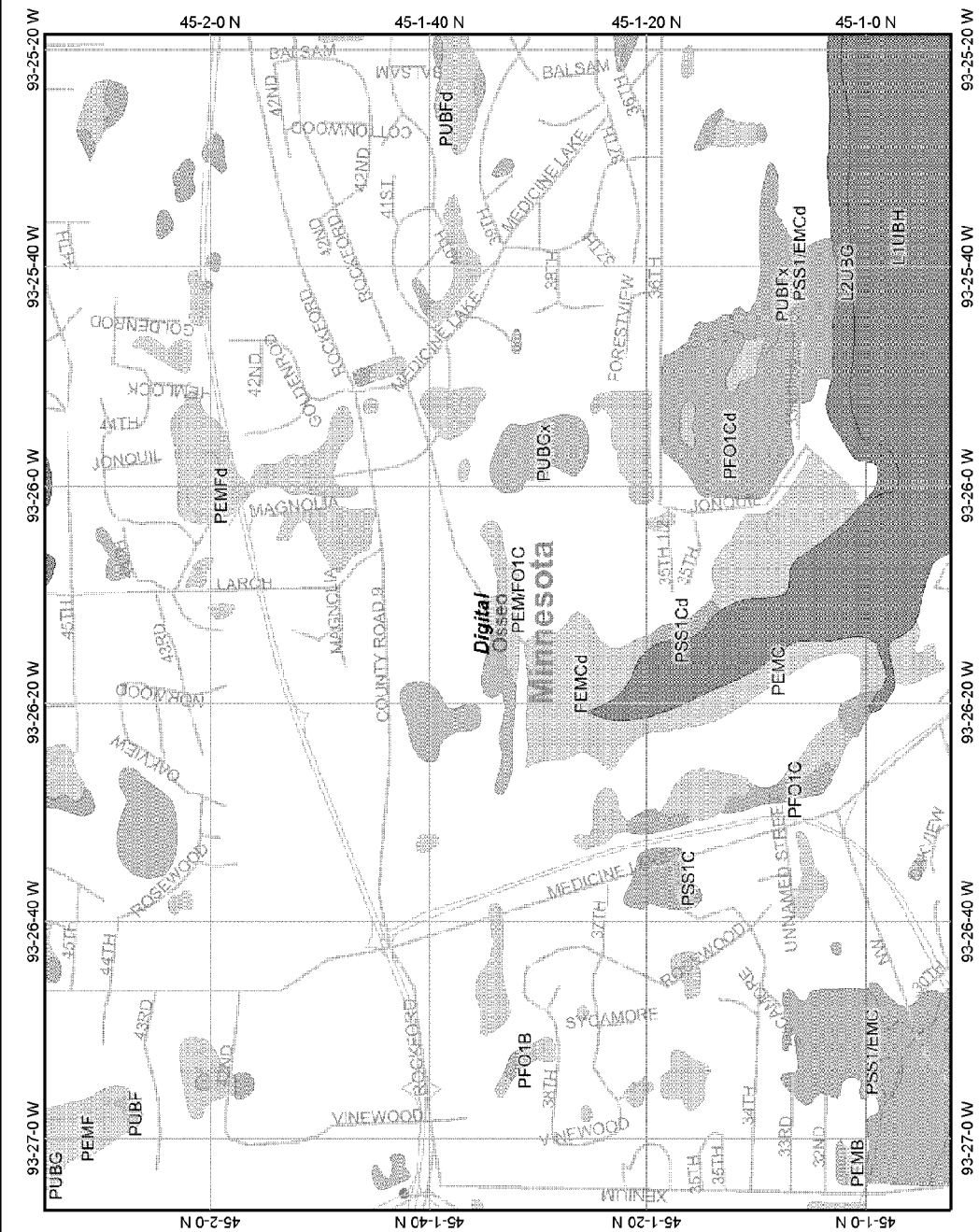


Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - MFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA TSD Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Plymouth Old Rockford Rd Wetland Map



Legend

- OHio_wet_scan
- 0
- 1
- Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

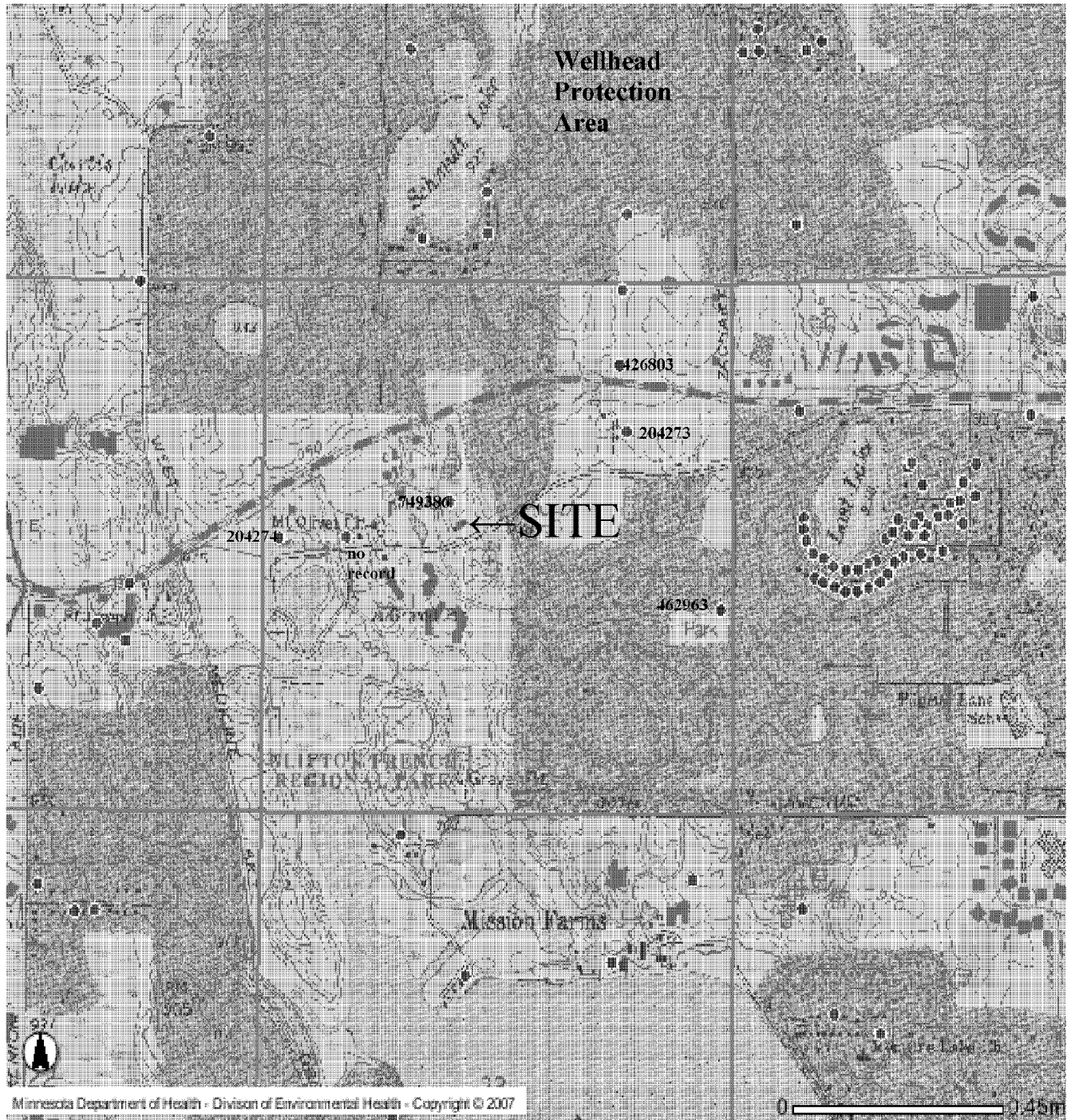


Scale: 1:17,982

Map center: 45° 1' 34" N, 93° 26' 13" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

PLYMOUTH - OLD ROCKFORD ROAD CWI Well Map



Minnesota Unique Well No.
204273

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 05/21/2002
 Received Date

Well Name TOM FORSTER		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 118 22 W 14 ADBBBD Elevation Method		211 ft.	211 ft.	07/29/1959	
7.5 minute topographic map (+/- 5 feet)		Drilling Method --			
Well Address 11510 ROCKFORD RD PLYMOUTH MN Geological Material CLAY, SOME BOULDER HARDPAN SAND, SOME GRAVEL + CLAY BOULDERS GRAVEL, SOME CLAY CLAY, SOME GRAVEL SAND CLAY, SOME GRAVEL ST. PETER SANDSTONE SHALEY SANDSTONE SANDSTONE		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.			
		Casing Diameter		Weight	Hole Diameter
		4 in. to 169 ft.		lbs./ft.	
		Open Hole from 159 ft. to 211 ft.			
		Screen NO Make Type			
		Diameter		Slot/Gauze	Length Set Between
Color Hardness From To		Static Water Level			
0 72		88 ft. from Land surface Date Measured 07/29/1959			
72 79		PUMPING LEVEL (below land surface)			
79 139		96 ft. after hrs. pumping 20 g.p.m.			
139 141					
141 147					
147 160					
160 164					
164 167					
167 194					
194 204					
204 211					
NO REMARKS		Well Head Completion			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Pitless adapter manufacturer Model			
Unique Number Verification N/A Date N/A		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade			
System UTM - Nad83, Zone15, Meters X: 466487 Y: 4986613		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)			
		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Nearest Known Source of Contamination			
		__feet __direction __type			
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed			
		Manufacturer's name JACUZZI Model number 16S4 H HP 1.5 Volts 220			
		Length of drop Pipe 105 ft. Capacity g.p.m. Type Submersible Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Well Contractor Certification			
First Bedrock St Peter		Tri-state Well Co.		27118	
Last Strat St.Peter		License Business Name		BENEKE R.	
Aquifer St Peter		Lic. Or Reg. No.		Name of Driller	
Depth to Bedrock 167 ft.					
County Well Index Online Report		204273		Printed 9/10/2008	
		HE-01205-07			

Minnesota Unique Well No.
204274

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 05/21/2002
 Received Date

Well Name JEROME BEGIN		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 118 22 W 14 BCCCCA Elevation Method 910 ft. 7.5 minute topographic map (+/- 5 feet)		160 ft.	160 ft.	11/06/1959
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Domestic		
		Casing Type	Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.	
		Casing Diameter	Weight	Hole Diameter
		5 in. to 143 ft.	lbs./ft.	
		Open Hole from 143 ft. to 160 ft.		
		Screen NO	Make	Type
		Diameter	Slot/Gauze	Length Set Between
		Static Water Level 67 ft. from Land surface Date Measured 11/06/1959		
		PUMPING LEVEL (below land surface) 78 ft. after hrs. pumping 15 g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
Well Address 12710 ROCKFORD RD PLYMOUTH MN				
Geological Material GLACIAL DRIFT PLATTVILLE LIMESTONE ST. PETER SANDSTONE		Color	Hardness	From To
				0 109 109 145 145 160
REMARKS HARDNESS - 21 GRAINS FE - 1.7 PPM		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Nearest Known Source of Contamination _feet _direction _type		
Unique Number Verification N/A Date N/A		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
System UTM - Nad83, Zone15, Meters X: 465302 Y: 4986297		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name JACUZZI Model number 1L4 HP 1 Volts 220		
		Length of drop Pipe 120 ft. Capacity g.p.m Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock Prairie Du Chien Group		Well Contractor Certification		
Last Strat Prairie Du Chien Group		Tri-state Well Co. 27118		
Aquifer Prairie Du Chien Group		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock 109 ft.				
County Well Index Online Report		204274		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.
426803

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**

Entry Date 03/06/1993
 Update Date 03/11/2005
 Received Date

Minnesota Statutes Chapter 103I

Well Name PLYMOUTH (P-3)		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 118 22 W 14 AACBCB Elevation Method 966 ft. 7.5 minute topographic map (+/- 5 feet)		328 ft.	328 ft.	08/12/1986	
Drilling Method Non-specified Rotary					
Well Address 11510 9 CR PLYMOUTH MN 55447		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Test well			
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 2 ft.			
Geological Material		Casing Diameter	Weight	Hole Diameter	
		4 in. to 155 ft.	10.79 lbs./ft.	8 in. to 155 ft. 4 in. to 328 ft.	
Color	Hardness	From	To		
CLAY (FILL) BROWN	SOFT	0	3		
CLAY BLACK	SOFT	3	5		
CLAY BLUE	MEDIUM	5	35		
SILTY SANDY CLAY RED	MEDIUM	35	45		
SANDY CLAY & GRAVEL RED	MEDIUM	45	55		
SANDY CLAY & GRAVEL RED	SOFT	55	60		
GRAVEL VARIED	SOFT	60	68		
GRAVEL, CLAY, SAND RED	MEDIUM	68	75		
SILTY SANDY GRAVEL RED	MEDIUM	75	149		
SHALEY SANDSTONE GRN/GRY	HARD	149	155		
SANDSTONE (ST. PETER) GRAY	HARD	155	165		
LIMESTONE (SHAKOPEE) BRN/ORN	HARD	165	322		
SANDSTONE (JORDAN) WHITE	V.SOFT	322	328		
Open Hole from 155 ft. to 328 ft.					
Screen NO Make Type					
Diameter		Slot/Gauze	Length	Set Between	
Static Water Level 91 ft. from land surface Date Measured 08/06/1986					
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
REMARKS M.G.S. NO.2542.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from owner Date 07/19/2004 System UTM - Nad83, Zone15, Meters X: 466462 Y: 4986811		Grout Material: Neat Cement from 0 to 155 ft. 1.5 yds.			
Nearest Known Source of Contamination _ft. _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number _ HP _ Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Cuttings Yes First Bedrock St Peter Last Strat Jordan		Well Contractor Certification Bergerson-Caswell 27058 License Business Name Lic. Or Reg. No. Name of Driller			
County Well Index Online Report		426803		Printed 9/10/2008 HE-01205-07	

Minnesota Unique Well No.
462963

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 1031

Entry Date 03/06/1993
 Update Date 05/06/2005
 Received Date

Well Name PLYMOUTH MW MARION PARK		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation		320 ft.	320 ft.	01/18/1991
118	22 W 14 DAADDC	Elevation Method		7.5 minute topographic map (+/- 5 feet)
Well Address 3950 ZACHARY LA N PLYMOUTH MN 55447		Drilling Method Non-specified Rotary		
Geological Material		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
TOP SOIL	BLACK	Bentonite	From -ft. to Ft.	
SANDY CLAY	GRAY	Use Abandoned Status Sealed		
CLAY	BROWN	Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 2 ft.		
GRAVEL	DARK	Casing Diameter	Weight	Hole Diameter
CLAY	BROWN	4 in. to 187 ft.	10.79 lbs./ft.	4 in. to 320 ft.
GRAVEL	GRAY	Open Hole from 187 ft. to 320 ft.		
CLAY	BROWN	Screen NO Make Type		
GRAVEL	GRAY	Diameter	Slot/Gauze	Length
CLAY	RED			Set Between
GRAVEL	BROWN			
CLAY	RED			
GRAVEL & ROCKS	BROWN			
SAND & GRAVEL	BROWN			
ST. PETER SANDSTONE	WHITE			
SHAKOPEE DOLOMITE	TAN			
ST. PETER SANDSTONE	TAN			
DOLOMITE	TAN/YEL			
DOLOMITE	TAN			
DOLOMITE	TAN/YEL			
DOLOMITE	TAN/WHT			
SANDSTONE	WHT/PNK			
REMARKS		Static Water Level		
M.G.S. NO. 3199.		72 ft. from land surface Date Measured 01/17/1991		
WELL SEALED 04-19-1993 BY 27010		PUMPING LEVEL (below land surface)		
ORIGINAL USE MW - MONITOR WELL		100 ft. after 3 hrs. pumping 40 g.p.m.		
Located Minnesota Geological Survey		Well Head Completion		
Method Digitization (Screen) - Map (1:24,000)		Pitless adapter manufacturer Model		
Unique Number Verification Information from owner Date 07/19/2004		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
System UTM - Nad83, Zone15, Meters X: 466808 Y: 4986080		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Grout Material: Neat Cement from 0 to 187 ft. 40 bags		
		Nearest Known Source of Contamination		
		90 feet direction Septic tank/drain field type		
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number HP Volts		
		Length of drop Pipe ft. Capacity g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock St Peter		Well Contractor Certification		
Last Strat Jordan		Renner E.H. Well		
Aquifer Prairie Du Chien-Jordan		71015		
Depth to Bedrock 160 ft.		PRAUGHT V.		
		License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		462963		Printed 9/10/2008
				HE-01205-07

Minnesota Unique Well No.

749386

County Hennepin
 Quad Osseo
 Quad ID 120C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 05/22/2007
 Update Date 02/15/2008
 Received Date 07/05/2007

Well Name PLYMOUTH TW-16		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 118 22 W 14 BDDBCA Elevation Method 933 ft. 7.5 minute topographic map (+/- 5 feet)		408 ft.	408 ft.	04/27/2007		
Drilling Method Non-specified Rotary						
Well Address 12000 OLD ROCKFORD RD PLYMOUTH MN 55441		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Bentonite	From -ft. to Ft.			
		Use Test well				
Geological Material		Casing Type	Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Above/Below ft.				
		Casing Diameter	Weight	Hole Diameter		
ROCKY SANDY CLAY SAND CLAY ROCK SAND TOOK WATER CLAY ROCKS SAND GRAVEL CLAY GRAVEL SANDSTONE SHALE SANDSTONE SHALE SANDSTONE SHALE GRY WHT ORG SANDSTONE SHALE GRY WHT ORG SANDSTONE TAN GRN ORG SANDSTONE SANDSTONE SANDSTONE SANDSTONE SHALE BRN TAN GRY		4 in. to	152 ft.	10.79 lbs./ft.	8.75 in. to 150 ft.	
				4 in. to 408 ft.		
		Open Hole from 153 ft. to 408 ft.				
		Screen NO Make Type				
		Diameter	Slot/Gauze	Length	Set Between	
		Static Water Level 62 ft. from Top of casing extension Date Measured 04/27/2007				
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.				
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
		REMARKS GAMMA LOGGED 5-16-2007. M.G.S. NO. 4696. LOGGED BY JIM TRAEN.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Info/GPS from data source Date 05/22/2007 System UTM - Nad83, Zone15, Meters X: 465886 Y: 4966405		Grout Material: Neat Cement from 20 to 153 ft. 45 bags Grout Material: Neat Cement from to 20 ft. 10 bags		
		Nearest Known Source of Contamination 50 feet South East direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP Volts Length of drop Pipe ft. Capacity g.p.m. Type Material				
Cuttings Yes Borehole Geophysics Yes First Bedrock St Peter Last Strat St. Lawrence		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Well Contractor Certification EH Renner and Sons, Inc. 1431 PRAUGHT, L. License Business Name Lic. Or Reg. No. Name of Driller				
County Well Index Online Report		749386		Printed 9/10/2008 HE-01205-07		

- **Randall**

SITE SUMMARY

Site Name: Randall

Fire Department: Randall Fire Department
105 Maplewood Drive
Randall, MN 56475

Site Contact: Pat Boone, Fire Chief
320-360-5240
Patrick.j.boone@us.army.mil

Training Location: Lot across from the fire station

Training Location Coordinates (X,Y): 383015.77, 5105488.16

Type of foam used in training: Class A/B Pyrocom sticks

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class A/B Pyrocom sticks: less than 5 gallons (1 stick Class B and 2 sticks Class A)
Class A Ansul Silv-ex: 30 gallons

Nearest surface water: More than 1 mile

Nearest wetland: Approximately 1/4 mile west and southwest

Karst Area: Site is not located in a karst area.

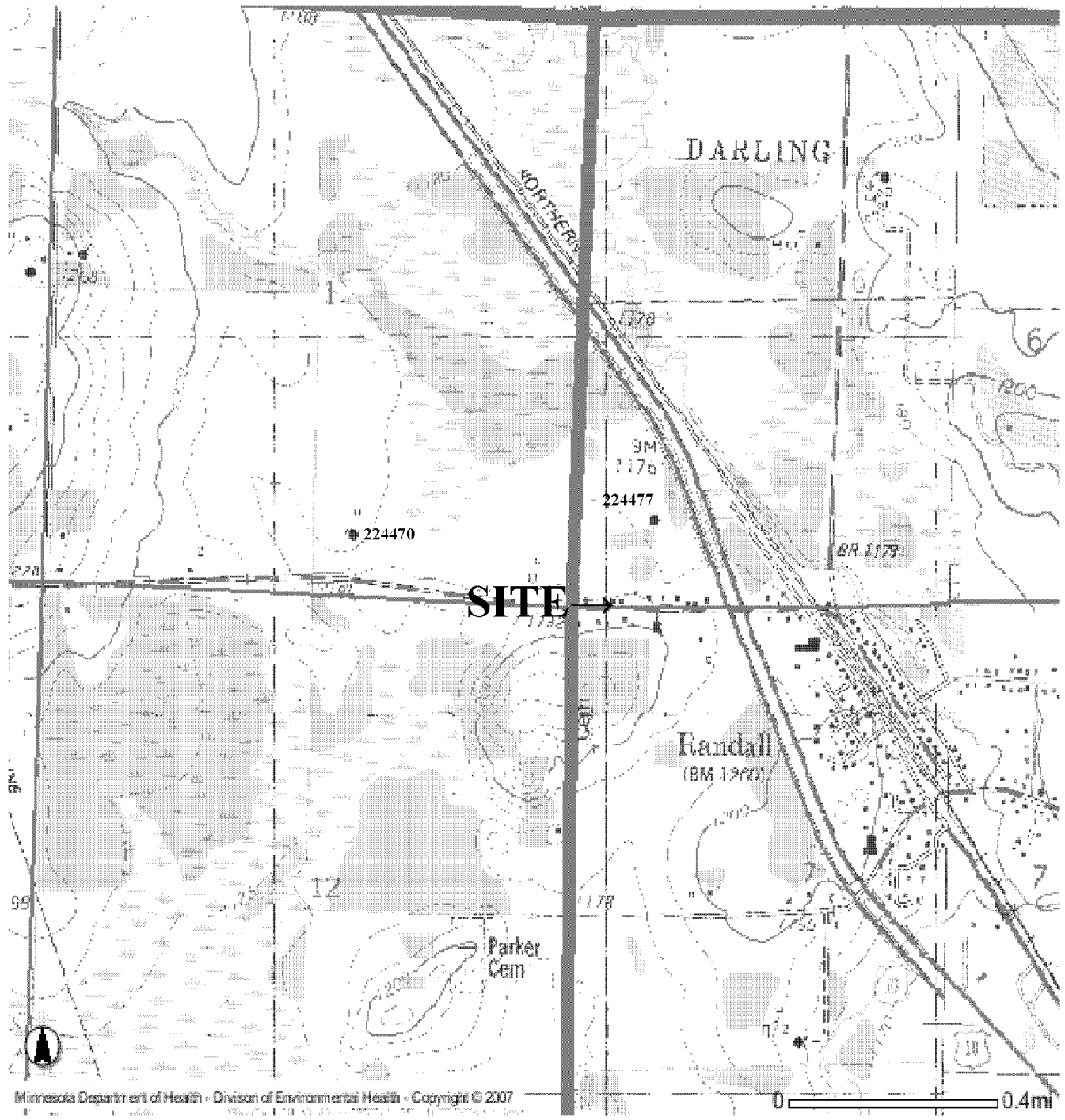
Nearest water well: Less than 1/4 mile northeast

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: Less than 1/4 mile

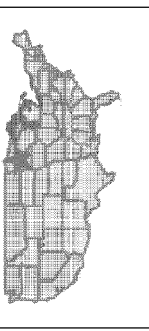
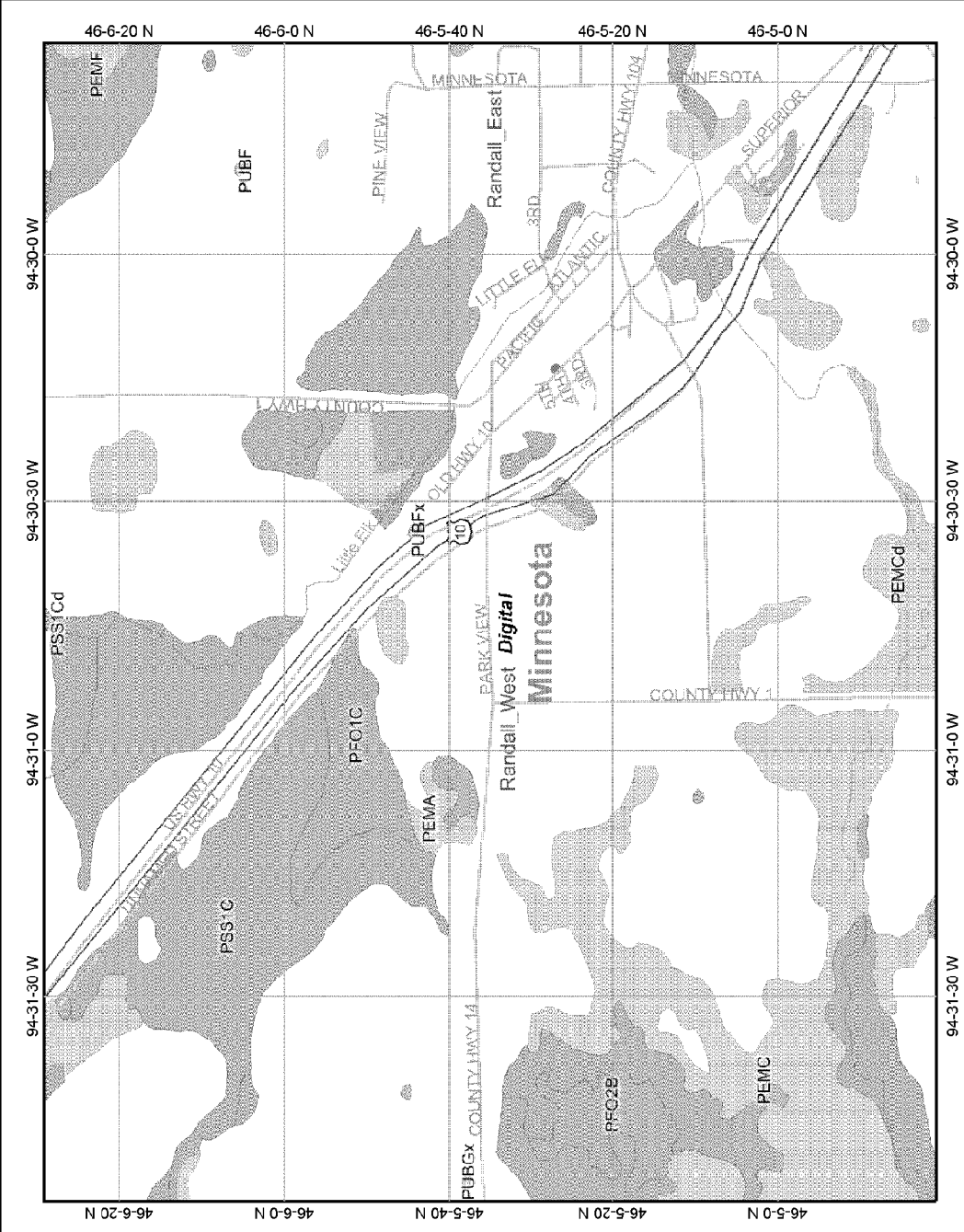
SITE RANKING: 12

RANDALL CWI Well Map



Minnesota Department of Health - Division of Environmental Health - Copyright © 2007

Randall Wetland Map



Legend

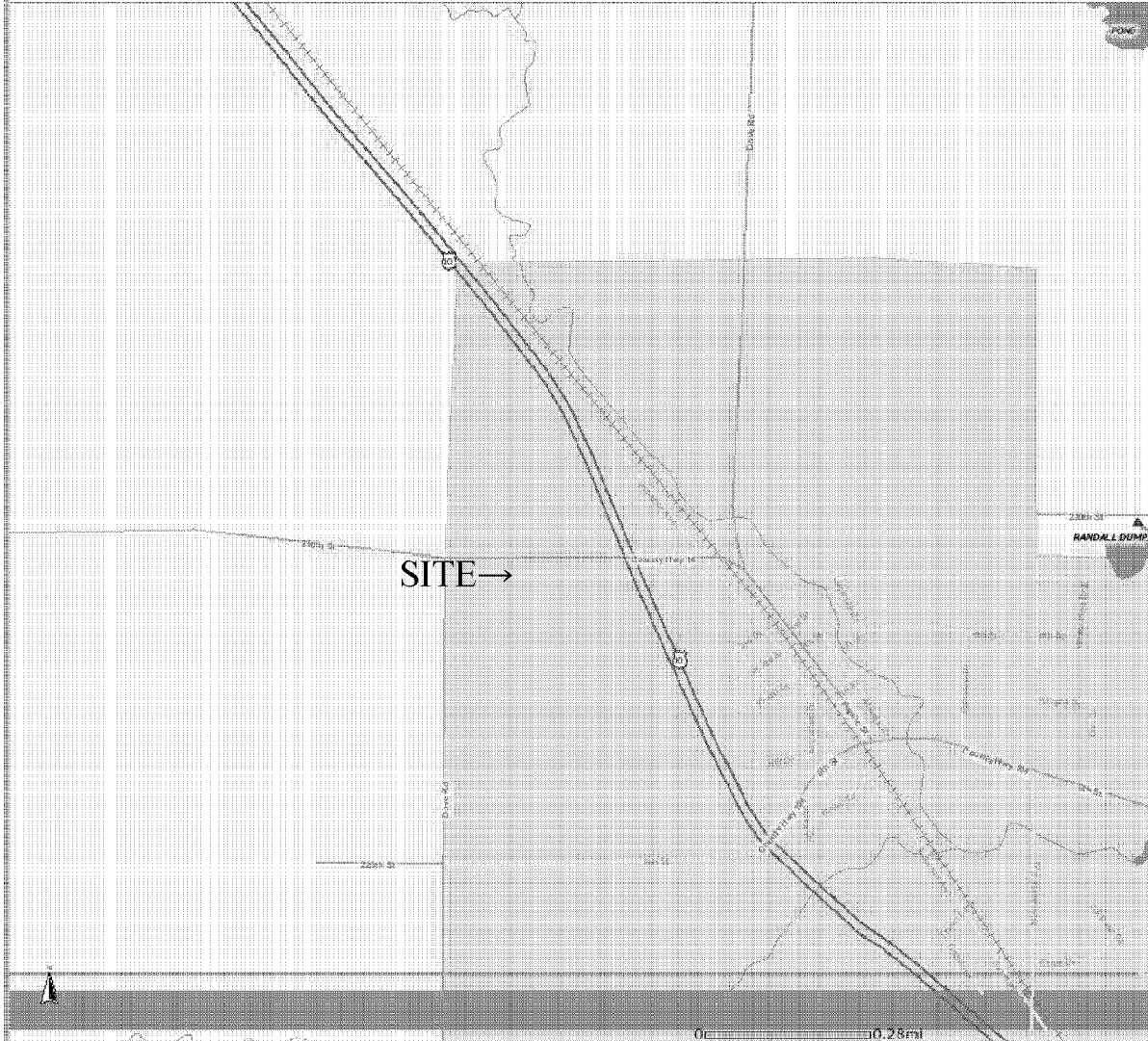
- OHio_wet_scan
 - 0
 - 1
- Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- Lower 48 Available Wetland Data
 - Non-Digital
 - Digital
 - No Data
 - Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:23,382

Map center: 46° 5' 35" N, 94° 30' 45" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Randall *What's In My Neighborhood* Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- NFRAP
- State Superfund
- CERCLIS
- Federal Superfund
- State Closed Landfills
- Voluntary Investigation & Cleanup
- ▲ RCRA T&D Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
224477

County Morrison
 Quad Randall West
 Quad ID 195D

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/13/1988
 Update Date 06/27/2006
 Received Date

<p>Well Name RANDALL TEST WELL</p> <p>Township Range Dir Section Subsections Elevation 1175 ft. 130 30 W 6 CCACCD Elevation Method 7.5 minute topographic map (+/- 5 feet)</p>	<p>Well Depth 114 ft. Depth Completed 111 ft. Date Well Completed</p> <p>Drilling Method --</p>																																																							
<p>Well Address RANDALL MN 56475</p>	<p>Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.</p> <p>Use Test well</p> <p>Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.</p>																																																							
<p>Geological Material</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;"></th> <th style="width:10%;">Color</th> <th style="width:10%;">Hardness</th> <th style="width:10%;">From</th> <th style="width:10%;">To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td></td><td></td><td>0</td><td>18</td></tr> <tr><td>QUICKSAND</td><td></td><td></td><td>18</td><td>40</td></tr> <tr><td>FINE SAND</td><td></td><td></td><td>40</td><td>45</td></tr> <tr><td>FINE SAND</td><td></td><td></td><td>45</td><td>50</td></tr> <tr><td>FINE SAND</td><td></td><td></td><td>50</td><td>55</td></tr> <tr><td>GRAVEL</td><td></td><td></td><td>55</td><td>60</td></tr> <tr><td>GRAVEL</td><td></td><td></td><td>60</td><td>72</td></tr> <tr><td>CLAY</td><td>BLUE</td><td></td><td>72</td><td>94</td></tr> <tr><td>SAND</td><td></td><td></td><td>94</td><td>113</td></tr> <tr><td>IRON ORE</td><td></td><td></td><td>113</td><td>114</td></tr> </tbody> </table>		Color	Hardness	From	To	CLAY			0	18	QUICKSAND			18	40	FINE SAND			40	45	FINE SAND			45	50	FINE SAND			50	55	GRAVEL			55	60	GRAVEL			60	72	CLAY	BLUE		72	94	SAND			94	113	IRON ORE			113	114	<p>Casing Diameter 96 ft. Weight lbs./ft. Hole Diameter</p> <p>Open Hole from ft. to ft.</p> <p>Screen YES Make Type</p> <p>Diameter Slot/Gauze Length Set Between 15 96 ft. and 111 ft.</p> <p>Static Water Level ft. from Date Measured</p> <p>PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.</p> <p>Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)</p>
	Color	Hardness	From	To																																																				
CLAY			0	18																																																				
QUICKSAND			18	40																																																				
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SAND			94	113																																																				
IRON ORE			113	114																																																				
<p>REMARKS FIRST WELL BEAME TOO HIGH IN MN & FE.</p> <p>Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Information from owner Date 06/27/2006 System UTM - Nad83, Zone15, Meters X: 383133 Y: 5105728</p>	<p>Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP __ Volts Length of drop Pipe __ft. Capacity __g.p.m. Type Material</p>																																																							
<p>First Bedrock Precambrian Crystalline Roc Last Strat Precambrian Crystalline Roc</p> <p>Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock 113 ft.</p>	<p>Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Well Contractor Certification <u>United States Geological Survey</u> <u>USGS</u> <u>GOHOUTHDT, E.</u> License Business Name Lic. Or Reg. No. Name of Driller</p>																																																							
<p>County Well Index Online Report</p>	<p>224477</p>	<p>Printed 9/15/2008 HE-01205-07</p>																																																						

- **Richfield**

SITE SUMMARY

Site Name: Richfield

Fire Department: Richfield Fire Department
6700 Portland Ave.
Richfield, MN 55423

Site Contact: Brad Sveum, Fire Chief
612-243-4502

Training Location: Richfield ice arena, 636 E. 66th Street

Training Location Coordinates (X,Y): 479089.13, 4970143.5

Type of foam used in training: AFFF: 3M-brand historically used
Training Foam: National training foam

Foam training frequency: Approximately bi-annually

Foam use per training event: 30 to 40 gallons to cover all department shifts

Spent foam destination: Ground, storm sewer

Annual foam use: AFFF: Uncertain
Class A: 50 gallons

Nearest surface water: Legion Lake less than 1/8 mile east

Nearest wetland: Less than 1/8 mile east

Karst Area: Site is located in a covered karst area

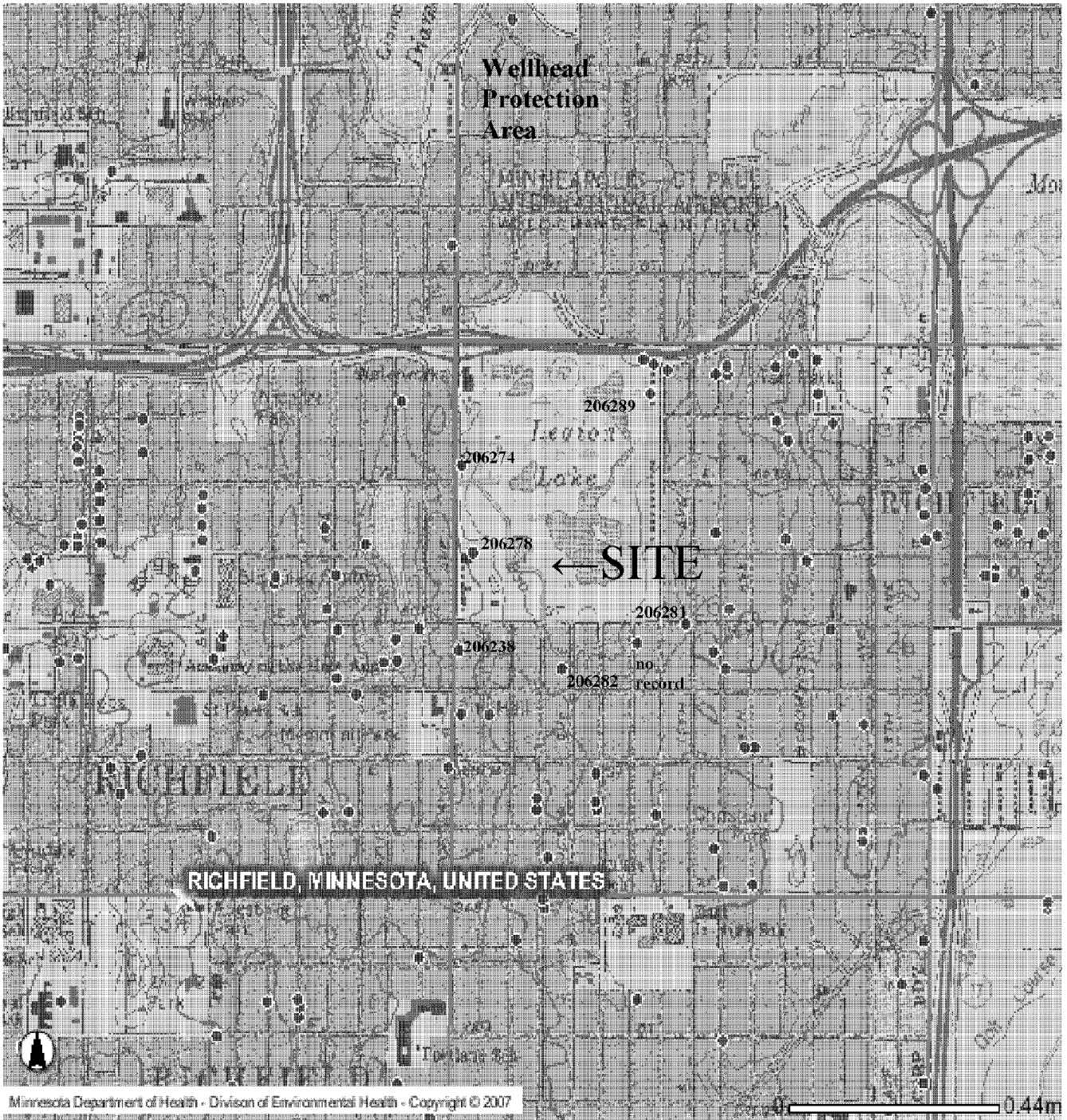
Nearest water well: Less than 1/4 mile to the west

Nearest Wellhead Protection Area: Training site located within a WPA

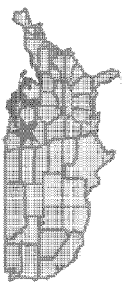
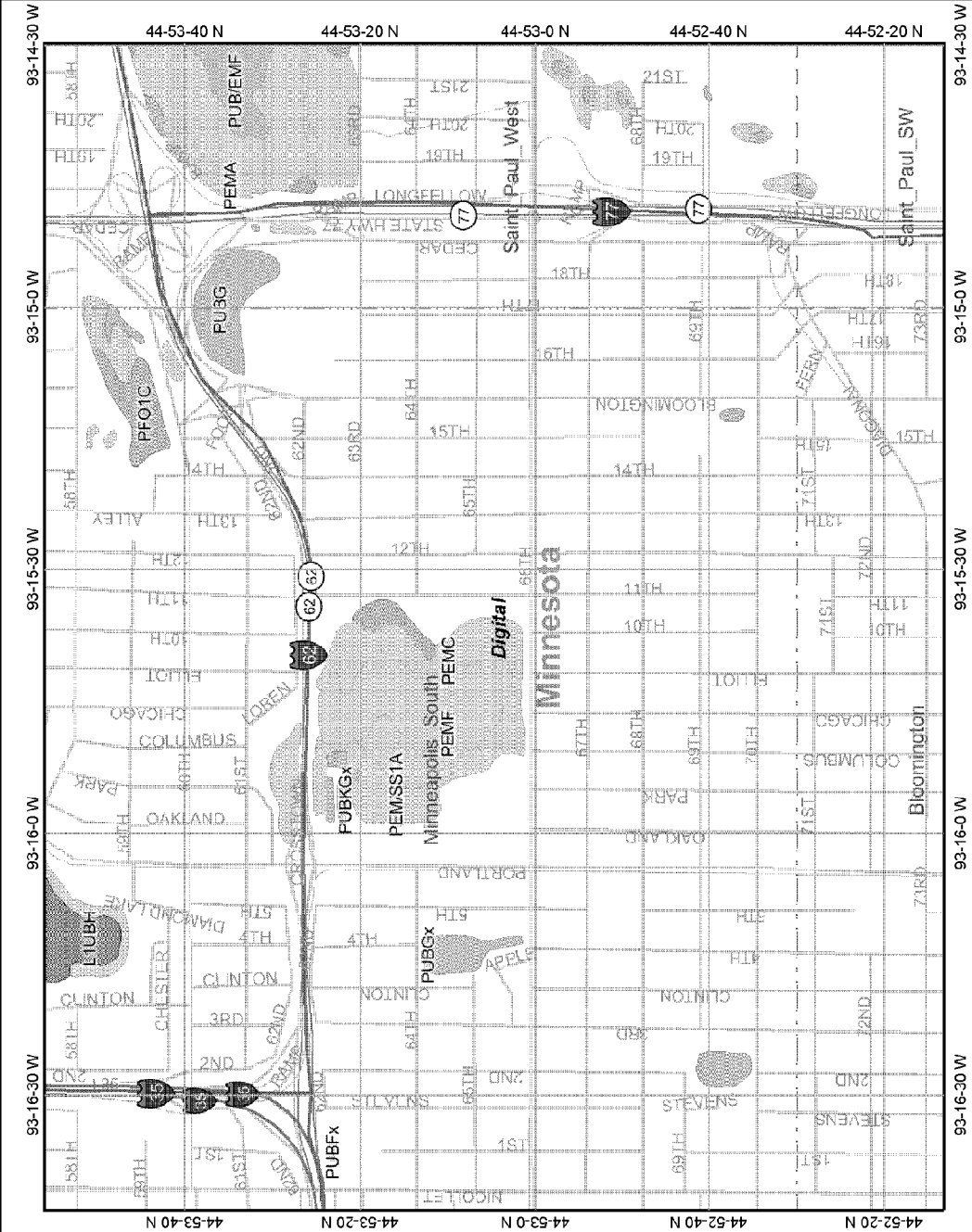
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 30

RICHFIELD CWI Well Map



Richfield Wetland Map



Legend

- OHio_wet_scan
- 0
- 1
- Out of range
- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:22,252



Map center: 44° 53' 5" N, 93° 15' 36" W

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Richfield What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
206274

County Hennepin
 Quad Minneapolis South
 Quad ID 104A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name OKERMAN AND HUNTSTEAD		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 23 24 W 26 BBCCCC Elevation Method 845 ft. 7.5 minute topographic map (+/- 5 feet)		49 ft.	49 ft.	11/30/1960
		Drilling Method --		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Commercial		
		Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		2 in. to 46 ft.	lbs./ft.	
		Open Hole from ft. to ft.		
		Screen YES Make JOHNSON Type		
		Diameter	Slot/Gauze	Length
		1.3	8	4
		Set Between 0 ft. and ft.		
		Static Water Level 30 ft. from Land surface Date Measured 11/30/1960		
		PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
Geological Material		Color	Hardness	From To
SAND				0 10
HARDPACKED SAND				10 18
SAND AND GRAVEL				18 49
Well Address 6339 PORTLAND AV S RICHFIELD MN				
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification N/A Date N/A				
System UTM - Nad83, Zone15, Meters X: 478873 Y: 4970493				
		Nearest Known Source of Contamination __feet __direction __type		
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number __ HP 0 Volts		
		Length of drop Pipe __ft. Capacity __g.p.m. Type Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
First Bedrock		Well Contractor Certification		
Last Strat Sand		Aamot Well Co. 27052		
Aquifer Quat. Water Table Aquifer		License Business Name Lic. Or Reg. No. Name of Driller		
Depth to Bedrock ft				
County Well Index Online Report		206274		Printed 9/10/2008 HE-01205-07

Minnesota Unique Well No.		County Hennepin		MINNESOTA DEPARTMENT OF HEALTH		Entry Date 08/24/1991					
206278		Quad Minneapolis South		WELL AND BORING RECORD		Update Date 09/11/1991					
		Quad ID 104A		MINNESOTA STATUTES CHAPTER 103I		Received Date					
Well Name LEGION POST 435				Well Depth 168 ft.		Depth Completed 168 ft.					
Township Range Dir Section Subsections Elevation 23 24 W 25 BCCBBA 846 ft.				Drilling Method --		Date Well Completed 06/16/1971					
Elevation Method 7.5 minute topographic map (+/- 5 feet)				Drilling Fluid --		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Address 6501 PORTLAND AV S RICHFIELD MN Geological Material Color Hardness From To SAND, CLAY, ROCK 0 72 SAND, GRAVEL 72 89 CLAY, GRAVEL 89 104 LIMEROCK 104 168				Use Commercial		From -ft. to Ft.					
				Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.				Casing Diameter 4 in. to 108 ft.		Weight lbs./ft.	
				Open Hole from ft. to ft.				Hole Diameter			
				Screen Make Type				Diameter		Slot/Gauze	
								Length		Set Between	
				Static Water Level 74 ft. from Land surface Date Measured 06/16/1971				PUMPING LEVEL (below land surface)		0 ft. after hrs. pumping 50 g.p.m.	
				Well Head Completion				Pitless adapter manufacturer Model			
								<input checked="" type="checkbox"/> Casing Protection		<input checked="" type="checkbox"/> 12 in. above grade	
								<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)			
				NO REMARKS				Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				Nearest Known Source of Contamination		_feet _direction _type					
Unique Number Verification N/A Date N/A				Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
System UTM - Nad83, Zone15, Meters X: 478910 Y: 4970239				Pump <input checked="" type="checkbox"/> Not Installed Date Installed		Manufacturer's name Model number HP 0 Volts					
				Length of drop Pipe _ft. Capacity _g.p.m. Type Material							
First Bedrock Platteville				Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Last Strat Platteville				Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Aquifer Platteville				Well Contractor Certification		Aamot Well Co. 27052					
Depth to Bedrock 104 ft.				License Business Name		Lic. Or Reg. No. Name of Driller					
County Well Index Online Report				206278		Printed 9/10/2008					
						HE-01205-07					

Minnesota Unique Well No.
206281

County Hennepin
 Quad Minneapolis South
 Quad ID 104A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 06/03/2004
 Received Date

Well Name SKELLY OIL CO Township Range Dir Section Subsections Elevation 840 ft. 23 24 W 26 CAAAAA Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 243 ft. Depth Completed 243 ft. Date Well Completed 10/20/1960 Drilling Method --																																																																															
Well Address RICHFIELD MN	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Commercial Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.																																																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>SAND</td><td>BROWN</td><td></td><td>0</td><td>60</td></tr> <tr><td>GRAVEL</td><td>GRAY</td><td></td><td>60</td><td>70</td></tr> <tr><td>CLAY, STONES</td><td>BROWN</td><td></td><td>70</td><td>90</td></tr> <tr><td>GRAVEL</td><td>GRAY</td><td></td><td>90</td><td>91</td></tr> <tr><td>SANDY CLAY</td><td>BROWN</td><td></td><td>91</td><td>128</td></tr> <tr><td>SANDY SHALE</td><td>LIGHT</td><td></td><td>128</td><td>150</td></tr> <tr><td>STICKY CLAY, STONES</td><td>GRAY</td><td></td><td>150</td><td>165</td></tr> <tr><td>CLAY</td><td>BLUE</td><td></td><td>165</td><td>190</td></tr> <tr><td>SAND + ROCK</td><td>LIGHT</td><td></td><td>190</td><td>200</td></tr> <tr><td>HEAVY GRAVEL</td><td>LIGHT</td><td></td><td>200</td><td>210</td></tr> <tr><td>HARD SAND</td><td>GRAY</td><td>HARD</td><td>210</td><td>212</td></tr> <tr><td>SHAKOPEE</td><td></td><td></td><td>212</td><td>243</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND	BROWN		0	60	GRAVEL	GRAY		60	70	CLAY, STONES	BROWN		70	90	GRAVEL	GRAY		90	91	SANDY CLAY	BROWN		91	128	SANDY SHALE	LIGHT		128	150	STICKY CLAY, STONES	GRAY		150	165	CLAY	BLUE		165	190	SAND + ROCK	LIGHT		190	200	HEAVY GRAVEL	LIGHT		200	210	HARD SAND	GRAY	HARD	210	212	SHAKOPEE			212	243	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>5 in. to</td> <td>205 ft.</td> <td>lbs./ft.</td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen Make Type <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> Static Water Level 73 ft. from Land surface Date Measured 10/20/1960 PUMPING LEVEL (below land surface) 77 ft. after hrs. pumping 30 g.p.m.	Casing Diameter	Weight	Hole Diameter	5 in. to	205 ft.	lbs./ft.	Diameter	Slot/Gauze	Length	Set Between				
Geological Material	Color	Hardness	From	To																																																																												
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Diameter	Slot/Gauze	Length	Set Between																																																																													
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 479616 Y: 4970032	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																																																															
First Bedrock Prairie Du Chien Group Last Strat Prairie Du Chien Group Aquifer Multiple Depth to Bedrock 212 ft.	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name FAIRBANKS-MORSE Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity 15 g.p.m. Type Submersible Material																																																																															
County Well Index Online Report	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Renner E.H. & Sons 27015 License Business Name Lic. Or Reg. No. Name of Driller																																																																															
206281 Printed 9/10/2008 HE-01205-07																																																																																

Minnesota Unique Well No.
206282

County Hennepin
 Quad Minneapolis South
 Quad ID 104A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name CAKERMAN AND HUNSTEAD Township Range Dir Section Subsections Elevation 23 24 W 26 CBADDA 835 ft. Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 50 ft. Depth Completed 50 ft. Date Well Completed 06/29/1960 Drilling Method --																																		
Well Address 6638 CHICAGO AV S RICHFIELD MN <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>SAND</td> <td></td> <td></td> <td>0</td> <td>21</td> </tr> <tr> <td>FINE SAND</td> <td>GRAY</td> <td></td> <td>21</td> <td>42</td> </tr> <tr> <td>SAND AND GRAVEL</td> <td></td> <td></td> <td>42</td> <td>50</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	SAND			0	21	FINE SAND	GRAY		21	42	SAND AND GRAVEL			42	50	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>2 in. to 47 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make Type <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>1.3</td> <td></td> <td>3</td> <td>0 ft. and ft.</td> </tr> </tbody> </table> Static Water Level 22 ft. from Land surface Date Measured 06/29/1960 PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	2 in. to 47 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	1.3		3	0 ft. and ft.
	Geological Material	Color	Hardness	From	To																														
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	1.3		3	0 ft. and ft.																															
	NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification N/A Date N/A System UTM - Nad83, Zone15, Meters X: 479206 Y: 4969902	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP 0 Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material																																	
First Bedrock Aquifer Quat. Water Table Aquifer Last Strat Sand Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification <table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Aamot Well Co.</td> <td style="text-align: center;">27052</td> <td></td> </tr> <tr> <td style="text-align: center;">License Business Name</td> <td style="text-align: center;">Lic. Or Reg. No.</td> <td style="text-align: center;">Name of Driller</td> </tr> </table>	Aamot Well Co.	27052		License Business Name	Lic. Or Reg. No.	Name of Driller																												
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County Well Index Online Report	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="text-align: center; font-size: 24pt;">206282</td> <td style="text-align: right; font-size: 18pt;">Printed 9/10/2008</td> </tr> <tr> <td></td> <td style="text-align: right; font-size: 10pt;">HE-01205-07</td> </tr> </table>	206282	Printed 9/10/2008		HE-01205-07																														
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	HE-01205-07																																		

Minnesota Unique Well No.
206283

County Hennepin
 Quad Minneapolis South
 Quad ID 104A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name WEEGMAN Township Range Dir Section Subsections Elevation 852 ft. 23 24 W 26 CBBBCC Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 50 ft. Depth Completed 50 ft. Date Well Completed 08/29/1960 Drilling Method --								
Well Address 6621 PORTLAND RICHFIELD MN Geological Material Color Hardness From To SAND 0 21 SAND BROWN 21 42 SAND AND GRAVEL BROWN 42 50	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use Domestic								
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:33%;">Casing Diameter</th> <th style="width:33%;">Weight</th> <th style="width:33%;">Hole Diameter</th> </tr> <tr> <td>2 in. to 47 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	2 in. to 47 ft.	lbs./ft.			
	Casing Diameter	Weight	Hole Diameter						
	2 in. to 47 ft.	lbs./ft.							
	Open Hole from ft. to ft. Screen Make Type								
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:25%;">Diameter</th> <th style="width:25%;">Slot/Gauze</th> <th style="width:25%;">Length</th> <th style="width:25%;">Set Between</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between				
	Diameter	Slot/Gauze	Length	Set Between					
Static Water Level 38 ft. from Land surface Date Measured 08/29/1960 PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 10 g.p.m.									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material									
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Well Contractor Certification <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Aamot Well Co.</td> <td style="width:50%; text-align: center;">27052</td> </tr> <tr> <td style="text-align: center;">License Business Name</td> <td style="text-align: center;">Lic. Or Reg. No.</td> </tr> <tr> <td colspan="2" style="text-align: right;">Name of Driller</td> </tr> </table>	Aamot Well Co.	27052	License Business Name	Lic. Or Reg. No.	Name of Driller				
Aamot Well Co.	27052								
License Business Name	Lic. Or Reg. No.								
Name of Driller									
First Bedrock Aquifer Quat. Water Table Aquifer Last Strat Sand-brown Depth to Bedrock ft.	County Well Index Online Report 206283 Printed 9/10/2008 HE-01205-07								

Minnesota Unique Well No.
206289

County Hennepin
 Quad Minneapolis South
 Quad ID 104A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
 Update Date 09/11/1991
 Received Date

Well Name FOLEY P_G Township Range Dir Section Subsections Elevation 825 ft. 23 24 W 26 BAACCA Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 50 ft. Depth Completed 50 ft. Date Well Completed 09/21/1960 Drilling Method --								
Well Address 6232 11TH AV S RICHFIELD MN Geological Material Color Hardness From To SAND BROWN 0 21 SAND GRAY 21 42 SAND AND GRAVEL BROWN 42 50	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.								
	Use Domestic								
	Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> <tr> <td>2 in. to 47 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </table>	Casing Diameter	Weight	Hole Diameter	2 in. to 47 ft.	lbs./ft.			
	Casing Diameter	Weight	Hole Diameter						
	2 in. to 47 ft.	lbs./ft.							
	Open Hole from ft. to ft. Screen YES Make Type								
	<table style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Diameter	Slot/Gauze	Length	Set Between				
	Diameter	Slot/Gauze	Length	Set Between					
Static Water Level 36 ft. from Land surface Date Measured 09/21/1960 PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 10 g.p.m.									
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)									
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number ___ HP ___ Volts Length of drop Pipe ___ft. Capacity ___g.p.m. Type Material									
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Well Contractor Certification Aamot Well Co. 27052 License Business Name Lic. Or Reg. No. Name of Driller									
First Bedrock Aquifer Quat. Water Table Aquifer Last Strat Sand-brown Depth to Bedrock ft.	County Well Index Online Report								
206289	Printed 9/10/2008 HE-01205-07								

- **Richmond**

SITE SUMMARY

Site Name: Richmond

Fire Department: Richmond Fire Department
45 Hall Avenue
Richmond, MN 56368

Site Contact: Chuck Merten, Fire Chief
320-597-2214

Training Location: Industrial lot, 3 lots west of the intersection of Main & 191st Avenue, on the north side of Main.

Training Location Coordinates (X,Y): 382469.71, 5034541.88

Type of foam used in training: AFFF: Ansulite

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, then to catchment pond

Annual foam use: AFFF: 60 to 90 gallons
Class A Silv-ex: 60 to 90 gallons
Other: Just started using HCT F-500 A-B foam

Nearest surface water: Approximately 1/4 mile east-northeast

Nearest wetland: Approximately 1/4 mile east-northeast

Karst Area: Site is not located in a karst area

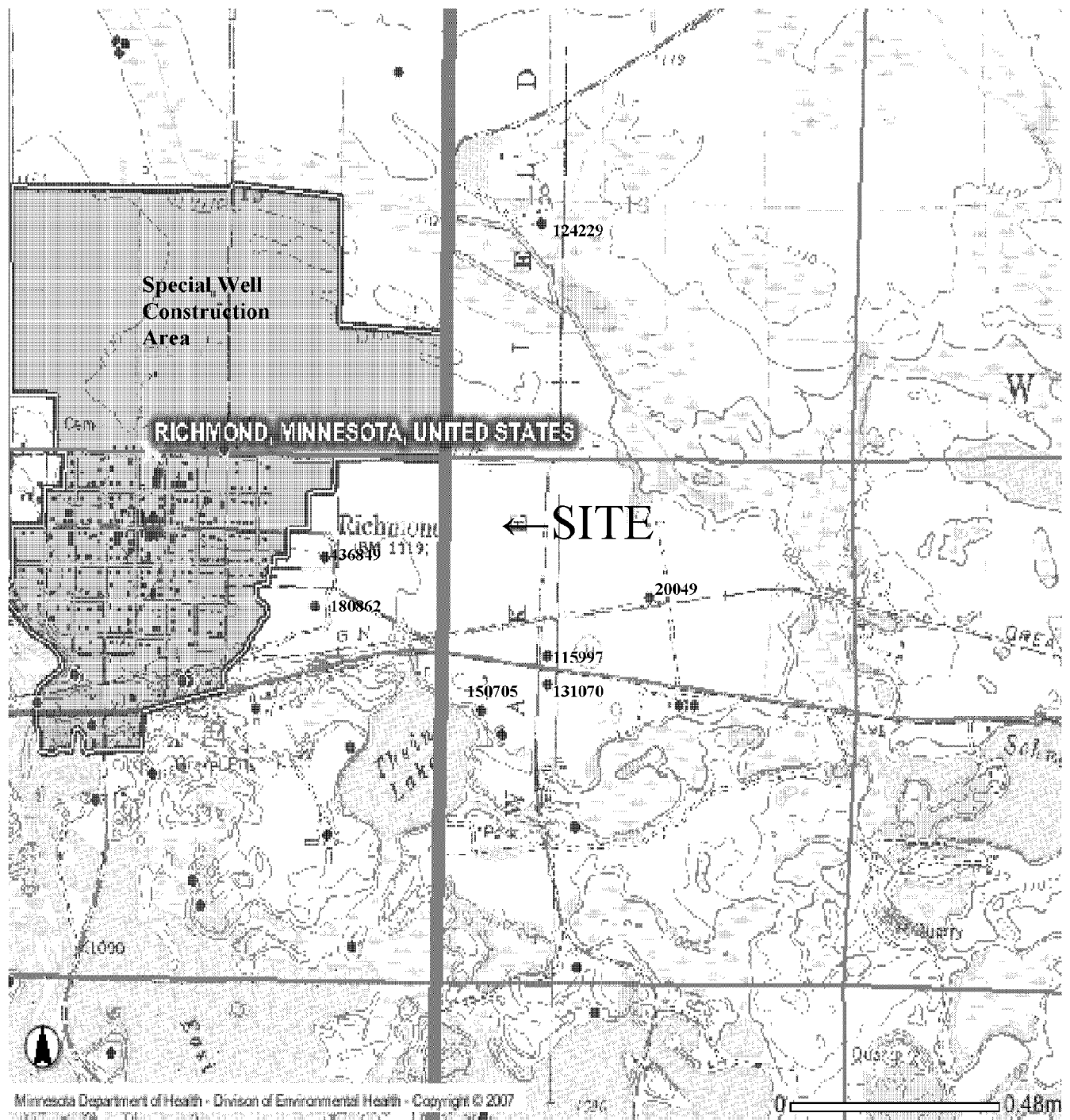
Nearest water well: Approximately 1/4 mile south and southeast

Nearest Wellhead Protection Area: Less than 1/4 mile northwest

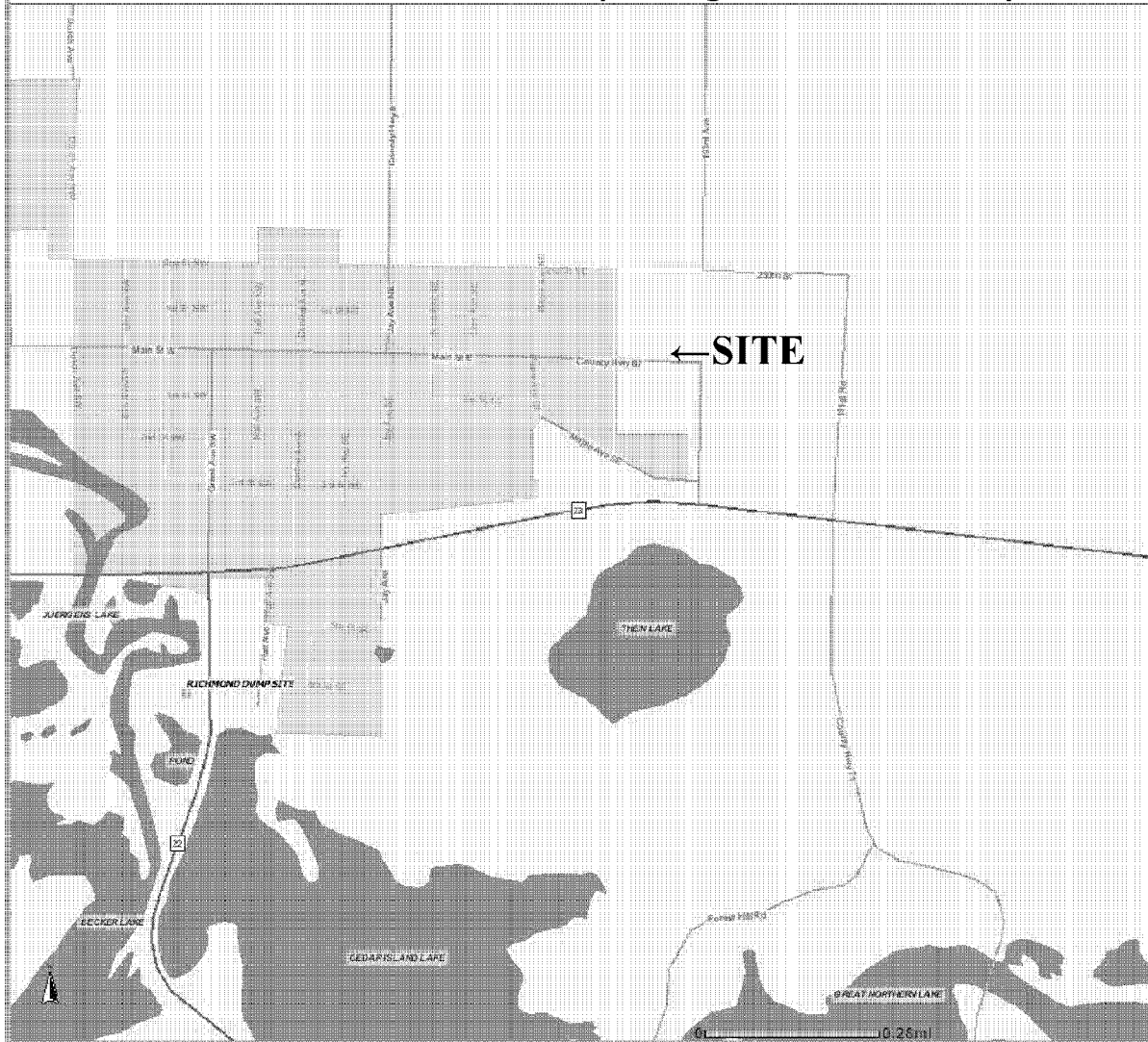
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 15

RICHMOND CWI Well Map



Richmond What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 Minnesota Pollution Control Agency

Sites

- Deleted State Superfund
- Permitted Solid Waste
- Unpermitted Dumps
- MFRAP
- State Superfund
- CERCLA
- Federal Superfund
- State Closed Landfill
- Voluntary Investigation & Cleanup
- ▲ RCRA TSD Facilities
- ▲ RCRA Investigation & Cleanup
- ▲ State Assessment

Minnesota Unique Well No.
20049

County Stearns
 Quad Cold Spring
 Quad ID 140B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 05/30/1991
 Update Date 12/23/2003
 Received Date

Well Name CS-1		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 123 30 W 19 ACBBBA Elevation Method 1111 ft. 7.5 minute topographic map (+/- 5 feet)		112 ft.	112 ft.	06/22/1988
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to Ft.		
Use Exploration				
Casing Type Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.				
Casing Diameter		Weight	Hole Diameter	
			6 in. to 60 ft.	
			3 in. to 112 ft.	
Open Hole from ft. to ft.				
Screen Make Type				
Diameter		Slot/Gauze	Length	Set Between
Geological Material		Color	Hardness	From To
SAND OUTWASH		BROWN	SOFT	0 53
SAPROLITH		BLUE	MEDIUM	53 98
GNEISSIC GRANITE			HARD	98 112
Static Water Level				
ft. from Date Measured				
PUMPING LEVEL (below land surface)				
ft. after hrs. pumping g.p.m.				
Well Head Completion				
Pitless adapter manufacturer Model				
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade				
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
REMARKS				
GAMMA LOGGED 6-21-88. M.G.S. NO. 2830.				
Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey		Method Digitized - scale 1:24,000 or larger (Digitizing Table)		
Unique Number Verification Information from owner		Date N/A		
System UTM - Nad83, Zone15, Meters		X: 383030 Y: 5034293		
Nearest Known Source of Contamination				
750 feet N direction Barnyard type				
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Pump <input checked="" type="checkbox"/> Not Installed Date Installed				
Manufacturer's name Model number HP 0 Volts				
Length of drop Pipe ft. Capacity g.p.m. Type Material				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification				
Boyles Bros drilling		E0053		
License Business Name		Lic. Or Reg. No.		Name of Driller
Cuttings Yes Borehole Geophysics Yes		Aquifer		
First Bedrock Cretaceous Regolith		Depth to Bedrock 53 ft.		
Last Strat RICHMOND GRANITE				
County Well Index Online Report		20049		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.

115997

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 08/02/1993
 Received Date

Well Name HART, GARY		Well Depth	Depth Completed	Date Well Completed		
Township Range Dir Section Subsections Elevation 123 30 W 19 BCADDC Elevation Method 1115 ft. 7.5 minute topographic map (+/- 5 feet)		52 ft.	52 ft.	07/15/1976		
Drilling Method Cable Tool						
Well Address RICHMOND MN 56368 Geological Material Color Hardness From To GRAVEL YELLOW MEDIUM 0 37 WATER SAND FINE YELLOW 37 40 MARL BLU/GRN SOFT 40 52		Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--		From -ft. to Ft.		
		Use Commercial				
		Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.				
		Casing Diameter		Weight	Hole Diameter	
		4 in. to 52 ft.		lbs./ft.		
		Open Hole from ft. to ft.				
		Screen YES Make Type slotted pipe				
		Diameter		Slot/Gauze	Length	Set Between
		Static Water Level 30 ft. from land surface Date Measured 07/15/1976				
PUMPING LEVEL (below land surface) 33 ft. after hrs. pumping 10 g.p.m.						
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)						
REMARKS SCREEN-6 IN. HOLE 4 IN. SLOTTED PIPE GRAVEL PACK.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)						
Unique Number Verification Information from owner Date N/A						
System UTM - Nad83, Zone15, Meters X: 382656 Y: 5034117						
		Nearest Known Source of Contamination _ft. _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 0 Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material				
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
First Bedrock Cretaceous Regolith Last Strat Cretaceous Regolith		Well Contractor Certification Jennings Well Co. 73321 JENNINGS, S. License Business Name Lic. Or Reg. No. Name of Driller Depth to Bedrock 40 ft.				
County Well Index Online Report		115997		Printed 9/12/2008 HE-01205-07		

Minnesota Unique Well No.
124229

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 02/13/1989
 Update Date 08/02/1993
 Received Date

Well Name TORBERG, MELVIN		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 123 30 W 18 CBAACA Elevation Method		37 ft.	35 ft.	06/29/1976	
7.5 minute topographic map (+/- 5 feet)		Drilling Method Bucket Auger			
Well Address RR 1 RICHMOND MN 56368 Geological Material Color Hardness From To DRY SAND & CLAY BROWN 0 6 FAIR FINE SAND GRAY 6 17 FAIR GRAVEL GRAY 17 37		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Abandoned Status Sealed			
		Casing Type Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 2 ft.			
		Casing Diameter		Weight	Hole Diameter
		12 in. to 31 ft.		lbs./ft.	
		Open Hole from ft. to ft.			
		Screen YES Make JOHNSON Type stainless steel			
		Diameter	Slot/Gauze	Length	Set Between
		12	100	4	31 ft. and 35 ft.
Static Water Level 8.8 ft. from Land surface Date Measured 06/29/1976					
PUMPING LEVEL (below land surface) 21.8 ft. after hrs pumping 357 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)					
Unique Number Verification Information from owner Date N/A					
System UTM - Nad83, Zone15, Meters X: 382634 Y: 5035440					
Nearest Known Source of Contamination __feet __direction __type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 0 Volts Length of drop Pipe __ft. Capacity __g.p.m. Type Material					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification Ingelside Eng 71278 PRAUGHT, J.W. License Business Name Lic. Or Reg. No. Name of Driller					
First Bedrock					
Last Strat Gravel (+larger)-gray		Aquifer Quat. Water Table Aquifer Depth to Bedrock ft			
County Well Index Online Report		124229		Printed 9/12/2008 HE-01205-07	

Minnesota Unique Well No.
131070

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 08/02/1993
 Received Date

Well Name NEU, LARRY		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 123 30 W 19 BCDADD Elevation Method 1118 ft. 7.5 minute topographic map (+/- 5 feet)		56 ft.	56 ft.	09/24/1976
Drilling Method Non-specified Rotary				
Drilling Fluid		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
--		From -ft. to ft.		
Use Domestic				
Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.				
Casing Diameter		Weight	Hole Diameter	
6 in. to 22 ft.		lbs./ft.		
Open Hole from ft. to ft.				
Screen YES Make JET STREAM Type plastic				
Diameter		Slot/Gauze	Length	Set Between
5		30	34	22 ft. and 56 ft.
Geological Material Color Hardness From To NO RECORD 0 56				
Static Water Level 20 ft. from Land surface Date Measured 09/24/1976				
PUMPING LEVEL (below land surface) 50 ft. after hrs. pumping 10 g.p.m.				
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)				
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Cuttings from 0 to ft. 0		
Unique Number Verification Name on mailbox Date N/A		Nearest Known Source of Contamination 135 feet S direction Septic tank/drain field type		
System UTM - Nad83, Zone15, Meters X: 382657 Y: 5034029		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 09/27/1976 Manufacturer's name AERMCTOR Model number SD12X50 HP 0.5 Volts 230 Length of drop Pipe 34 ft. Capacity 12 g.p.m. Type Submersible Material Galvanized				
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Well Contractor Certification Traut Well 73157 CLAUDE J. License Business Name Lic. Or Reg. No. Name of Driller				
First Bedrock Last Strat No Record		Aquifer Depth to Bedrock ft.		
County Well Index Online Report		131070		Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
150705

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 08/02/1993
 Received Date

Well Name HEMMESCH, LESTER Township Range Dir Section Subsections Elevation 123 30 W 19 BCDADD 1112 ft. Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 52 ft. Depth Completed 52 ft. Date Well Completed 05/17/1978 Drilling Method Non-specified Rotary
Well Address RICHMOND MN 56368 Geological Material Color Hardness From To GRAVEL COARSE YELLOW 0 35 MARL RED HARD 35 47 MARL GREEN HARD 47 52	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft. Casing Diameter Weight Hole Diameter 4 in. to 33 ft. lbs./ft. 7 in. to 52 ft. Open Hole from ft. to ft. Screen YES Make Type plastic Diameter Slot/Gauze Length Set Between 4 0 33 ft. and 52 ft. Static Water Level ft. from Date Measured PUMPING LEVEL (below land surface) 30 ft. after hrs. pumping 10 g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)
NO REMARKS Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 382414 Y: 5033950	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP 0 Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material
First Bedrock Cretaceous Regolith Aquifer Multiple Last Strat Cretaceous Regolith Depth to Bedrock 35 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Jennings Well Co. 73321 JENNINGS, S. License Business Name Lic. Or Reg. No. Name of Driller
County Well Index Online Report	150705 Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
180862

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 05/29/2002
 Received Date

Well Name RICHMOND BASEBALL ASSC.		Well Depth 163 ft.	Depth Completed 163 ft.	Date Well Completed 05/29/1981
Township Range Dir Section Subsections Elevation 123 31 W 24 ACAABC Elevation Method		1115 ft. 7.5 minute topographic map (+/- 5 feet)		
Drilling Method Non-specified Rotary		Drilling Fluid --		
Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		From -ft. to Ft.		
Use Domestic		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.		
Casing Diameter 4 in. to 83 ft.		Weight lbs./ft.	Hole Diameter 8 in. to 163 ft.	
Open Hole from ft. to ft.		Screen YES Make JET STREAM Type plastic		
Geological Material		Color	Hardness	From To
SAND		YELLOW	MEDIUM	0 20
SHALE		GRAY	MEDIUM	20 24
MARL & DECOMPOSED GRANITE		GREEN	SFT-HRD	24 150
GRANITE		GREEN	SFT-HRD	150 163
Well Address RICHMOND MN		Static Water Level 22 ft. from Land surface Date Measured 05/30/1981		
		PUMPING LEVEL (below land surface) 150 ft. after hrs. pumping 3 g.p.m.		
		Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
REMARKS *23-31-24 ACAABC ELEV 1115+-5 *41-A		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Neat Cement from 3 to 30 ft. 0		
Unique Number Verification Name on mailbox Date N/A		Nearest Known Source of Contamination 150 feet E direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
System UTM - Nad83, Zone15, Meters X: 381803 Y: 5034236		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP 0 Volts Length of drop Pipe ft. Capacity g.p.m. Type Material		
First Bedrock Cretaceous,Undif. Aquifer Multiple		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Last Strat Precambrian Crystalline Roc Depth to Bedrock 20 ft		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
County Well Index Online Report		Well Contractor Certification Jennings Well Co. 73321 JENNINGS S. License Business Name Lic. Or Reg. No. Name of Driller		180862 Printed 9/12/2008 HE-01205-07

Minnesota Unique Well No.
436849

County Stearns
 Quad Richmond
 Quad ID 141A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 05/07/1991
 Update Date 07/22/1993
 Received Date

Well Name RICHMOND APARTMENTS		Well Depth 42 ft.	Depth Completed 40 ft.	Date Well Completed 07/15/1988	
Township Range Dir Section Subsections Elevation 123 31 W 24 ABDADC Elevation Method		1119 ft. 7.5 minute topographic map (+/- 5 feet)			
Well Address 466 1ST ST SE RICHMOND MN 56368 Geological Material SAND MARL Color YELLOW LT. GRY Hardness SOFT From 0 To 30 To 30 42		Drilling Method Non-specified Rotary			
		Drilling Fluid Bertonite	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Use Domestic			
		Casing Type Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.			
		Casing Diameter		Weight	Hole Diameter
		4 in. to 25 ft.		lbs./ft.	
		4 in. to 40 ft.		lbs./ft.	
		Open Hole from ft. to ft.			
		Screen YES Make CERTAINTTEED Type plastic			
		Diameter 4		Slot/Gauze 23	Length 5
Static Water Level 22 ft. from Land surface Date Measured 07/15/1988					
PUMPING LEVEL (below land surface) 25 ft. after hrs. pumping 15 g.p.m.					
Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)		Grout Material: Neat Cement from 0 to 22 ft. 0			
Unique Number Verification Name on mailbox Date N/A		Nearest Known Source of Contamination __feet __direction __type			
System UTM - Nad83, Zone15, Meters X: 381840 Y: 5034418		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 0 Volts Length of drop Pipe __ft. Capacity __g.p.m. Type Material			
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
First Bedrock Cretaceous Regolith Aquifer Quat. Water Table Aquifer Last Strat Cretaceous Regolith Depth to Bedrock 30 ft		Well Contractor Certification Jennings Well Co 73321 NORDMANN, M. License Business Name Lic. Or Reg. No. Name of Driller			
County Well Index Online Report		436849		Printed 9/12/2008 HE-01205-07	

- **Rosemount**

SITE SUMMARY

Site Name: Rosemount

Fire Department: Rosemount Fire Department
2875 145th Street West
Rosemount, MN 55068

Site Contact: Scott Aker, Fire Chief
651-322-2066

Training Location: 14700 Shannon Parkway, Rosemount

Training Location Coordinates (X,Y): 488446.7, 4953651.29

Type of foam used in training: AFFF: unsure of brand, no longer used. Received expired foam for training from Flint Hills Refinery in the past, not sure of brand. Likely that some time in the past foam by 3M was used.
Training foam: unsure of brand, no longer used

Foam training frequency: Annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground, storm sewer, sanitary sewer

Annual foam use: AFFF (historic use): not sure
Training foam (historic use): not sure
Other (HCT F-500 A/B foam): 5 to 15 gallons

Nearest surface water: Unnamed ponds 1/4 to 1 mile to the west, southwest and southeast

Nearest wetland: 1/4 to 1 mile northwest

Karst Area: Site is located in a covered karst area.

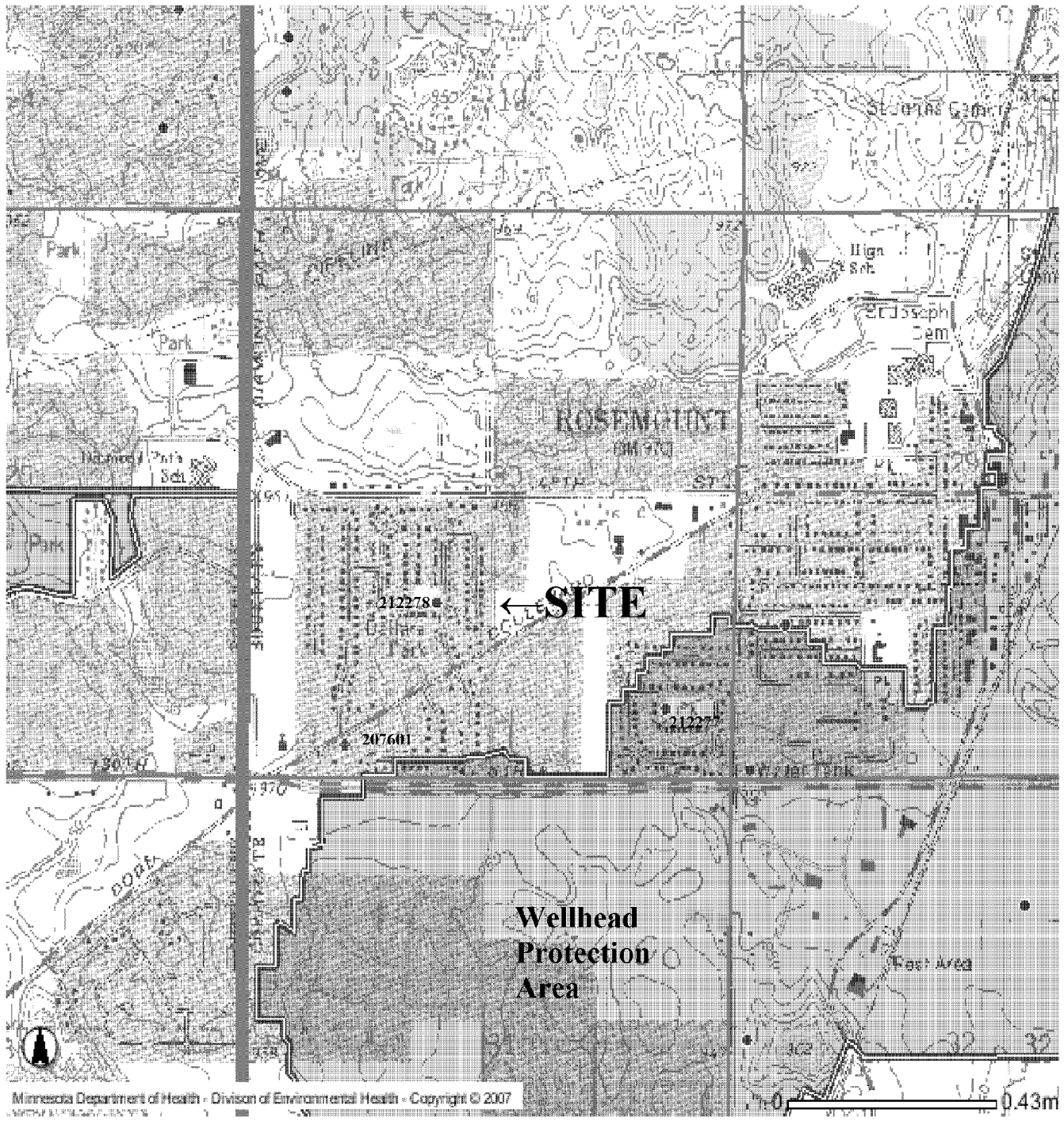
Nearest water well: Less than 1/4 mile west

Nearest Wellhead Protection Area: 1/4 to 1/3 mile southeast

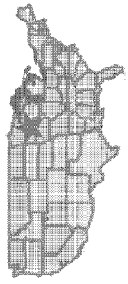
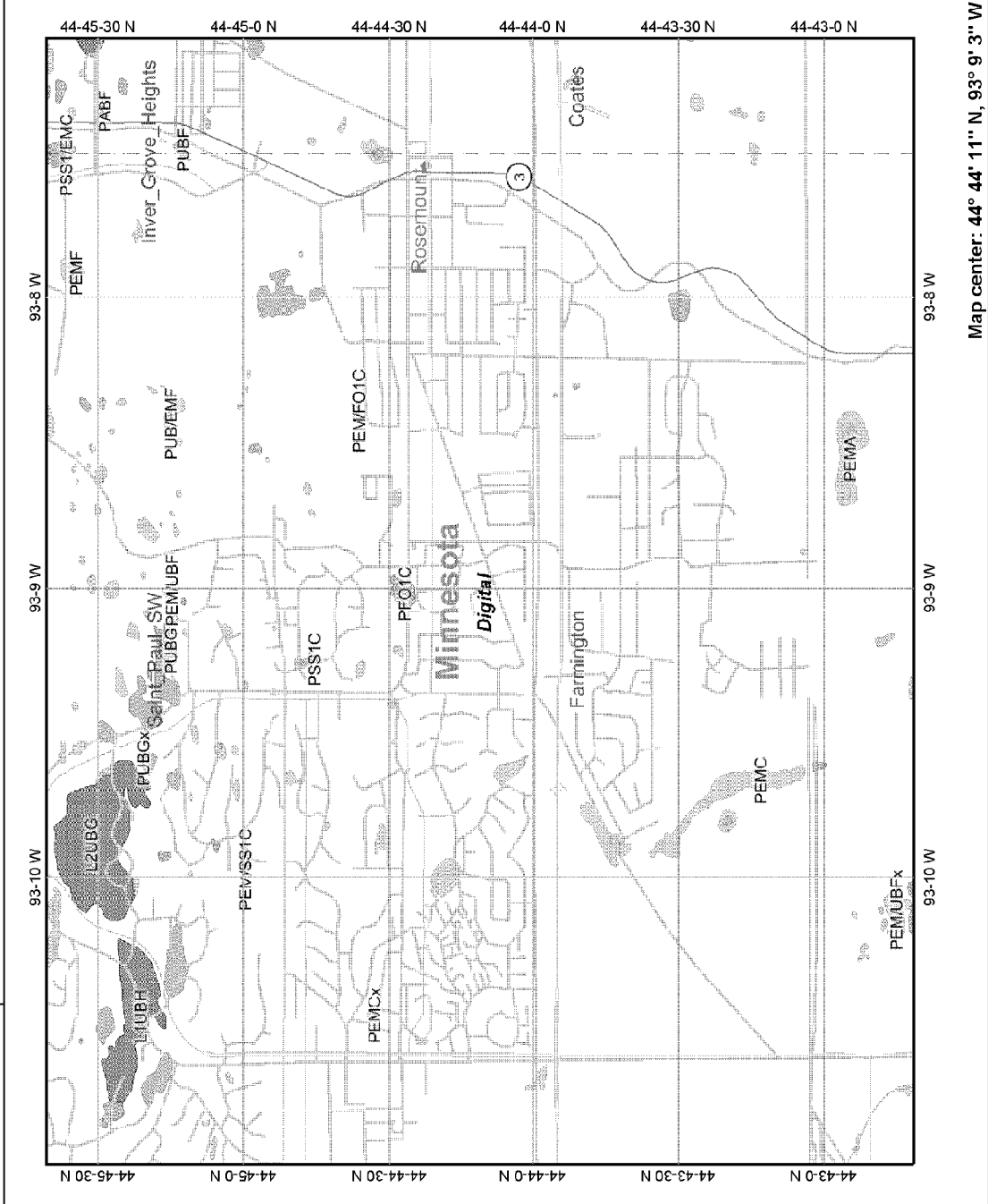
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 19

ROSEMOUNT CWI Well Map



Rosemount Wetland Map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

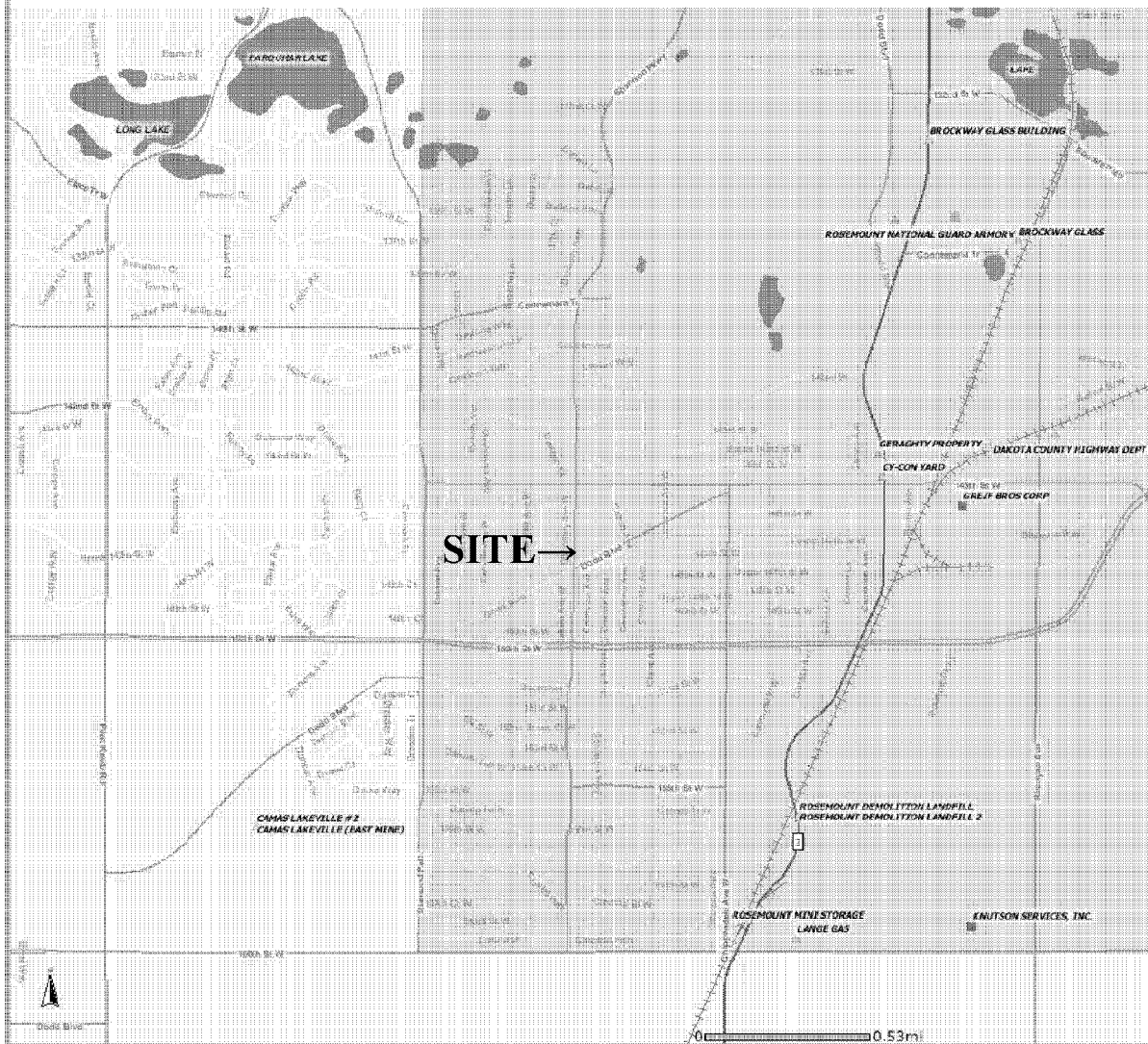


Scale: 1:38,816

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Map center: 44° 44' 11" N, 93° 9' 3" W

Rosemount What's In My Neighborhood Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

Minnesota Pollution Control Agency

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - ▲ Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
212277

County: Dakota
 Quad: Farmington
 Quad ID: 88E

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 07/10/1989
 Update Date: 03/27/2006
 Received Date:

Well Name ROSEMCUNT 5		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 115 19 W 30 DDBDDC Elevation Method 956 ft. 7.5 minute topographic map (+/- 5 feet)		490 ft.	490 ft.	
		Drilling Method Cable Tool		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Commercial		
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		10 in. to ft.	lbs./ft.	
		8 in. to ft.	lbs./ft.	
		Open Hole from 399 ft. to 490 ft.		
		Screen NO Make Type		
		Diameter	Slot/Gauze	Length
				Set Between
		Static Water Level		
		ft. from Date Measured		
		PUMPING LEVEL (below land surface)		
		ft. after hrs. pumping g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
REMARKS FORMERLY ROSEMOUNT TOWNSHIP NO.2 WELL ABANDONED. 50 TO 75 FT. SOUTH NO.4.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)				
Unique Number Verification Information from owner Date N/A				
System UTM - Nad83, Zone15, Meters X: 488980 Y: 4953367		Nearest Known Source of Contamination		
		_ft. _direction _type		
		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
		Manufacturer's name Model number __ HP 0 Volts		
		Length of drop Pipe _ft. Capacity 130_g.p.m. Type Submersible Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
		Minnesota Department of Health MDH		
		License Business Name Lic. Or Reg. No. Name of Driller		
County Well Index Online Report		212277		Printed 9/16/2008 HE-01205-07

Minnesota Unique Well No.
212278

County: Dakota
 Quad: Farmington
 Quad ID: 88E

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 12/27/1989
 Update Date: 03/27/2006
 Received Date:

Well Name ROSEMCUNT 6		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 115 19 W 30 CADCBA Elevation Method 962 ft. 7.5 minute topographic map (+/- 5 feet)		482 ft.	482 ft.	
		Drilling Method Cable Tool		
		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		--	From -ft. to Ft.	
		Use Abandoned Status Sealed		
		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.		
		Casing Diameter	Weight	Hole Diameter
		24 in. to 182 ft.	lbs./ft.	
		16 in. to 398 ft.	lbs./ft.	
		Open Hole from 398 ft. to 482 ft.		
		Screen NO	Make	Type
		Diameter	Slot/Gauze	Length
				Set Between
		Static Water Level		
		ft. from Date Measured		
		PUMPING LEVEL (below land surface)		
		ft. after hrs. pumping g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
REMARKS FORMERLY ROSEMOUNT TOWNSHIP NO.3. WELL SEALED 11-18-1997 BY 71701. ORIGINAL USE MU - MUNICIPAL.		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Located Minnesota Geological Survey Method Digitization (Screen) - Map (1:24,000) Unique Number Verification Address verification Date 03/27/2006 System UTM - Nad83, Zone15, Meters X: 486237 Y: 4953670		Nearest Known Source of Contamination _ft. _direction _type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number HP 60 Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Turbine Material		
		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		Well Contractor Certification		
		Minnesota Department of Health		MDH
		License Business Name		Lic. Or Reg. No. Name of Driller
First Bedrock Prairie Du Chien Group Last Strat St. Lawrence		Aquifer Jordan Depth to Bedrock 179 ft.		
County Well Index Online Report		212278		Printed 9/16/2008 HE-01205-07

- **Sartell LeSauk**

SITE SUMMARY

Site Name: Sartell-LeSauk

Fire Department: Sartell-LeSauk Fire Department
220 4th Ave. S.
Sartell, MN 56377

Site Contact: Ken Heim, Fire Chief
320-260-6017
320-656-1407 fax

Training Location: Likely at fire hall, 220 4th Ave. S.

Training Location Coordinates (X,Y): 405757.66, 5051923.66

Type of foam used in training: AR-AFFF: Angus
Other: Dawn dish soap

Foam training frequency: Annually to bi-annually

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: AR-AFFF: "not much"
HiEx: 40 gallons

Nearest surface water: Mississippi River approximately 1/4 mile east

Nearest wetland: Less than 1/4 mile to the west and to the southeast

Karst Area: Site is not located in a karst area.

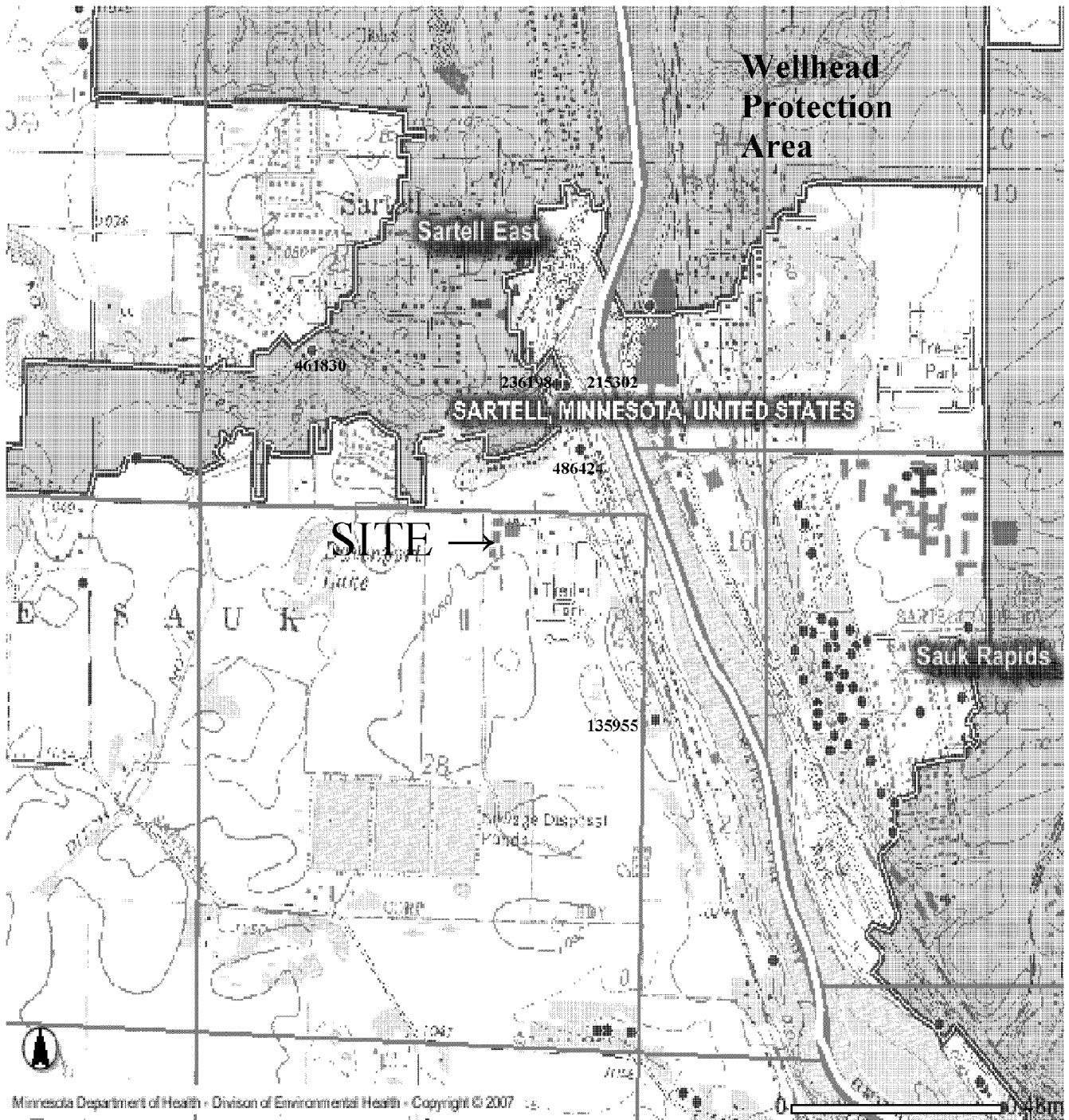
Nearest water well: Less than 1/4 mile northeast

Nearest Wellhead Protection Area: Less than 1/4 mile north

Nearest Source Water Assessment Area: More than 1 mile

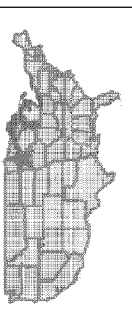
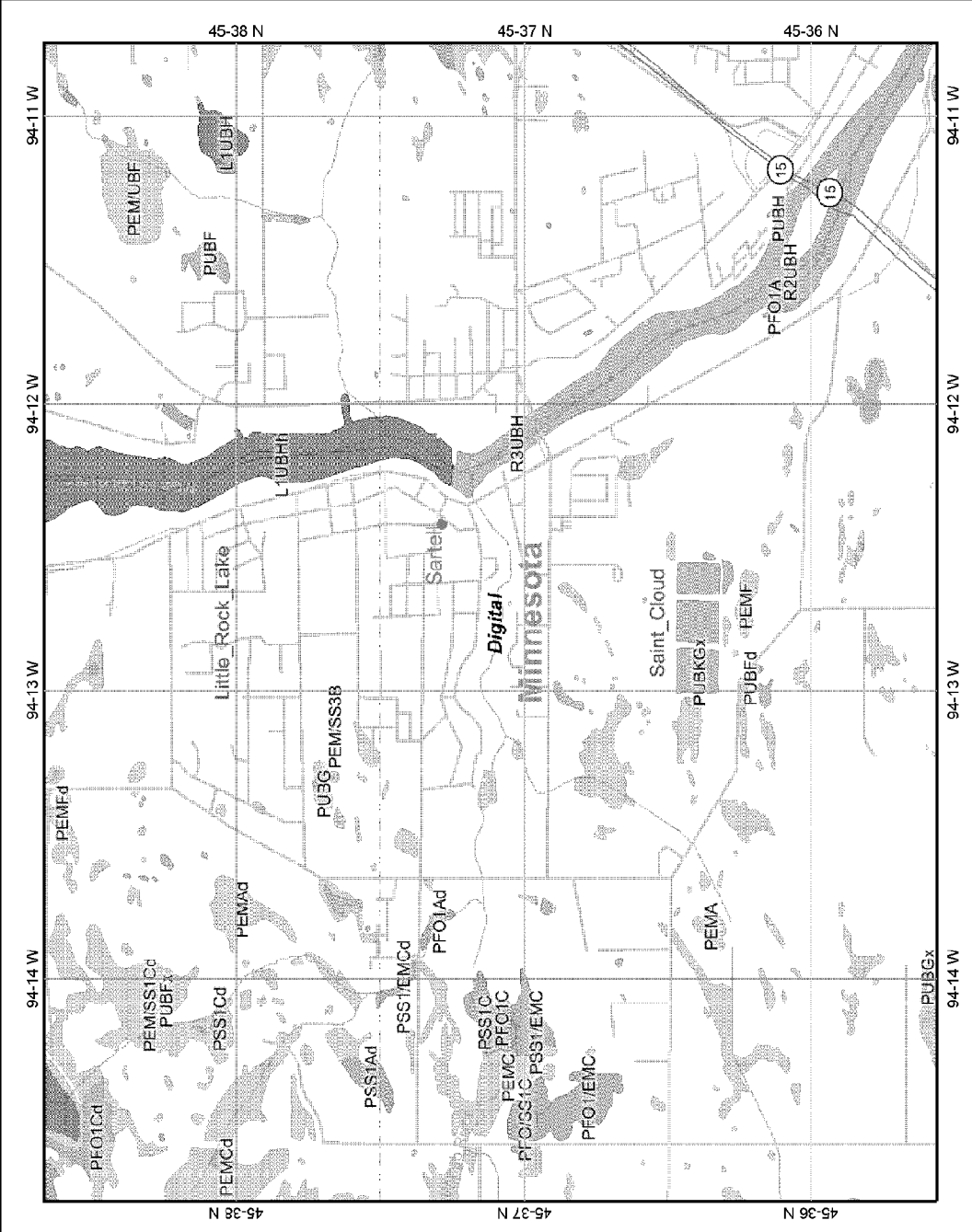
SITE RANKING: 15

SARTELL-LESAUK CWI Well Map



Minnesota Department of Health • Division of Environmental Health • Copyright © 2007

Sartell-LeSauk Wetland Map



Legend

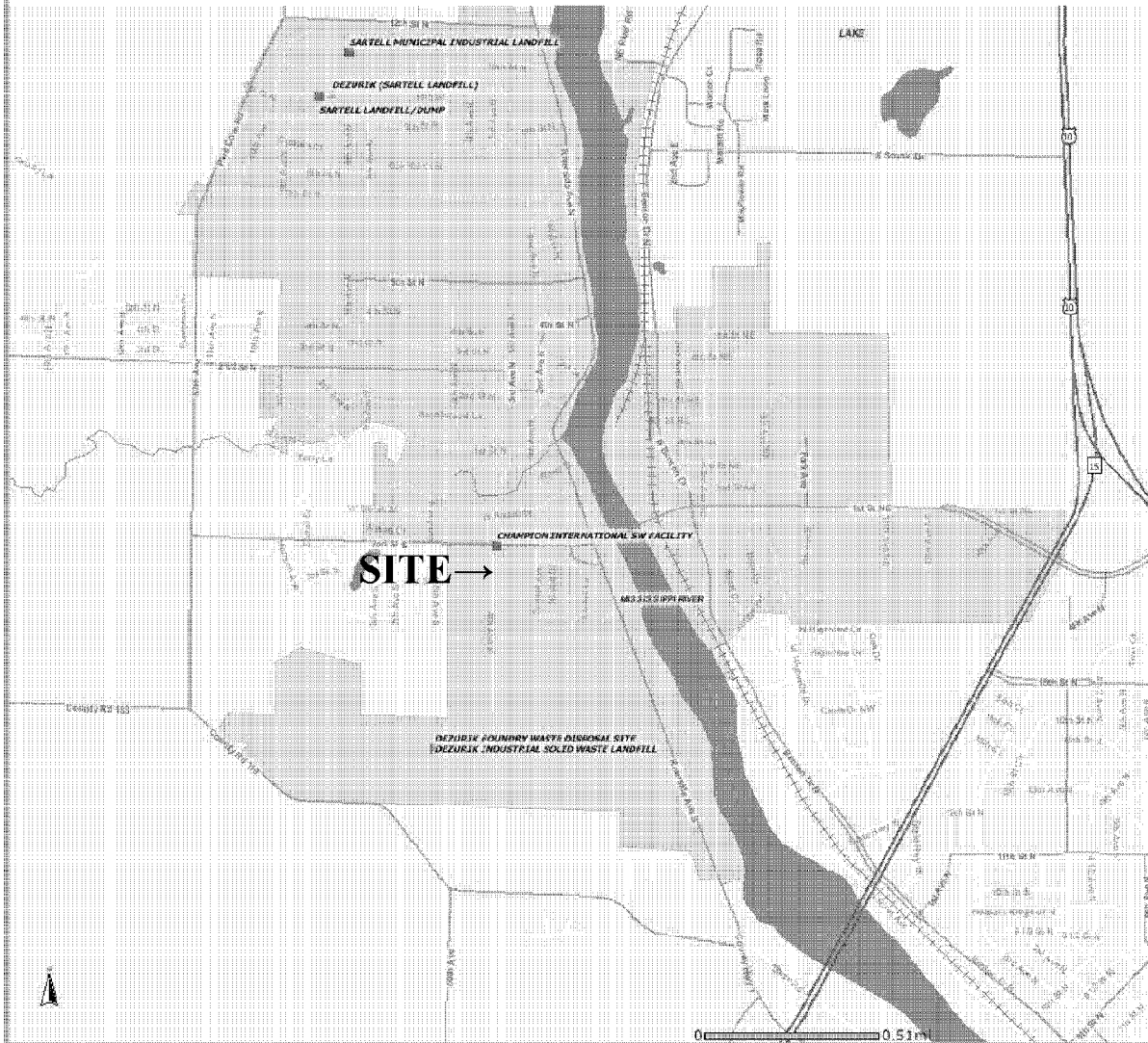
- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forest/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

Scale: 1:40,191

Map center: 45° 37' 7" N, 94° 12' 46" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Sartell-LeSauk *What's In My Neighborhood* Map



Disclaimer: Map and site information is believed to be accurate but accuracy is not guaranteed. No portion of the information should be considered to be, or used as, a legal document. The information is provided subject to the express condition that the user knowingly waives any and all claims for damages against MPCA that may arise from the use of this data.

 **Minnesota Pollution Control Agency**

- Sites**
- Deleted State Superfund
 - Permitted Solid Waste
 - Unpermitted Dumps
 - NFRAP
 - State Superfund
 - CERCLA
 - Federal Superfund
 - State Closed Landfill
 - Voluntary Investigation & Cleanup
 - ▲ RCRA T&D Facilities
 - ▲ RCRA Investigation & Cleanup
 - ▲ State Assessment

Minnesota Unique Well No.
135955

County Stearns
 Quad St. Cloud
 Quad ID 156C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 04/17/1988
 Update Date 07/30/1993
 Received Date

Well Name NEUMANN, DR. MYREL		Well Depth	Depth Completed	Date Well Completed	
Township Range Dir Section Subsections Elevation 125 28 W 27 BCBCDD Elevation Method 1054 ft. 7.5 minute topographic map (+/- 5 feet)		76 ft.	76 ft.	05/25/1977	
Drilling Method Air Rotary					
Well Address RIVER RD N ST CLOUD MN Geological Material Color Hardness From To SAND YELLOW SOFT 0 8 HARDPAN YELLOW HARD 8 62 GRAVEL + WATER 62 76		Drilling Fluid	Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
		--	From -ft. to Ft.		
		Use Domestic			
		Casing Type Steel (black or low carbon) Joint Welded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft.			
		Casing Diameter	Weight	Hole Diameter	
		6 in. to 76 ft.	lbs./ft.	6 in. to 76 ft.	
		Open Hole from 62 ft. to 76 ft.			
		Screen NO Make Type			
		Diameter	Slot/Gauze	Length	Set Between
		Static Water Level ft. from Date Measured			
PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.					
Well Head Completion Pitless adapter manufacturer Model					
<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade					
<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)					
NO REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table)					
Unique Number Verification Information from owner Date N/A					
System UTM - Nad83, Zone15, Meters X: 406359 Y: 5051384					
Nearest Known Source of Contamination _ft. _direction _type					
Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Pump <input checked="" type="checkbox"/> Not Installed Date Installed 01/00/1977					
Manufacturer's name GOULD Model number 25EL15412 HP 0.5 Volts					
Length of drop Pipe 13 ft. Capacity g.p.m. type Submersible Material Galvanized					
Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Well Contractor Certification					
First Bedrock		Aquifer Quaternary Undif.			
Last Strat Gravel (+larger)		Depth to Bedrock ft.			
Donabauer Well Co.		73061		DONABAUER G.	
License Business Name		Lic. Or Reg. No.		Name of Driller	
County Well Index Online Report		135955		Printed 9/19/2008 HE-01205-07	

Minnesota Unique Well No.

215302

County Stearns
 Quad St. Cloud
 Quad ID 156C

MINNESOTA DEPARTMENT OF HEALTH
**WELL AND BORING
 RECORD**

Entry Date 04/17/1988
 Update Date 02/25/2008
 Received Date

Minnesota Statutes Chapter 103I

Well Name SARTELL 1		Well Depth	Depth Completed	Date Well Completed
Township Range Dir Section Subsections Elevation 125 28 W 21 DDBABB Elevation Method 1017 ft. 7.5 minute topographic map (+/- 5 feet)		66 ft.	64 ft.	00/00/1958
Drilling Method --		Drilling Fluid --		
Well Address SARTELL MN 56377		Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft.		
Geological Material		Use Abandoned Status Sealed		
Color Hardness From To		Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below ft.		
FINE SAND 0 5		Casing Diameter Weight Hole Diameter		
CLAY, ROCKS, AND WATER 5 22		12 in. to 49 ft. lbs./ft.		
CLAY 22 35		Open Hole from ft. to ft.		
DIRTY GRAVEL & FINE SAND 35 39		Screen Make Type		
SAND AND GRAVEL 39 54		Diameter Slot/Gauze Length Set Between		
MARL 64 56		Static Water Level		
		22 ft. from land surface Date Measured 1958		
		PUMPING LEVEL (below land surface)		
		32 ft. after hrs. pumping 415 g.p.m.		
		Well Head Completion		
		Pitless adapter manufacturer Model		
		<input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade		
		<input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)		
REMARKS		Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
NURE NO.602176. WELL DRILLED BY MEAD WELL CO. FROM GRAND RAPIDS. WELL IS LOCATED IN THE ENTRANCE TO THE CITY PARK, IN THE PUMPHOUSE. WELL SEALED 10-17-2003 BY 73646 ORIGINAL USE PC - COMMUNITY SUPPLY		Nearest Known Source of Contamination _ft. _direction _type		
Located Minnesota Geological Survey Method GPS SA On (averaged)		Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Unique Number Verification Information from owner Date N/A		Pump <input checked="" type="checkbox"/> Not Installed Date Installed		
System UTM - Nad83, Zone15, Meters X: 408030 Y: 5052399		Manufacturer's name Model number __ HP _ Volts Length of drop Pipe _ft. Capacity _g.p.m. Type Material		
First Bedrock Cretaceous Regolith Aquifer Quat. Buried Artes. Aquifer		Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Last Strat Cretaceous Regolith Depth to Bedrock 64 ft.		Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
County Well Index Online Report		Well Contractor Certification		
		United States Geological Survey USGS		
		License Business Name Lic. Or Reg. No. Name of Driller		
		215302 Printed 9/19/2008		
		HE-01205-07		

Minnesota Unique Well No.
236198

County Stearns
 Quad St. Cloud
 Quad ID 156C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 09/08/1992
 Update Date 02/25/2008
 Received Date

Well Name SARTELL 2 Township Range Dir Section Subsections Elevation 1016 ft. 125 28 W 21 DDBBAA Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 64 ft. Depth Completed 64 ft. Date Well Completed 00/00/1959 Drilling Method --														
Well Address SARTELL MN 56377	Drilling Fluid -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Abandoned Status Sealed Casing Type Steel (black or low carbon) Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.														
Geological Material FINE SAND CLAY, ROCKS, AND WATER CLAY DIRTY GRAVEL & FINE SAND SAND AND GRAVEL MARL	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>12 in. to 39 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make Type <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td>25</td> <td>39 ft. and 64 ft.</td> </tr> </tbody> </table> Static Water Level ft. from Date Measured PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m. Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	12 in. to 39 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	0		25	39 ft. and 64 ft.
Casing Diameter	Weight	Hole Diameter													
12 in. to 39 ft.	lbs./ft.														
Diameter	Slot/Gauze	Length	Set Between												
0		25	39 ft. and 64 ft.												
REMARKS USED WELL LOG FROM WELL NO.1 WHICH IS 25 FT. TO THE EAST. WELL SEALED 12-23-1999 BY / 1536 ORIGINAL USE PC - COMMUNITY SUPPLY Located Minnesota Geological Survey Method GPS SA On (averaged) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 408000 Y: 5052402	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed Manufacturer's name Model number __ HP 0 Volts Length of drop Pipe __ft. Capacity 400_g.p.m Type Submersible Material														
First Bedrock Cretaceous Regolith Last Strat Cretaceous Regolith Aquifer Qual. Buried Artes. Aquifer Depth to Bedrock 64 ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Minnesota Geological Survey MGS License Business Name Lic. Or Reg. No. Name of Driller														
County Well Index Online Report	236198 Printed 9/19/2008 HE-01205-07														

Minnesota Unique Well No.
461830

County Stearns
 Quad St. Cloud
 Quad ID 156C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 07/20/1992
 Update Date 07/30/1993
 Received Date

Well Name GALLIFO, WILLIAM Township Range Dir Section Subsections Elevation 1040 ft. 125 28 W 21 CACCBC Elevation Method 7.5 minute topographic map (+/- 5 feet)	Well Depth 60 ft. Depth Completed 60 ft. Date Well Completed 05/10/1990 Drilling Method Non-specified Rotary																									
Well Address 808 1ST ST N SARTELL MN 56377 <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>CLAY</td> <td>BROWN</td> <td>HARD</td> <td>0</td> <td>27</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>27</td> <td>32</td> </tr> <tr> <td>CLAY</td> <td>GRAY</td> <td>HARD</td> <td>32</td> <td>53</td> </tr> <tr> <td>SAND</td> <td>BROWN</td> <td>SOFT</td> <td>53</td> <td>60</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY	BROWN	HARD	0	27	SAND	BROWN	SOFT	27	32	CLAY	GRAY	HARD	32	53	SAND	BROWN	SOFT	53	60	Drilling Fluid Bertonite Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Steel (black or low carbon) Joint Threaded Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 0 ft.
	Geological Material	Color	Hardness	From	To																					
	CLAY	BROWN	HARD	0	27																					
	SAND	BROWN	SOFT	27	32																					
	CLAY	GRAY	HARD	32	53																					
SAND	BROWN	SOFT	53	60																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 56 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type stainless steel	Casing Diameter	Weight	Hole Diameter	4 in. to 56 ft.	lbs./ft.		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>20</td> <td>4</td> <td>56 ft. and 60 ft.</td> </tr> </tbody> </table> Static Water Level 27 ft. from Land surface Date Measured 05/10/1990 PUMPING LEVEL (below land surface) 0 ft. after hrs. pumping 30 g.p.m.	Diameter	Slot/Gauze	Length	Set Between	4	20	4	56 ft. and 60 ft.											
Casing Diameter	Weight	Hole Diameter																								
4 in. to 56 ft.	lbs./ft.																									
Diameter	Slot/Gauze	Length	Set Between																							
4	20	4	56 ft. and 60 ft.																							
NO REMARKS	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																									
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 405108 Y: 5052505	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Known Source of Contamination 50 feet E direction Septic tank/drain field type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 05/11/1990 Manufacturer's name GRUNDFOS Model number 10S05-9 HP 0.5 Volts 230 Length of drop Pipe 42 ft. Capacity 10 g.p.m. Type Submersible Material Galvanized																									
First Bedrock Last Strat Sand-brown Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock ft.	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification G & M Drilling License Business Name 73542 Lic. Or Reg. No. MAJERUS, S. Name of Driller																									
County Well Index Online Report	461830 Printed 9/19/2008 HE-01205-07																									

Minnesota Unique Well No.
486424

County Stearns
 Quad St. Cloud
 Quad ID 156C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date 12/15/1991
 Update Date 07/30/1993
 Received Date

Well Name BOECKMAN, RALPH Township Range Dir Section Subsections Elevation 125 28 W 21 DDCCCC Elevation Method 1032 ft. 7.5 minute topographic map (+/- 5 feet)	Well Depth 76 ft. Depth Completed 75 ft. Date Well Completed 05/03/1991 Drilling Method Non-specified Rotary																																																						
Well Address 5 RIVERSIDE S SARTELL MN	Drilling Fluid Additive (+ Bentonite) Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use Domestic Casing Type Plastic Joint Glued Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 2 ft.																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Geological Material</th> <th>Color</th> <th>Hardness</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr><td>CLAY</td><td>BROWN</td><td></td><td>0</td><td>19</td></tr> <tr><td>CLAY</td><td>GRAY</td><td></td><td>19</td><td>33</td></tr> <tr><td>CLAY</td><td>BROWN</td><td></td><td>33</td><td>36</td></tr> <tr><td>SAND SILTY</td><td>BROWN</td><td></td><td>36</td><td>39</td></tr> <tr><td>CLAY</td><td>BROWN</td><td></td><td>39</td><td>57</td></tr> <tr><td>SAND + GRAVEL</td><td>BROWN</td><td></td><td>57</td><td>76</td></tr> <tr><td>CLAY</td><td>BROWN</td><td></td><td>76</td><td>76</td></tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	CLAY	BROWN		0	19	CLAY	GRAY		19	33	CLAY	BROWN		33	36	SAND SILTY	BROWN		36	39	CLAY	BROWN		39	57	SAND + GRAVEL	BROWN		57	76	CLAY	BROWN		76	76	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Casing Diameter</th> <th>Weight</th> <th>Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 57 ft.</td> <td>lbs./ft.</td> <td></td> </tr> </tbody> </table> Open Hole from ft. to ft. Screen YES Make JOHNSON Type plastic <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Diameter</th> <th>Slot/Gauze</th> <th>Length</th> <th>Set Between</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>12</td> <td>4</td> <td>71 ft. and 75 ft.</td> </tr> </tbody> </table> Static Water Level ft. from Dale Measured PUMPING LEVEL (below land surface) 70 ft. after hrs. pumping 20 g.p.m.	Casing Diameter	Weight	Hole Diameter	4 in. to 57 ft.	lbs./ft.		Diameter	Slot/Gauze	Length	Set Between	4	12	4	71 ft. and 75 ft.
Geological Material	Color	Hardness	From	To																																																			
CLAY	BROWN		0	19																																																			
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SAND + GRAVEL	BROWN		57	76																																																			
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NO REMARKS	Well Head Completion Pitless adapter manufacturer Model <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)																																																						
Located Minnesota Geological Survey Method Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Information from owner Date N/A System UTM - Nad83, Zone15, Meters X: 406086 Y: 5052206	Grouting Information Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Neat Cement from 7 to 37 ft. 0 Grout Material: Bentonite from 37 to 60 ft. 0 Nearest Known Source of Contamination ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump <input checked="" type="checkbox"/> Not Installed Date Installed 07/10/1991 Manufacturer's name GRUNDFOS Model number __ HP 0.33 Volts 230 Length of drop Pipe 40 ft. Capacity __g.p.m. Type Submersible Material Plastic																																																						
First Bedrock Aquifer Quat. Buried Artes. Aquifer Last Strat Clay-brown Depth to Bedrock ft	Abandoned Wells Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification Traut M.J. Well Co. 71536 BRUCE/ROBBIE License Business Name Lic. Or Reg. No. Name of Driller																																																						
County Well Index Online Report	486424 Printed 9/19/2008 HE-01205-07																																																						

- **Wolverton**

SITE SUMMARY

Site Name: Wolverton

Fire Department: Wolverton Fire Department
PO Box 7
Wolverton, MN 56594

Site Contact: Mike Tracy, Fire Chief
218-995-2525

Training Location: Gravel road in front of fire hall at 301 Highway 75, Wolverton.

Training Location Coordinates (X,Y): 213825.98, 5163440.61

Type of foam used in training: Class B AFFF: Ansulite 3%
Class A: Silv-ex

Foam training frequency: Semi-annual

Foam use per training event: Less than 5 gallons

Spent foam destination: Ground

Annual foam use: Class B AFFF: Less than 1 gallon
Class A: Less than 1 gallon

Nearest surface water: Intermittent stream less than 1/4 southwest, which drains to the Red River located 1/4 to 1/3 mile west

Nearest wetland: 1/4 to 1/3 mile to the north and south

Karst Area: Site is not located in a karst area.

Nearest water well: 1/2 to 1 mile northwest

Nearest Wellhead Protection Area: More than 1 mile

Nearest Source Water Assessment Area: More than 1 mile

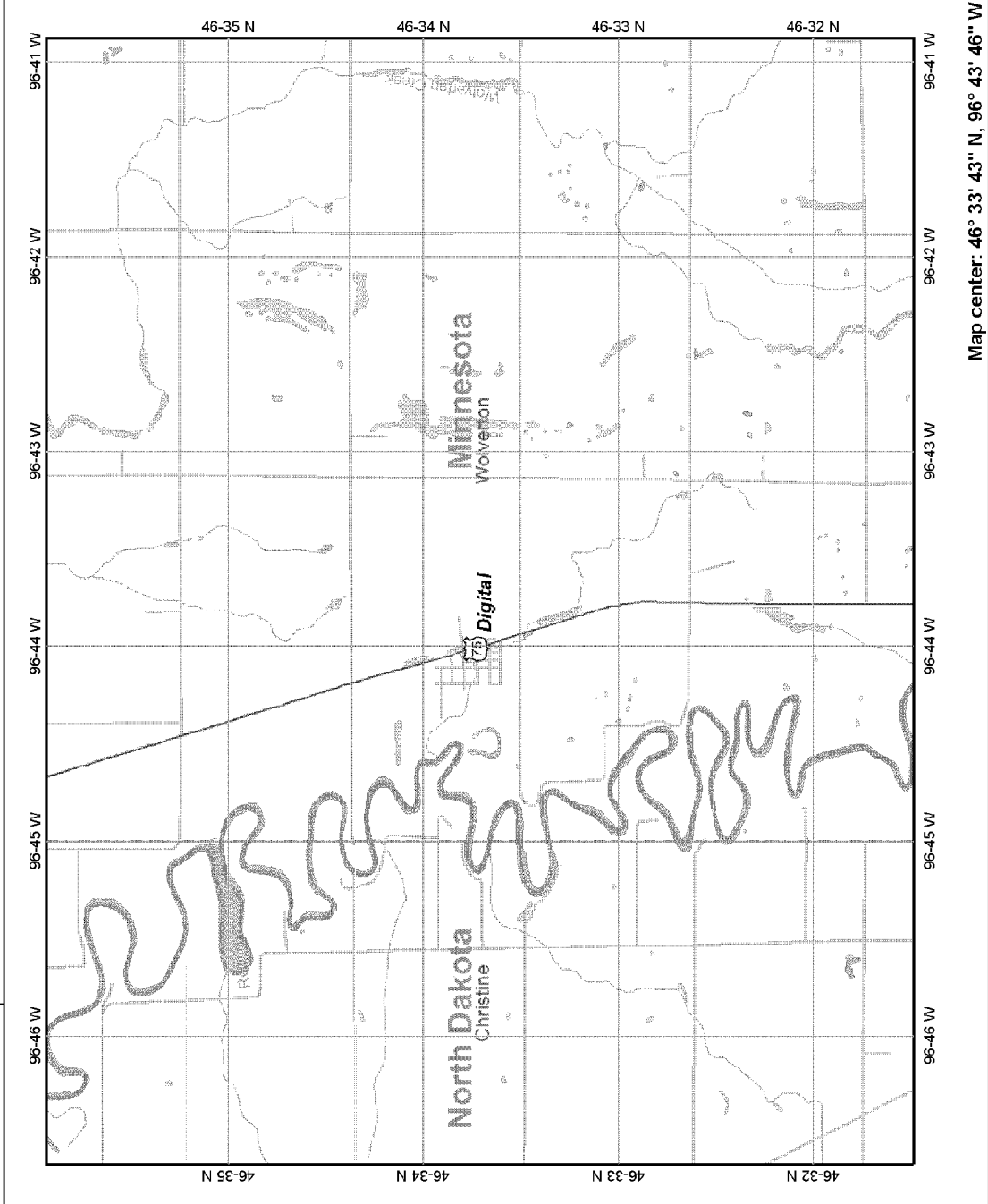
SITE RANKING: 7

WOLVERTON CWI Well Map



Minnesota Department of Health - Division of Environmental Health - Copyright © 2007

Wolverton Wetland Map



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Wolverton What's In My Neighborhood Map



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 **Minnesota Pollution Control Agency**

Sites

-  Deleted State Superfund
-  Permitted Solid Waste
-  Unpermitted Dumps
-  NFRAP
-  State Superfund
-  CERCLA
-  Federal Superfund
-  State Closed Landfill
-  Voluntary Investigation & Cleanup
-  RCRA T&D Facilities
-  RCRA Investigation & Cleanup
-  State Assessment

Minnesota Unique Well No.
175735

County: Wilkin
 Quad: Wolverton
 Quad ID: 241C

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING RECORD
 Minnesota Statutes Chapter 103I

Entry Date: 04/17/1988
 Update Date: 02/04/2004
 Received Date:

Well Name: PETERSON, VICTOR Township Range Dir Section Subsections Elevation: 136 48 W 27 BCABAB 930 ft. Elevation Method: 7.5 minute topographic map (+/- 5 feet)	Well Depth: 60 ft. Depth Completed: 60 ft. Date Well Completed: 06/17/1983 Drilling Method: Non-specified Rotary																																							
Well Address: RR 1 WOLVERTON MN <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Geological Material</th> <th style="text-align: left;">Color</th> <th style="text-align: left;">Hardness</th> <th style="text-align: left;">From</th> <th style="text-align: left;">To</th> </tr> </thead> <tbody> <tr> <td>TOP SOIL</td> <td>BLACK</td> <td>SOFT</td> <td>0</td> <td>1</td> </tr> <tr> <td>CLAY</td> <td>YELLOW</td> <td>SOFT</td> <td>1</td> <td>18</td> </tr> <tr> <td>CLAY</td> <td>BLUE</td> <td>MEDIUM</td> <td>18</td> <td>54</td> </tr> <tr> <td>SAND LENS</td> <td>WHITE</td> <td>MEDIUM</td> <td>54</td> <td>60</td> </tr> </tbody> </table>	Geological Material	Color	Hardness	From	To	TOP SOIL	BLACK	SOFT	0	1	CLAY	YELLOW	SOFT	1	18	CLAY	BLUE	MEDIUM	18	54	SAND LENS	WHITE	MEDIUM	54	60	Drilling Fluid: -- Well Hydrofractured? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No From -ft. to Ft. Use: Domestic Casing Type: Plastic Joint No Information Drive Shoe? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Above/Below 1 ft. <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Casing Diameter</th> <th style="text-align: left;">Weight</th> <th style="text-align: left;">Hole Diameter</th> </tr> </thead> <tbody> <tr> <td>4 in. to 54 ft.</td> <td>lbs./ft.</td> <td>6.25 in. to ft.</td> </tr> </tbody> </table> Open Hole: from ft. to ft. Screen YES Make JOHNSON Type stainless steel <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: left;">Slot/Gauze</th> <th style="text-align: left;">Length</th> <th style="text-align: left;">Set Between</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>12</td> <td>6</td> <td>54 ft. and 60 ft.</td> </tr> </tbody> </table> Static Water Level: 12 ft. from Land surface Date Measured: 06/17/1983 PUMPING LEVEL (below land surface): ft. after hrs. pumping g.p.m. Well Head Completion: Pitless adapter manufacturer: Model: <input checked="" type="checkbox"/> Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input checked="" type="checkbox"/> At-grade (Environmental Wells and Borings ONLY)	Casing Diameter	Weight	Hole Diameter	4 in. to 54 ft.	lbs./ft.	6.25 in. to ft.	Diameter	Slot/Gauze	Length	Set Between	3	12	6	54 ft. and 60 ft.
	Geological Material	Color	Hardness	From	To																																			
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	Diameter	Slot/Gauze	Length	Set Between																																				
	3	12	6	54 ft. and 60 ft.																																				
REMARKS: PLASTIC CASING Located: Minnesota Geological Survey Method: Digitized - scale 1:24,000 or larger (Digitizing Table) Unique Number Verification Plat Book Date: N/A System: UTM - Nad83, Zone15, Meters X: 215293 Y: 5163969	Grouting Information: Well Grouted? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Grout Material: Bentonite from to ft. 1 yds. Nearest Known Source of Contamination: ___feet ___direction ___type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Pump: <input checked="" type="checkbox"/> Not Installed Date Installed: 06/19/1983 Manufacturer's name: GUILDS Model number: 7FH05412 HP: 0.5 Volts: 230 Length of drop Pipe: 40 ft. Capacity: 7 g.p.m. Type: Submersible Material: Plastic																																							
First Bedrock: Last Strat Sand-white Aquifer Quat. Buried Artes. Aquifer Depth to Bedrock: ft	Abandoned Wells: Does property have any not in use and not sealed well(s)? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Variance: Was a variance granted from the MDH for this well? <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Well Contractor Certification: Falk Bros Well Co. 91204 FALK, J. License Business Name Lic. Or Reg. No. Name of Driller																																							
County Well Index Online Report	175735																																							
Printed 10/23/2008 HE-01205-07																																								

Appendix E

School Training Site Profile for Site Ranked Post-June 30th Report

- Northland College, East Grand Forks

SITE SUMMARY

Site Name: Northland College - East Grand Forks
2022 Central Avenue NE
East Grand Forks, MN 56721

Site Contact: Dave Hoefler
218-793-2590

Training Location: Three locations on campus: a grassy area north of the firefighting building, a grassy area at the northwest corner of campus, and a parking lot on the south side of the firefighting building.

Training Location Coordinates (X,Y): 200170.86, 5318102.81
199928.06, 5318394.85
200152.19, 5318065.46

Type of foam used in training: Class B AFFF: 3% Chemguard
Class B Protein: not sure brand, historic use
Class A: Chemguard

Foam training frequency: Once per semester, spring and fall

Foam use per training event: 20 to 25 gallons

Spent foam destination: To the ground in the grassy areas, to the storm sewer in the parking lot training site.

Annual foam use: Class B AFFF: 40 gallons
Class B Protein: unknown
Class A: 10 gallons

Nearest surface water: Red River, 3/4 1 mile southwest

Nearest wetland: 1/2 to 3/4 mile northwest

Karst Area: Site is not located in a karst area.

Nearest water well: More than 1 mile

Nearest Wellhead Protection Area: More than 1 mile

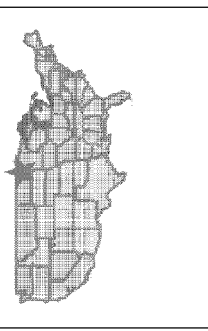
Nearest Source Water Assessment Area: More than 1 mile

SITE RANKING: 8

NORTHLAND COLLEGE, EAST GRAND FORKS CWI Well Map



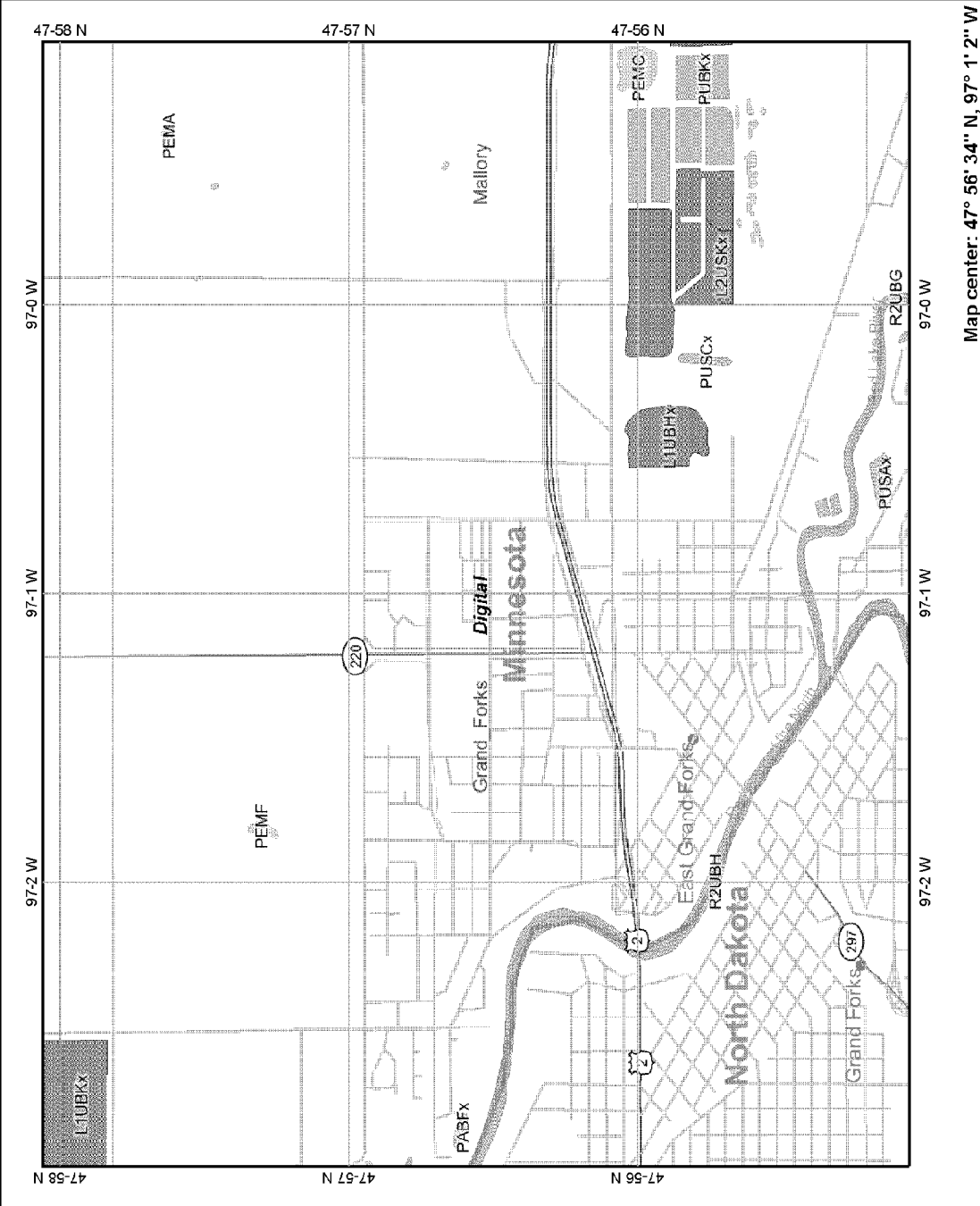
Northland Coll E Grand Forks Wetland Map



Legend

- Interstate
- Major Road
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USCS Quad Index 24K
- Lower 48 Wetland Polygons
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine
- Lower 48 Available Wetland Data
 - Non-Digital
 - Digital
 - No Data
 - Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

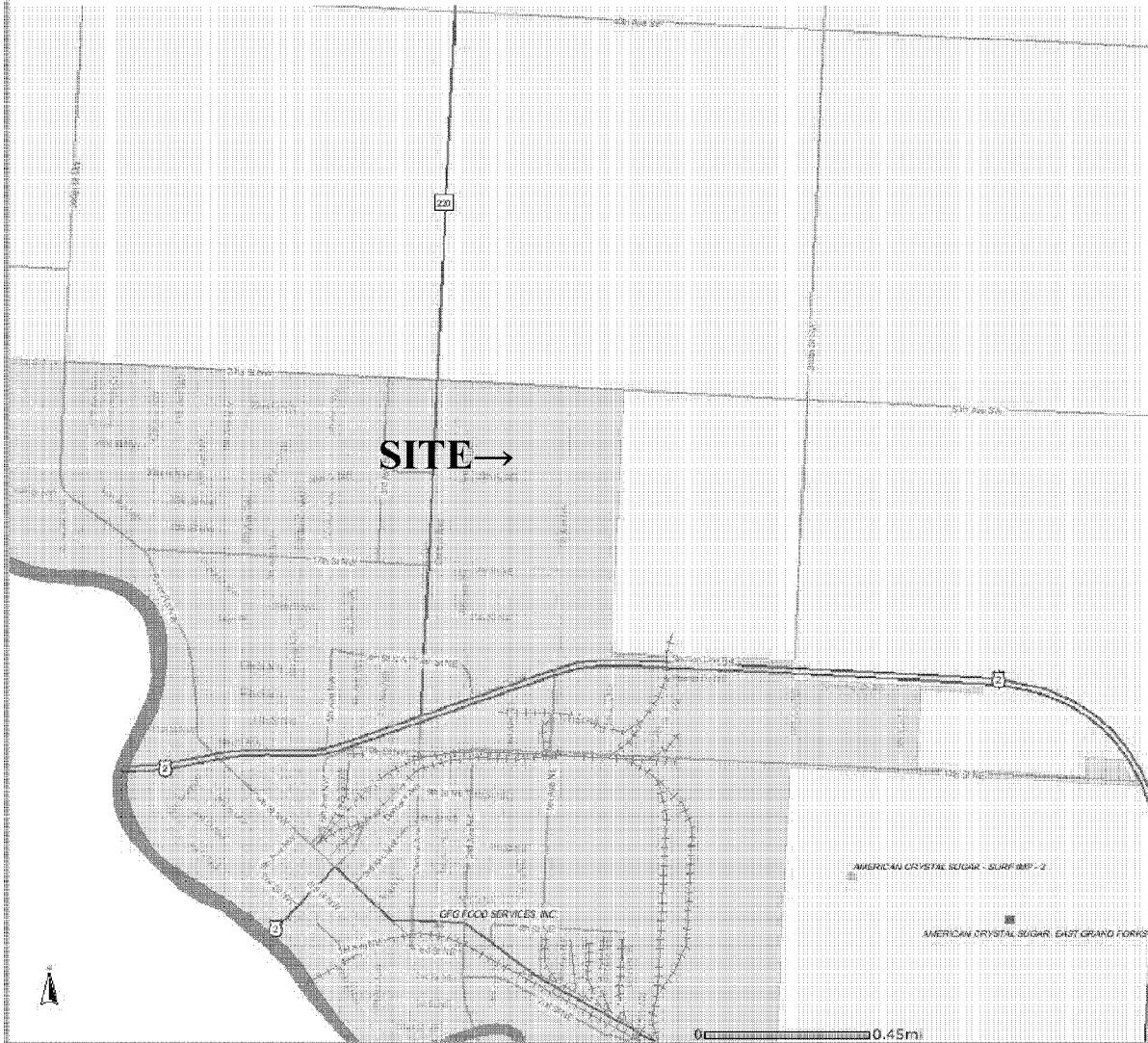
Scale: 1:38,926



Map center: 47° 56' 34" N, 97° 1' 2" W

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Northland College East Grand Forks *What's In My Neighborhood*



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