



Traut Wells, Inc. 141 28<sup>th</sup> Avenue South Waite Park, Minnesota 56387 Sent via email / 1st Class Mail

Attention:

Mr. Rob Vix

Ph: 320-251-5090; Fax: 320-259-0594

Email: drill@trautwells.com

Regarding:

Specifications for Well Sealing

Former Schmunk's Grocery Store

102 Lake Avenue Northeast Bemidji, Minnesota 56601 Terracon Project No. 41037061 MPCA Site ID #: LEAK0004171

#### Dear Rob:

Enclosed please find specifications for well sealing activities for the Minnesota Pollution Control Agency (MPCA) near the above referenced site under your drilling contract with the State of Minnesota. Also enclosed are a State Contract Order Form and Subcontractor Services Agreement between Terracon Consultant's, Inc. (Terracon) and your firm. We have enclosed site maps, boring logs and property owner information to aid in locating utilities and preparing Well Sealing Records. Please complete the cost itemization portion of the State Contract Order Form for the activities outlined in the attached specifications. Sign both the State Contract Order Form and the Subcontractor Services Agreement and return them to Terracon's White Bear Lake, Minnesota office.

If Traut Wells, Inc. is authorized to proceed with the work, the final contract amount will be determined at the completion of the project based upon the actual unit rates.

If you have questions or require additional information, please do not hesitate to contact our office at 651-770-1500.

Sincerely,

Terracon Consultants, Inc.

Paul J. Wiese, P.G. Senior Project Manager

Some Project Manager

PJW:pjw 061SOW STATEDRILLINGCONT WELLSEALING TRAUT 4-12.DOC

cc: Arlene Furuseth, MPCA, 714 Lake Avenue, Suite 220, Detroit Lakes, MN 56501 (email)

Terracon Consultants, Inc. 3535 Hoffman Road East White Bear Lake, Minnesota 55110
P [651] 770-1500 F [651] 770-1657 terracon.com





Specifications for Well Sealing – Exhibit B
Former Schmunk's Grocery Store
102 Lake Avenue Northeast
Bemidji, Minnesota 56601
Terracon Project No. 41037061
MPCA Site ID #: LEAK0004171

The work covered under this contract shall consist of the labor, equipment, materials, tools, transportation and incidentals necessary for well sealing activities at the above referenced site. The State Contractor shall comply with all the requirements described in the most current draft of the Minnesota Pollution Control Agency's (MPCA) *Contractor and Subcontracting Purchasing Manual* which can be found at <a href="http://www.pca.state.mn.us/publications/i-admin9-01.pdf">http://www.pca.state.mn.us/publications/i-admin9-01.pdf</a>.

#### Mobilization

The State Contractor will coordinate with Terracon for scheduling the work, making site access arrangements, permitting, and conducting the work. State Contractor shall mobilize to the above referenced site for work to take place at the site. The State Contractor shall be responsible for obtaining any applicable permits including notification of the Minnesota Department of Health and other State or Local agencies. The wells are generally located on the site property, City of Bemidji road right-of-way or Otto Schmunk Park. The State Contractor shall notify Terracon at least five working days in advance of the field work such that the property owners can be notified.

### **Health and Safety**

The site is a known petroleum release site, therefore, soil, groundwater and vapors impacted with petroleum may be encountered during site work. All on-site personnel shall have certification of Occupational Safety and Health Administration (OSHA) 40-hour Health and Safety training that satisfies OSHA requirements under CFR 1910.120.

The following requirements shall not be construed to limit, modify, or otherwise change the State Contractor's obligations to comply with all laws, ordinances, codes, and regulations of relevant jurisdictional authorities, including applicable Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations standard (29 CFR 1910.120) and any other federal, state, or local safety regulations.

A Health and Safety Plan (HASP) has been prepared for personnel present at the site during environmental assessment, monitoring, remedial activities and other environmental related service activities. The State Contractor shall use the Terracon HASP or prepare a HASP of their own. It is anticipated that Terracon personnel will not be onsite during the pickup and transport of the waste and therefore the State Contractor shall be using their own HASP. State Contractor shall at all times during site work provide continuous observations to manage site safety. Prior to commencement of work all Subcontractor and site personnel must review the HASP, sign and date the HSP to acknowledge they are familiar with the site contaminants and health and safety procedures. A copy of the HASP shall be kept on-site and readily accessible during all work activities. At the discretion of Terracon and the MPCA the State Contractor's work may be suspended due to the State Contractor's failure to comply with the HASP requirements. The State Contractor shall be responsible for notifying Terracon of corrective measures that will be conducted to allow the work to proceed in compliance with the HASP. State Contractor shall not



proceed with work unless approved by Terracon. The State Contractor shall be responsible for all costs associated with work stoppage and delays caused by the State Contractor's failure to comply with the HASP requirements. Costs incurred by Terracon and the MPCA due to State Contractor's delay may be applied as a deduction to State Contractor's invoice. The State Contractor shall be aware of emergency response procedures that will follow during work conducted during the site work. At a minimum, the procedures shall include containment and cleanup of potential leaks or spills during pick up and transportation of the drums.

#### **Utilities**

Public utilities shall be cleared by the State Contractor prior to the initiation of the work using Gopher-State-One-Call. If needed, the State Contractor shall have private underground utilities marked by a qualified utility locator.

### Well Sealing

The State Contractor shall seal thirteen 2-inch diameter monitoring wells (MW-1 through MW-10, TW-A, TW-B and TW-C), six vapor monitoring points (MP-1 through MP-6), one 2-inch diameter irrigation well (321 Taft Avenue NE), and two one 1.25-inch diameter water supply wells (1703 3<sup>rd</sup> Street NE and 315 Lake Avenue) in accordance with applicable MDH and local requirements. The State Contractor shall also seal two sub-slab monitoring points in the basement of the home at 202 Taft Avenue NE. Monitoring well MW-3 is a near grade well completed in asphalt and the six vapor monitoring points have at-grade completions in green areas. The remainder of the monitoring wells and the irrigation well have above grade completions, some of which have guard posts, and are completed in green areas. The two water supply wells are located in the basement of homes. Site maps and well construction records are attached.

State Contractor shall completely remove and dispose of all monitoring well or points parts (i.e., casings, protops, covers, screens, guard posts, etc.) including near-grade covers and pads so that the site can be restored as practicably as possible to match adjoining surface finishes/grades (i.e., bituminous pavement, sod, cement, etc.). Subsurface portions of the monitoring well may also be sealed in place using grout consistent with MDH Well Code. The final finish of the surface area shall consist of bituminous patch, concrete, gravel, or sod depending on the adjoining surface finish. The final surface area of above and near-grade monitoring well completions shall be restored as described below to match that of existing surface. The State Contractor shall contact Terracon for approval prior to agreeing to alternative property restoration arrangements with property owners.

- Restoration in asphalt areas shall consist of a minimum of 4-inches of hot mix asphalt which shall be rolled after application or poured concrete. The sub-base shall consist of a minimum of 2-inches of compacted Class 5 gravel.
- Restoration in concrete areas shall consist of a minimum of 4-inches of poured concrete. The sub-base shall consist of a minimum of 2-inches of compacted Class 5 gravel.
- Restoration in gravel areas shall consist of a minimum of 4-inches of compacted sand and gravel fill.
- Restoration in green areas shall consist of a minimum of 2-inches of black dirt cover with sod or seed. The sod or grass seed shall be thoroughly watered at time it is placed.



• The State Contractor shall contact Terracon for approval prior to agreeing to alternative property restoration arrangements with property owners.

Property ownership information is as follows:

- Monitoring wells MW-2, MW-3 and MW-7: Don Braaten, 1920 Lake Avenue NE, Bemidji MN, 56601
- Monitoring wells MW-1, MW-4 through MW-8, TW-A through TW-C, and monitoring points MP-1 through MP-6 are within the City of Bemidji road right-of-ways: David Minke, City Manager, City of Bemidji, 317 4<sup>th</sup> Street NW, Bemidji MN, 56601
- Monitoring wells MW-9 and MW-10: James Potts, 321 Taft Avenue NE, Bemidji MN, 56601
- Water supply wells at 3185 Lake Avenue: Gary Gregg, 2126 Town Hall Road NW, Bemidji MN, 56601
- Sub-slab monitoring points: Kristine Cannon, 202 Taft Avenue NE, Bemidji MN, 56601

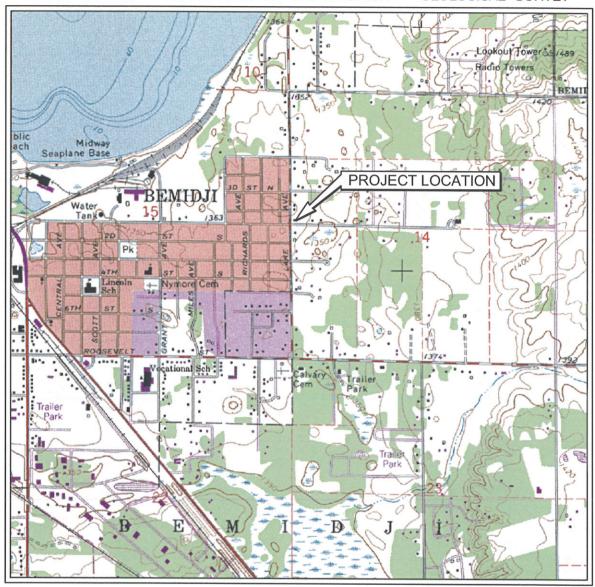
#### **Project Documentation**

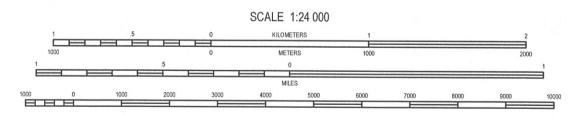
Following completion of the work, the State Contractor shall provide the following documents to Terracon:

- Copy of permits.
- Well Sealing Records (and to the MDH and local agencies if applicable).
- Invoice shall be consistent with line items on the State Contract Order Form.

PJW:pjw 061SOW STATEDRILLINGCONT WELLSEALING TRAUT 4-12.DOC

### UNITED STATES - DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY





CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

### BEMIDJI EAST QUADRANGLE MINNESOTA - BELTRAMI COUNTY

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

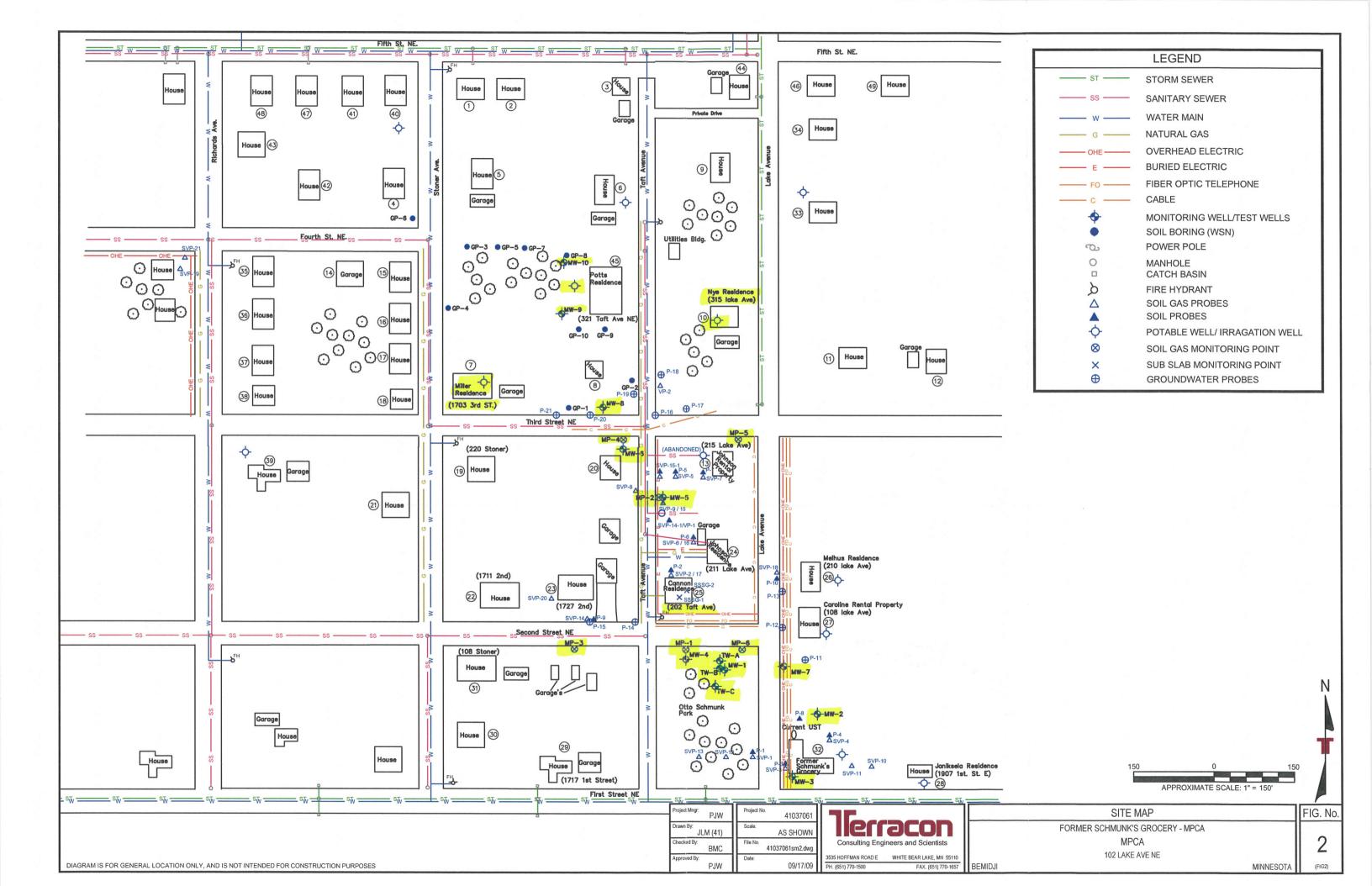
7.5 MINUTE SERIES (TOPOGRAPHIC)

| Project Mngr:<br>PJW  | Project No. 41037061       |
|-----------------------|----------------------------|
| Drawn By:<br>JLM (41) | Scale:<br>AS SHOWN         |
| Checked By: PJW       | File No.<br>41037061sl.dwg |
| Approved By:<br>PJW   | Date: 09/22/09             |

| Consulting Engine  | ers and Scientists WHITE BEAR LAKE, MN 55110 |
|--------------------|--|
| PH. (651) 770-1500 | FAX. (651) 770-1657                          |

|         | SITE LOCATION MAP        |           |
|---------|--------------------------|-----------|
|         | FORMER SCHMUNK'S GROCERY |           |
|         | MPCA                     |           |
| ll .    | 102 LAKE AVENUE NE       |           |
| BEMIDJI |                          | MINNESOTA |

FIG. No.



495233

County Quad Quad ID Beltrami

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Entry Date Update Date Received Date 09/25/1992 08/22/2007 10/14/1991

| 10000                            | Quad ID                 |       |    | RECOR   |   | ed Date                  | 10/14/1991                            |
|----------------------------------|-------------------------|-------|----|---|---|--------------------------|---------------------------------------|
| Well Name SCHMUNCK, HARRY        | re-se                   |       |    | Minnesota Statutes C<br>Well Depth                      | Depth Completed                         | Date We                  | II Completed                          |
| Township Range Dir Section Subse | ctions Elevation        | ft.   |    | 40 ft.  | 40 ft.                                  |                          | 11/1991                               |
| 146 33 W 15 DAA                  | <b>Elevation Method</b> |       |    | Drilling Method Vibracore                               |   | 307                      | · · · · · · · · · · · · · · · · · · · |
| Well Address                     |                         |       |    | Drilling Fluid  |   |                          |                                       |
| 102 LAKE AV                      |                         |       |    |   | Well Hydrofractured?<br>From Ft. to Ft. | Yes                      | No                                    |
| BEMIDJI MN 56601                 |                         |       |    | Use Monitor well  | FIGHT FL. to FL.                        | -                        |                                       |
| Beological Material              | Color Hardness          | From  | То | Casing Type Steel (black                                | or low earbon) Loint We                 | olded Drive Sh           | 003                                   |
| SAND                             |                         | 0     | 36 |   | ŕ                                       | adea Disse of            | OET                                   |
| SAND                             |                         | 36    | 40 | Yes J No Above/Below                                    | <del>- 11</del>                         | <del> </del>             |                                       |
|                                  |                         |       |    | Casing Diameter   | _                                       | ole Diameter             | Г                                     |
|                                  |                         |       |    | 2 in. to 26 ft.   | lbs./ft.                                | 6.25 in. to              | 40 ft.                                |
|                                  |                         |       |    | Open Hole from ft. to                                   | ft.                                     |                          |                                       |
|                                  |                         |       |    | Screen YES Make JO                                      | HNSON Type stainles                     | s steel                  |                                       |
|                                  |                         |       |    | Diameter Slot/G<br>2 10                                 |   | et Between<br>26 ft. and | 36 ft.                                |
|                                  |                         |       |    | Static Water Level                                      |   |                          |                                       |
|                                  |                         |       |    | ft. from Date Measure                                   | d                                       |                          |                                       |
|                                  |                         |       |    | PUMPING LEVEL (below is                                 |   |                          | *                                     |
|                                  |                         |       |    | ft. after hrs. pumping                                  | y.p.m.                                  | *                        | ****                                  |
|                                  |                         |       |    | Well Head Completion                                    | - ** ) (                                |                          |                                       |
|                                  |                         |       |    | Pitless adapter manufacture                             |   |                          |                                       |
|                                  |                         |       |    | Casing Protection                                       | √ 12 in. above grade                    |                          |                                       |
|                                  |                         |       |    | At-grade (Environmer                                    | ntal Wells and Borings ON               | LY)                      |                                       |
| NO                               | REMARKS                 |       |    | Grouting Information We                                 | ell Grouted? ┵ Yes                      | No                       |                                       |
|                                  |                         |       |    |   |   |                          |                                       |
|                                  |                         |       |    | Grout Material: Neat 0                                  | Cement                                  | from to 22               | 2 ft.                                 |
|                                  |                         |       |    |   |   |                          |                                       |
|                                  |                         |       |    | Nearest Known Source of                                 |   |                          | ·                                     |
|                                  |                         |       |    | 0_feetdirection <u>Tanks</u> Well disinfected upon comp |   | No                       |                                       |
|                                  |                         |       |    |   |   |                          |                                       |
|                                  |                         |       |    | Pump Not Install Manufacturer's name                    | ed Date Installed  Model number HP _    | Voits                    |                                       |
|                                  |                         |       |    | Length of drop Pipe _ft. (                              |   |                          |                                       |
| 44.4.1                           |                         |       |    | Abandoned Wells Does p                                  | roperty have any not in us              | e and not sealed         | d well(s)?                            |
| mw-1                             |                         |       |    | Yes J No  | •                                       |                          |                                       |
|                                  |                         |       |    | Variance Was a variance g                               | granted from the MDH for                | his well?                | Yes                                   |
|                                  |                         |       |    | Well Contractor Certificati                             |   |                          | 100                                   |
| First Bedrock A                  | Aquifer                 |       |    | North Star Drilling                                     | 49588                                   | <u>B/</u>                | ACKOWSKI, M.                          |
|                                  | epth to Bedrock ft.     |       |    | License Business Nam                                    | ne Lic, Or Reg                          | . No. N                  | Name of Driller                       |
| County Well Index                | k Online Repor          | <br>t |    | 495233  |   | Pri                      | nted 3/28/201                         |

Minnesota Unique Well No.

495234

County
Quad
Quad ID

inty Bell

Beltrami

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING RECORD

Entry Date Update Date Received Date 09/25/1992 08/22/2007 10/14/1991

| County Well Index Online Report   | 495234 Printed 3/28/201  |
|---|--|
| First Bedrock Aquifer<br>Last Strat Depth to Bedrock ft.                        | Variance Was a variance granted from the MDH for this well?       Yes       Nell Contractor Certification         North Star Drilling       49588       BACKOWSKI, M.         License Business Name       Lic. Or Reg. No.       Name of Driller |
| MW-2  | Abandoned Wells Does property have any not in use and not sealed well(s)? Yes J No   |
|   | Pump Not Installed Date Installed  Manufacturer's name Model number HP_ Volts  Length of drop Pipe _ft. Capacity _g.p.m Type Material  |
|   | Nearest Known Source of Contamination O_feetdirectionTankstype Well disinfected upon completion? Yes No  |
|   | Grout Material: Neat Cement from to 15 ft.   |
| NO REMARKS  | Grouting Information Well Grouted? J Yes No  |
|   | Casing Protection   √ 12 in. above grade  At-grade (Environmental Wells and Borings ONLY)  |
|   | Well Head Completion Pitless adapter manufacturer Model  |
|   | PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.   |
|   | Static Water Level ft. from Date Measured  |
|   | Diameter Slot/Gauze Length Set Between 2 10 10 21 ft. and 31 ft.   |
|   | Open Hole from ft. to ft.  Screen YES Make JOHNSON Type stainless steel  |
|   | 2 in. to 21 ft. lbs./ft. 6.25 in. to 35 ft.  |
|   | Yes ✓ No Above/Below 2 ft.<br>Casing Diameter Weight Hole Diameter   |
| Geological Material Color Hardness From<br>SAND 0                               | To Casing Type Steel (black or low carbon) Joint Welded Drive Shoe?  |
| 102 LAKE AV<br>BEMIDJI MN 56601   | Drilling Fluid Well Hydrofractured? Yes No From Ft. to Ft.  Use Monitor well   |
| 146 33 W 15 DAA Elevation Method Well Address                                   | Drilling Method Auger (non-specified)  |
| Nell Name SCHMUNCK, HARRY  Cownship Range Dir Section Subsections Elevation ft. | Well Depth Depth Completed Date Well Completed  35 ft. 35 ft. 09/12/1991   |
| N. II. N  | Minnesota Statutes Chapter 1031  Well Depth Depth Completed Date Well Completed  |

Minnesota Unique Well No.

495235

County
Quad

Beltrami

Quad ID

MINNESOTA DEPARTMENT OF HEALTH

### WELL AND BORING RECORD

Entry Date Update Date Received Date 08/29/2007 08/29/2007

| Quad ID  |         | Minnesota Statutes C                                     | hapter 1031   |  |
|--|---------|--|---|--|
| Well Name SCHMUNCK, HARRY  |         | Well Depth   | Depth Completed   | Date Well Completed                          |
| Township Range Dir Section Subsections Elevation ft.  146 33 W 15 DAA Elevation Method |         | 30 ft.   | 30 ft.  | 09/13/1991                                   |
|  |         | Drilling Method Vibracore                                | /rotasonic  |  |
| Well Address<br>102 LAKE AV<br>BEMIDJI MN 56601  |         | Drilling Fluid   | Well Hydrofractured?<br>From Ft. to Ft.                 | Yes No                                       |
|  |         | Use Monitor well   |   | 7  |
|  | From To | Casing Type Steel (black<br>Yes • No Above/Belov         | •   | ded Drive Shoe?                              |
|  |         | Casing Diameter  | Weight Ho   | le Diameter                                  |
|  |         | 2 in. to 20 ft.  | lbs./ft. 6  | .25 in. to 30 ft.                            |
|  |         | Open Hole from ft. to                                    | ft  |  |
|  |         | Screen YES Make JO                                       | HNSON Type stainless                                    | steel  |
|  |         | Diameter Slot/G<br>2 10                                  | _   | t <b>Between</b><br>0 ft. and 30 <b>ft</b> . |
|  |         | Static Water Level                                       |   | <del></del>                                  |
|  |         | ft. from Date Measure                                    |   |  |
|  |         | PUMPING LEVEL (below I<br>ft. after hrs. pumping         | and surface)<br>g.p.m.                                  |  |
|  | •       | Well Head Completion<br>Pitless adapter manufacture      | er Model  |  |
|  |         | Casing Protection  | 12 in. above grade                                      |  |
|  |         | At-grade (Environmer                                     | rial Wells and Borings ONL'                             | <b>(</b> )                                   |
| NO REMARKS   |         | Grouting Information W                                   |   | No   |
|  |         | Grout Material: Neat (                                   | Cement f  | rom to 15 ft.                                |
|  |         | Nearest Known Source of<br>_feet _direction <u>Tanks</u> |   |  |
|  |         | Well disinfected upon comp                               | oletion? Yes  | No   |
|  |         | Manufacturer's name                                      | ed Date Installed  Model number HP Capacity _g.p.m Type | Volts<br>Material                            |
| 1/11/1-2   |         | Abandoned Wells Does p                                   |   |  |
| yww 5  |         | Yes J No   |   | and not spaied well(s) (                     |
|  |         | Variance Was a variance g                                | granted from the MDH for th                             | is well? Yes No                              |
| Civat Dadrack  |         | Well Contractor Certificat                               | <del></del>   | <u></u>                                      |
| First Bedrock Aquifer  |         | North Star Drilling                                      | <u>49588</u>  | BACKOWSKI, M.                                |
| Last Strat Depth to Bedrock ft.  |         | License Business Nam                                     | ne Lic, Or Reg.   |  |
| County Well Index Online Report  |         | 495235   |   | Printed 3/28/2012<br>HE-01205-07             |

MINNESOTA DEPARTMENT OF HEALTH Minnesota Unique Well No. Beltrami County Entry Date 12/21/1992 WELL AND BORING 482096 Quad Update Date 08/22/2007 **RECORD** Quad ID Received Date 06/11/1992 Minnesota Statutes Chapter 1031 Well Depth **Depth Completed** Date Well Completed Well Name SCHMUNCK, HARRY Township Range Dir Section Subsections Elevation ft. 34 ft. 06/02/1992 34 ft. 146 33 W 14 DA **Elevation Method** Drilling Method Auger (non-specified) Well Address Drilling Fluid Well Hydrofractured? Yes Νo 102 LAKE AV From Ft. to Ft. BEMIDJI MN 56601 Use Monitor well Geological Material Color Hardness From То Yes J Casing Type Plastic Joint No Information Drive Shoe? BRN/RED SAND No Above/Below ft. WET SAND 29 Casing Diameter Weight Hole Diameter lbs./ft. 8.25 in. to 34 ft. 2 in. to 24 ft. Open Hole from ft, to ft. Screen YES Make JOHNSON Type plastic Length Set Between Diameter Slot/Gauze 10 10 24 ft. and 34 ft. Static Water Level 28 ft. from Land surface Date Measured 06/02/1992 PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m. Well Head Completion Pitless adapter manufacturer Model Casing Protection Y 12 in. above grade At-grade (Environmental Wells and Borings ONLY) REMARKS Grouting Information Well Grouted? No MW 5 from to 21 ft, Grout Material: Neat Cement MW-5 Nearest Known Source of Contamination \_feet \_direction \_type Well disinfected upon completion? No Yes 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)? Variance Was a variance granted from the MDH for this well? Yes No Well Contractor Certification First Bedrock Thein Well Co. 34050 SWENTEK, J. Agulfer Last Strat Depth to Bedrock ft. License Business Name Lic. Or Reg. No. Name of Driller

482096

**County Well Index Online Report** 

Printed 3/28/2012 HE-01205-07

482099

County Quad Quad ID Beltrami

MINNESOTA DEPARTMENT OF HEALTH

### WELL AND BORING RECORD

Entry Date Update Date Received Date

12/21/1992 08/22/2007

| Qu                                    | ad ID            |                       | RECORD Received Date  Minnesota Statutes Chapter 1031                        |
|---------------------------------------|------------------|-----------------------|--|
| Well Name SCHMUNCK, HARRY             |                  |                       | Well Depth Depth Completed Date Well Completed                               |
| Township Range Dir Section Subsection | is Elevation     | ft.                   | 37 ft. 37 ft. 06/01/1992   |
| 146 33 W 14 DA                        | Elevation Method |                       | Drilling Method Auger (non-specified)  |
| Well Address                          |                  |                       | Delling Pluid  |
| 102 LAKE AV<br>BEMIDJI MN 56601       |                  |                       | Unilling Fluid Well Hydrofractured? Yes No From Ft. to Ft.                   |
| PEMIDA MIA 2000 I                     |                  |                       | Use Monitor well   |
| Geological Material                   | Color Hardness   | From To               | Casing Type Plastic Joint No Information Drive Shoe? Yes                     |
| SAND                                  | RED              | 0 9                   | No Above/Below ft.   |
| SAND<br>TILL                          |                  | 9 10<br><b>1</b> 0 11 | Casing Diameter Weight Hole Diameter   |
| COARSE SAND                           | RED              | 11 19                 |  |
| COARSE SAND<br>WET COARSE SAND        | RED              | 19 31<br>31 37        | 2 in. to 27 ft. lbs./ft. 8.25 in. to 37 ft.                                  |
| WET COARSE SAIND                      | RED              | 31 37                 |  |
|                                       |                  |                       | Open Hole from ft. to ft.  Screen YES Make JOHNSON Type plastic              |
|                                       |                  |                       | adreem i Ed Make Johnson Type plasiic  |
|                                       |                  |                       | Diameter Slot/Gauze Length Set Between                                       |
|                                       |                  |                       | 2 10 10 27 ft. and 37 ft.  |
|                                       |                  |                       |  |
|                                       |                  |                       |  |
|                                       |                  |                       | Static Water Level 32 fl. from Land surface Date Measured 06/01/1992         |
|                                       |                  |                       | PUMPING LEVEL (below land surface)   |
|                                       |                  |                       | ft. after hrs. pumping g.p.m.  |
|                                       |                  |                       | Well Head Completion   |
|                                       |                  |                       | Pitless adapter manufacturer Model   |
|                                       |                  |                       | Casing Protection 12 in. above grade   |
|                                       |                  |                       |  |
| REMARKS                               |                  |                       | Al-grade (Environmental Wells and Borings ONLY)                              |
| MW- mu-6                              |                  |                       | Grouting Information Well Grouted? Yes No                                    |
| SPOONS TAKEN AT 11', 21' AND 31'      |                  |                       |  |
|                                       |                  |                       |  |
|                                       |                  |                       |  |
|                                       |                  |                       |  |
|                                       |                  |                       | Nearest Known Source of Contamination  |
|                                       |                  |                       | feetdirectiontype  |
|                                       |                  |                       | Well disinfected upon completion? Yes   ✓ No                                 |
|                                       |                  |                       | · · · · · · · · · · · · · · · · · · ·  |
|                                       |                  |                       | Pump Not Installed Date Installed  Manufacturer's name Model number HP Volts |
|                                       |                  |                       | Manufacturer's name   Model number HP Volts<br>  Length of drop Pipe _ft.    |
|                                       | <del></del>      |                       | Abandoned Wells Does properly have any not in use and not sealed well(s)?    |
|                                       |                  |                       |  |
|                                       |                  |                       | Yes J No   |
|                                       |                  |                       | Variance Was a variance granted from the MDH for this well?                  |
| El 45 1                               |                  |                       | Well Contractor Certification  |
| First Bedrock Aquifo                  |                  |                       | Thein Well Co. 34050 SWENTEK, J.   |
| Last Strat Depth                      | to Bedrock ft.   |                       | License Business Name Lic. Or Reg. No. Name of Driller                       |
| County Well Index C                   | Inline Report    |                       | 482099 Printed 3/28/201 HE-01205-0   |

| Minnesota Unique Well No.   |                           |           |           |         | MINNESOTA DEPARTME  |  |                                     |                                  |
|---|---------------------------|-----------|-----------|---------|---|--|-------------------------------------|----------------------------------|
| 482097  | County<br>Quad            | Beltrami  |           |         | WELL AND B  |  | y Date<br>ate Date                  | 12/21/1992<br>08/22/2007         |
| 402031  | Quad ID                   |           |           |         | RECOR   |  | eived Date                          | 06/10/1992                       |
|   |                           |           |           |         | Minnesota Statutes C  |  |                                     |                                  |
| Well Name SCHMUNCK, HARRY   |                           |           |           |         | Well Depth  | Depth Completed  | Date W                              | fell Completed                   |
| Township Range Dir Section Subse  |                           |           | ft.       |         | 29 <b>ft</b> .  | 29 ft.   | 0                                   | 6/02/1992                        |
| 146 33 W 14 DA  | Elevatio                  | on Method |           |         | Drilling Method Auger (nor  | n-specified)   |                                     |                                  |
| Well Address  |                           |           |           |         | Drilling Fluid  | Well Hydrofractured                                    | ? Yes                               | No                               |
| 102 LAKE AV<br>BEMIDJI MN 56601   |                           |           |           |         |   | From Ft. to Ft.  | 1 108                               | 140                              |
| DEMINE (MILES OF THE PROPERTY |                           |           |           |         | Use Monitor well  |  | · · ·                               |                                  |
| Geological Material<br>SAND   | Color<br>BROWN            | Hardness  | From<br>0 | То<br>9 | Casing Type Plastic John<br>No Above/Below ff.  | t No Information Driv                                  | re Shoe?                            | Yes J                            |
| SAND  | BROWN                     |           | 9         | 22      |   | Woight   | Hala Dia                            |                                  |
| WETSAND   |                           |           | 22        | 29      | Casing Diameter   | Weight   | Hole Dia                            | meter                            |
|   |                           |           |           |         | Open Hole from It. to<br>Screen YES Make JOH  | ft.<br>HNSO <b>N Type</b> plasti                       | c                                   |                                  |
|   |                           |           |           |         | Diameter Slot/G.<br>2 10  | auze Length<br>10                                      | Set Between<br>19 ft. an            |                                  |
|   |                           |           |           |         | Static Water Level<br>25 ft. from Land surface  | Data Massurad 08/01                                    | 2//1002                             |                                  |
|   |                           |           |           |         | PUMPING LEVEL (below is   |  | 211992                              |                                  |
|   |                           |           |           |         | ft. after hrs. pumping  | g.p.m.   |                                     |                                  |
|   |                           |           |           |         | Well Head Completion Pitless adapter manufacture  J Casing Protection Y  At-grade (Environmen | r Model<br>12 in. above gra<br>tal Wells and Borings C |                                     |                                  |
| REMARKS<br>MW 7   |                           |           |           |         | Grouting Information We   |  |                                     |                                  |
| MW-7  |                           |           |           |         | Grout Material: Neat C  | Cement   | from to                             | 16 ft.                           |
|   |                           |           |           |         | Nearest Known Source offeetdirectiontype  | Contamination  |                                     |                                  |
|   |                           |           |           |         | Well disinfected upon comp  | letion? Yes  | √ No                                |                                  |
|   |                           |           | ·         |         | Pump Not Installe<br>Manufacturer's name<br>Length of drop Pipe _ft. C                        | ed Date Installed  Model number HF Capacity _g.p.m Ty  | <sup>o</sup> _ Volts<br>pe Material |                                  |
|   |                           |           |           |         | Abandoned Wells Does pr   | operty have any not in                                 | use and not seal                    | ed well(s)?                      |
|   |                           |           |           |         | Yes J No  |  | ***.                                |                                  |
|   |                           |           |           |         | Variance Was a variance g   |  | or this well?                       | Yes No                           |
| First Bedrock   | \ muifor                  |           |           |         | Thein Well Co.  |  | <u>1050</u>                         | <u>SWE</u> NTEK, J.              |
|   | \quifer<br>Depth to Bedro | ck ft,    |           |         | License Business Nan  | •  | Reg. No.                            | Name of Driller                  |
| County Well Inde  |                           |           |           |         | 482097  |  |                                     | Printed 3/28/2012<br>HE-01205-07 |

County Beltrami Entry Date 12/21/1992 WELL AND BORING 482098 Quad Update Date 08/22/2007 RECORD Quad ID 06/11/1992 Received Date Minnesota Statutes Chapter 1031 Well Depth **Depth Completed** Date Well Completed Well Name SCHMUNCK, HARRY Township Range Dir Section Subsections Elevation ft. 30 ft. 06/02/1992 33 W 14 DA **Elevation Method** Drilling Method Auger (non-specified) Well Address **Drilling Fluid** Well Hydrofractured? Yes Νn 102 LAKE AV From Ft. to Ft. BEMIDJI MN 56601 Use Monitor well Geological Material Color Hardness From To Yes 🞜 Casing Type Plastic Joint No Information Drive Shoe? SAND BROWN 0 lo Above/Below ft. SAND LT. BRN 9 24 WET SAND 24 30 Weight **Hole Diameter** Casing Diameter lbs./ft. 8.25 in. to 30 ft. 2 in. to 20 ft. Open Hole from ft. to Screen YES Make JOHNSON Type plastic Length Set Between Diameter Slot/Gauze 10 10 20 ft. and 30 ft. Static Water Level 24 ft. from Land surface Date Measured 06/02/1992 PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m. Well Head Completion Pitless adapter manufacturer Model Casing Protection Y 12 in, above grade At-grade (Environmental Wells and Borings ONLY) REMARKS Grouting Information Well Grouted? No SPOONS TAKEN AT 11' AND 26' from to 17 ft. Grout Material: Neat Cement MW-8 Nearest Known Source of Contamination \_feet \_direction \_type Well disinfected upon completion? Yes 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)? /es Variance Was a variance granted from the MDH for this well? Yes No Well Contractor Certification First Bedrock Thein Well Co. 34050 <u>SWENTEK, J.</u> Aquifer Last Strat License Business Name Depth to Bedrock ft. Lic. Or Reg. No. Name of Driller **County Well Index Online Report** 482098 Printed 3/28/2012 HE-01205-07

MINNESOTA DEPARTMENT OF HEALTH

670131

County Quad Beltrami

MINNESOTA DEPARTMENT OF HEALTH

### WELL AND BORING RECORD

Entry Date Update Date Received Date

01/14/2008 01/20/2004

| Well Part Source of Starties Conjecter 1871  Well Part Source of Starties Conjecter 1872  Well Part Source of Starties Conjected on  | County Well Inde   | x Online Repo        | ort<br>———— |    | 670131  |                                     |                    | Printed 3/28/2012<br>HE-01205-07      |
|--|--------------------|----------------------|-------------|----|---|-------------------------------------|--------------------|---------------------------------------|
| Well Name MILLER, LOUIS Township Range Dit Section Subsections Elevation 1/46 33 0 ft. 30 ft. | Last Strat         | Depth to Bedrock ft. |             |    | Well Contractor Certificat<br><u>Valnes Well Co.</u><br>License Business Na | ion <u>7</u>                        | 5330<br>r Reg. No. | <u>VALNES,T</u><br>Name of Driller    |
| Well Name MILLER, LOUIS   Township Range Dir Section Subsections Elevation   ft.   | MW-9               |                      |             |    | •   | roperty have any not in             | use and not se     | aled well(s)?                         |
| Well Name MILLER, LOUIS   Township Range Dir, Section Subsections Blevation   ft.  |                    |                      |             |    | Pump Not Install<br>Manufacturer's name                                     | ed Date Installed<br>Model number H | P_ Volts           |                                       |
| Well Name MILLER, LOUIS Township Range Dir Section Subsections Elevation 146 33 W 15 ADC Elevation Method  Well Address 1703 SRD ST NE BEMIDJI MN 56601  Geological Material TOPSOIL SILTY SAND VATERSAND GRAY  SOFT  19 30  Color Hardness DARK MEDIUM 1 19 30  GRAY  SOFT  19 30  Color Hardness Color Hardness DARK MEDIUM 1 19 30  Color Hardness Office Medium Red Date Well Completed  Well Hydrofractured? Yes I No From Ft. to Ft.  Use Montor well  Casing Type Plastic Joint Threaded Drive Shoe? No Above/Bolow ft.  Casing Januareter 2 in. to 20 ft. lbs://ft.  Copen Hole from ft. to ft.  Static Water Level 19 ft. from Land surface) ft. after first pumping g.p.m.  Well Head Completion Pilles adapter manufacturer PROTOP Model Casing Protection 12 in. above grade At-grade (Environmental Wells and Borings CNLY)  Grout Material: Neat Cement  from 0 to 2 ft.   |                    |                      |             |    | 50 feet South West dire   | ction <u>Other</u> type             | √ No               |                                       |
| Well Name   MilLER, LOUIS   Township   Range   Dir Section   Subsections   Elevation   Method  |                    |                      |             |    |   |                                     | from 2 to          | 18 ft.                                |
| Well Name MILLER, LOUIS Township Range Dir Section Subsections Elevation   ft.   30  |                    |                      |             |    | Grout Material: Neat  | Cement                              | from 0 to          | 2 ft.                                 |
| Mell Name MILLER, LOUIS   Township Range Dir Section Subsections Elevation   ft.   148   33   W   15   ADC   Elevation Method   Elevation Method   150   Elevation   150   Elevation Method   150    |                    | JATION               |             |    |   | ******                              |                    | · · · · · · · · · · · · · · · · · · · |
| Well Name MILLER, LOUIS Township Range Dir Section Subsections Elevation  1/46 33 W 1/5 ADC Elevation Method  Well Address 1703 3RD ST NE BEMIDJI MN 56601  BEMIDJI MN 56601  Geological Material TOPSOIL DARK MEDIUM 1 19 NVATERSAND GRAY SOFT 19 30  WALTERSAND GRAY SOFT 19 30  Well Name Miller, LOUIS  Well Depth Dopth Completed 30 ft. 30 f |                    |                      |             |    | ·   | ·                                   |                    |                                       |
| Well Name MILLER, LOUIS   Township Range Dir Section   Subsection   Elevation   off.   |                    |                      |             |    |   | er PROTOP Mode                      | <b> </b>           |                                       |
| Well Name MILLER, LOUIS   Township Range   Dir Section Subsections Elevation   146   33   W   15   ADC   Elevation Method   Elevation Method   Drilling Method   Hollow Stem Auger   |                    |                      |             |    | PUMPING LEVEL (below)   | and surface)                        | 172000             |                                       |
| Well Name MILLER, LOUIS  Township Range Dir Section Subsections Elevation ft.  146 33 W 15 ADC Elevation Method  Well Address 1703 3RD ST NE BEMIDJ! MN 56601  Geological Material TOPSOIL SILTY SAND YELLOW MEDIUM 1 19 WATERSAND GRAY SOFT 19 30  Well Depth Depth Completed 30 ft. 06/07/2003  Drilling Method Hollow Stem Auger  Well Hydrofractured? Yes I No From Ft. to Ft.  Use Monitor well  Casing Type Plastic Joint Threaded Drive Shoe? Yes I No Above/Below ft.  Casing Diameter Weight Hole Diameter  2 in. to 20 ft. 1bs./ft.  Open Hole from ft. to ft.  Screen YES Make JOHNSON Type plastic  Diameter Slot/Gauze Length Set Between   |                    |                      |             |    |   | Date Measured 06/0                  | 7/2003             |                                       |
| Well Name   MILLER, LOUIS   Township   Range   Dir Section   Subsections   Elevation   off.  |                    |                      |             |    |   |                                     |                    |                                       |
| Well Name MILLER, LOUIS  Township Range Dir Section Subsections Elevation ft. 146 33 W 15 ADC Elevation Method  Well Address 1703 3RD ST NE BEMIDJ! MN 56601  Geological Material TOPSOIL SILTY SAND YELLOW MEDIUM 1 19 WATERSAND GRAY SOFT 19 30 GRAY  Well Depth Depth Completed 30 ft. 30 ft. 06/07/2003    Well Depth   Depth Completed   Date Well Completed   Date Well Completed   Dop Well Completed   Date Well Completed |                    |                      |             | ſ  |   |                                     | ic                 |                                       |
| Well Name MILLER, LOUIS   Township Range Dir Section Subsections Elevation   ft.   30 ft.   30 ft.   30 ft.   30 ft.   30 ft.   30 ft.   06/07/2003  |                    |                      |             |    | 2 in. to 20 ft.   | lbs./ft.                            |                    |                                       |
| Well Name MILLER, LOUIS  Township Range Dir Section Subsections Elevation ft. 146 33 W 15 ADC Elevation Method  Well Address 1703 3RD ST NE BEMIDJ! MN 56601  Geological Material Color Hardness From To Casing Type Plastic Joint Threaded Drive Shoe? Yes I Completed  Well Depth Depth Completed Date Well Completed 30 ft. 30 ft. 06/07/2003  Drilling Method Hollow Stem Auger  Well Hydrofractured? Yes I No From Ft. to Ft.  Use Monitor well   | SILTY SAND         | YELLOW MEDIUN        | 1 1         | 19 |   | Weight                              | Hole D             | )iameter                              |
| Well Name MILLER, LOUIS  Township Range Dir Section Subsections Elevation ft.  146 33 W 15 ADC Elevation Method  Township Range Dir Section Subsections Elevation ft.  1703 3RD ST NE  Well Depth Depth Completed  30 ft. 30 ft. 06/07/2003  Drilling Method Hollow Stem Auger  Well Hydrofractured? Yes I No  |                    |                      |             |    |   | nt Threaded Drive Si                | 10e? Ye            | s 🛂                                   |
| Well Name MILLER, LOUIS  Township Range Dir Section Subsections Elevation ft.  146 33 W 15 ADC Elevation Method  Well Depth Depth Completed  30 ft. 30 ft. 06/07/2003  Drilling Method Hollow Stem Auger   | 1703 3RD ST NE     |                      |             |    | Drilling Fluid<br>  | •                                   | Yes                | √ No                                  |
| Well Name MILLER, LOUIS  Well Depth Depth Completed Date Well Completed  |                    | Elevation Method     |             |    |   | em Auger                            |                    |                                       |
|  |                    | ections Elevation    | ft.         |    | •   |                                     |                    | •                                     |
| 1A1  | W-II N MILED LOUIG |                      |             | T  | ."".  | ··········                          | Data               | Mall Completed                        |

670132

County Quad Quad ID Beltrami

MINNESOTA DEPARTMENT OF HEALTH

### WELL AND BORING RECORD

Entry Date Update Date Received Date

01/14/2008

|  | Quad ID                     |   |             | RECORD Received Date 01/20/2004   |
|--|-----------------------------|---|-------------|---|
| Mall Name FIGUREADT MIKE                                   |                             |   |             | Minnesota Statutes Chapter 103/ Well Depth Depth Completed Date Well Completed        |
| Well Name EICHSTADT, MIKE<br>Township Range Dir Section St | ubsections Elevation        | 1                                       | ft.         | 30 ft. 30 ft. 06/07/2003  |
| 146 33 W 15 AI   |                             |   |             | Drilling Method Hollow Stem Auger   |
| Well Address   |                             |   |             |   |
| TAFT AVE AND 4TH ST  | LM                          |   |             | Drilling Fluid Well Hydrofractured? Yes J No  |
| BEMIDJI MN 56601   |                             |   |             | From Ft. to Ft. Use Monitor well  |
| Geological Material  | Color H                     | ardness                                 | From T      |   |
| TOPSOIL<br>SAND  | DARK M                      | IEDIUM                                  | 0 1         | No Above/Relow ff   |
| SAND   |                             | IEDIUM<br>OFT                           | 1 1<br>18 3 |   |
|  |                             |   |             | 2 in. to 20 ft. lbs./ft.  |
|  |                             |   |             |   |
|  |                             |   |             | Open Hole from ft. to ft.   |
|  |                             |   |             | Screen YES Make JOHNSON Type plastic  |
|  |                             |   |             | Diameter Slot/Gauze Length Set Between  |
|  |                             |   |             | 2 10 10 20 ft. and 30 ft.   |
|  |                             |   |             |   |
|  |                             |   |             | Static Water Level  |
|  |                             |   |             | 20 ft. from Land surface Date Measured 06/07/2003                                     |
|  |                             |   |             | PUMPING LEVEL (below land surface) ft. after hrs. pumping g.p.m.                      |
|  |                             |   |             | tt. after hrs. pumping g.p.m.   |
|  |                             |   |             | Well Head Completion  |
|  |                             |   |             | Pitless adapter manufacturer Model  |
|  |                             |   |             | Casing Protection 12 in. above grade  |
| DC440V4  |                             |   |             | At-grade (Environmental Wells and Borings ONLY)                                       |
| <i>R E M A R K S</i><br>CONTAMINATED SOIL CONTAI           | MINATION                    |   |             | Grouting Information Well Grouted? J Yes No   |
|  |                             |   |             | Grout Material: Neat Cement from 0 to 2 ft.   |
|  |                             |   |             | Grout Material: Reat Germent from 2 to 18 ft.   |
|  |                             |   |             | Grout Material, Deficinite  |
|  |                             |   |             | Nearest Known Source of Contamination   |
|  |                             |   |             | 50 feet South West direction Other type   |
|  |                             |   |             | Well disinfected upon completion? Yes J No  |
|  |                             |   |             | Pump Not Installed Date Installed   |
|  |                             | <u>.</u>                                |             | Manufacturer's name   Model number  |
|  |                             |   |             | Abandoned Wells Does property have any not in use and not sealed well(s)?             |
| mw-10  |                             |   |             | Yes J No  |
|  |                             |   |             |   |
|  |                             |   |             | Variance Was a variance granted from the MDH for this well? Yes                       |
| First Bedrock  | A                           |   |             | Well Contractor Certification         Values Well Co.         75330         VALNES, T |
| Last Strat   | Aquifer<br>Depth to Bedrock | ft.                                     |             | License Business Name Lic. Or Reg. No. Name of Drille                                 |
|  | -                           | *************************************** |             |   |
| County Well Inc  | aex Unline h                | report                                  |             | 670132 Printed 3/28/2   |



141 28th Ave South Waite Park MN 56387 Phone: (320) 251-5090 Fax: (320)259-0594 drill@trautwells.com

Borehole Diameter - 2 1/2"

### FIELD BORING LOG

| Project Name         | Former Schmunk | 's Grocery     |       |          | Job Number                 | b                 | 809198             |                 |                            |    |
|----------------------|----------------|----------------|-------|----------|----------------------------|-------------------|--------------------|-----------------|----------------------------|----|
| Location _           | 321 Taft Ave,  | Bemidji        |       |          | Well/Boring Name           | Ja                | mes Potts          |                 |                            |    |
| Engineer/Client      | Terraco        | n              |       |          | Unique Number              | No                | t Assigned         |                 |                            |    |
| Date Completed       | 6/3/2010       | 0              |       | Driller  | John Scharnberg            | As                | sistant            |                 |                            |    |
|                      |                |                |       |          |                            | AS-BUI            | LT DIAC            | TRAM            |                            | 7  |
| Well\Boring Depth    |                | 29' 1"         |       |          |                            | (                 |                    |                 | •                          |    |
| Drilling Method      |                | Driven Point   |       |          |                            | $\Box$ $\vdash$   |                    |                 |                            |    |
| Drilling Fluid       |                | N/A            |       |          |                            |                   |                    | -               | Above Grade                |    |
| Borehole Diameter    |                | 2 1/2"         |       |          |                            | 2000              |                    | uusuu.          | ,                          |    |
| Static Water Level   |                | 21' 9"         |       | ı        |                            |                   |                    |                 | <b>1</b>                   | ١. |
| Screen Material      | Stain          | less or Galvar | nized |          |                            |                   |                    |                 |                            |    |
| Screen Length        | I              | Estimated 3 ft |       | ı        |                            |                   |                    |                 |                            |    |
| Casing Material      |                | Galvanized     |       | ı        | Casing:<br>Estimated 26' 1 |                   |                    |                 |                            |    |
| Casing Length        | E              | stimated 26' 1 | n     |          | <u>Galvanized</u>          |                   | Casing<br>Diameter |                 |                            |    |
| Casing Diameter      |                | 2"             |       |          |                            |                   | 2"                 |                 |                            |    |
| Filter Pack Used     | *···           | N/A            |       |          |                            |                   |                    |                 |                            |    |
| Filter Pack Interval | <b>-</b>       | N/A            |       |          |                            |                   |                    |                 | Grout:<br><u>N/A</u>       |    |
| Grout Material       |                | N/A            |       |          |                            |                   |                    |                 | <u>N/A</u>                 |    |
| Grouting Interval    |                | N/A            |       |          |                            |                   |                    |                 | ı                          |    |
| Grouting Method      |                | N/A            |       |          |                            |                   |                    |                 |                            |    |
| Pump                 |                | Not Present    |       |          |                            |                   |                    |                 |                            |    |
|                      | Visual Geology | Classifation   | n:    |          |                            |                   |                    |                 |                            |    |
| Material             | Color          | Hardness       | From  | To       | 7                          |                   |                    |                 |                            |    |
| Sand                 | Brown          | Soft           | 0.    |          |                            |                   |                    |                 | <b>↓</b>                   |    |
|                      |                |                |       |          | 1                          |                   |                    | annia.          | <b>^</b>                   |    |
|                      |                |                |       |          | 1   ↓                      |                   |                    |                 |                            |    |
|                      |                |                |       |          | ]   '                      | 1                 |                    |                 | File B. I                  |    |
|                      |                |                |       |          | ]                          |                   |                    |                 | Filter Pack:  I <u>N/A</u> |    |
|                      |                |                |       |          | Scree<br>Estimated 3       | - ****** <b>=</b> |                    |                 | N/A                        |    |
| ***                  |                |                | -     |          | Stainless or Galyanize     |                   |                    |                 | IN/A                       |    |
|                      |                |                |       | <u> </u> | Seamess of Oglyanize       | <u> </u>          |                    |                 |                            |    |
| <u> </u>             |                |                |       |          | 1 1                        |                   |                    |                 |                            |    |
|                      |                |                | 1     | ,        | Well/Boring De             | epth 🗏            |                    |                 | 1                          |    |
| ļ                    |                | <u> </u>       |       | <u> </u> | 29' 1"                     |                   |                    | 890000<br>84000 | ▼                          | _  |



141 28th Ave South Waite Park MN 56387 Phone: (320) 251-5090 Fax: (320)259-0594 drill@trautwells.com

Borehole Diameter - 1 3/4"

### FIELD BORING LOG

| Project Name   | Former Schmunk      | 's Grocery  |               |               | Job                                     | Number                           |                          | 809198          |      |                             |
|--|---------------------|---|---------------|---------------|---|----------------------------------|--------------------------|-----------------|------|-----------------------------|
| Location   | 315 Lake Ave,       | Bemidji   |               |               | Wel                                     | l/Boring Name                    |                          | Ken Nye         |      |                             |
| Engineer/Client _  | Terraco             | n   |               |               | Uni                                     | que Number                       |                          | Not Assigne     | d    |                             |
| Date Completed   | 6/3/2010            | 0   |               | Driller       |   | John Scharnberg                  |                          | Assistant       |      |                             |
| Well\Boring Depth Drilling Method Drilling Fluid Borehole Diameter Static Water Level Screen Material Screen Length Casing Material Casing Length Casing Diameter Filter Pack Used Filter Pack Interval Grout Material Grouting Interval | 29' 1' 16' ( Stain) | " (basement f Driven point None 1 3/4" (basement flot less or Galvan Estimated 3 fl Galvanized Estimated 26' 1 1/4" N/A N/A N/A N/A | por)<br>nized | Dimer         |   | Casing: Estimated 26' Galvanized |                          | Casing Diameter | GRAM | In Basement  Grout: N/A N/A |
| Grouting Method  |                     | N/A   |               |               |   |                                  |                          |                 |      |                             |
| Pump   | Jacuzzi 1/          | /2 HP SWJ C   | entrifical    |               |   |                                  |                          |                 |      |                             |
|  | Visual Geology      | Classifatio   | n:            |               |   |                                  |                          |                 |      |                             |
| Material   |                     | Hardness  |               | То            | ]                                       | !                                |                          |                 |      |                             |
| Drift  |                     |   | 0             | 29            | , | <b>↓</b>                         | <b></b>                  |                 |      | <b>†</b>                    |
|  |                     |   |               | <del></del> - |   |                                  |                          |                 |      | Filter Pack:                |
|  |                     |   |               |               | -                                       | Scree                            | -3860000                 |                 |      | N/A                         |
|  |                     |   |               |               |   | Estimated 3 fi                   | <b>↓</b><br>p <b>t</b> h |                 |      | N/A                         |

|              | LOG OF WI   | ELL N      | 10.         | M                                     | P-1              |                 |                        |                        |                            | Р                                    | age                                     | 1 o                | f 1              |  |
|--------------|---|------------|-------------|---------------------------------------|------------------|-----------------|------------------------|------------------------|----------------------------|--------------------------------------|---|--------------------|------------------|--|
| CLI          | ENT<br>Former Schmunk's Grocery - MPCA  |            |             |                                       |                  |                 |                        |                        |                            |                                      |   |                    |                  |  |
| SIT          |   | PRO        | JEC         | T                                     |                  | arm             | ar Bab                 | mussi                  | de Cr                      | 'DEDEL                               |   |                    |                  |  |
| Dennuji, Mix |   |            |             | ii, MN Former Schmunk's Groot SAMPLES |                  |                 |                        |                        |                            |                                      |   |                    |                  |  |
| GRAPHIC LOG  | DESCRIPTION   | DEРТН, ft. | USCS SYMBOL | NUMBER                                | TYPE             | RECOVERY, in.   | SPT - N<br>BLOWS / ff. | WATER<br>CONTENT, %    | FIELD VAPOR<br>TEST (PPM)* | SOIL SAMPLE<br>SENT TO<br>LABORATORY | CO<br>AT                                | VER OF<br>GRADE    | METT.            |  |
|              | SAND<br>Black, Fine, Moist  | _          | SP          | 1                                     | MC               | 48              |                        |                        | <1                         |                                      |   |                    | 2.5              |  |
|              | Vith Silt and Organics SAND Brown, Fine, Moist Frozen to 4'   |            | SP          |                                       |                  |                 |                        |                        |                            |                                      | 3" CEMBRT                               |                    |                  |  |
|              |   | -          | -           |                                       |                  |                 |                        | :                      | <1                         |                                      |   |                    | RY               |  |
|              |   | 5          | SP          | 2                                     | МС               | 44              |                        |                        | <1                         |                                      |   |                    | BENTONITE SLURRY |  |
|              |   | -<br>  -   |             |                                       |                  |                 | :                      |                        | <1                         |                                      | į,                                      |                    | SAND             |  |
|              |   | 10-        | SP          | 3                                     | МС               | 50              |                        |                        |                            |                                      | 8-28.                                   | SAND<br>C          | _                |  |
|              |   | -          |             |                                       |                  | ſ               |                        |                        | <1                         |                                      | GRANULAR BE                             | -                  | BENTONITE        |  |
|              | 15  |            |             |                                       |                  |                 |                        |                        | <1                         |                                      |   | SAI                |                  |  |
|              | END OF BORING   | 15—        |             |                                       |                  | ~               |                        |                        |                            |                                      | API<br>DE                               | PROXIM<br>PTH - 15 | ATE<br>R.        |  |
|              |   |            |             |                                       |                  |                 |                        |                        |                            |                                      |   |                    |                  |  |
| The<br>betv  | stratification lines represent the approximate boundary lines veen soil and rock types; in-situ, the transition may be gradual. |            | (1          | * NI<br>-DL) (                        | ibni C<br>eno to | cates<br>(1) pa | a readin<br>art per n  | g of lea<br>hillion is | s than<br>obutyle          | the field one equiv                  | letect<br>alents                        | ion l<br>(pp       | mi)              |  |
|              | TER LEVEL OBSERVATION, ft   |            |             |                                       |                  |                 | ING S                  |                        |                            |                                      | 2-                                      | 22                 | 06               |  |
| WL           | AD AD SELL  |            |             | ì                                     | ا ر              |                 | ING C                  |                        |                            |                                      |   | 22-                |                  |  |
| WL           |   |            | _•          | J                                     |                  | RIG             |                        | MATI                   |                            | OREMA                                | *************************************** |                    | NC               |  |
| 701          |   |            |             |                                       |                  |                 |                        | <b></b>                | [J                         | OB#                                  | 410                                     | 3/0                | 61               |  |

|                            | LOG OF WE   | LL N                             | Ю.          | M        | P-2      |               |                        |                     |                            | Р                                    | age 1 of 1   |  |  |  |
|----------------------------|---|----------------------------------|-------------|----------|----------|---------------|------------------------|---------------------|----------------------------|--------------------------------------|--|--|--|--|
| CLI                        | ENT Former Schmunk's Grocery - MPCA   |                                  |             |          |          |               |                        |                     |                            |                                      |  |  |  |  |
| SIT                        | 102 Lake Ave N.E.   | PROJECT Former Schmunk's Grocery |             |          |          |               |                        |                     |                            |                                      |  |  |  |  |
|                            | Bemidji, MN   |                                  |             |          | SAN      | muni          | ('S Gr                 | s Grocery<br>TESTS  |                            |                                      |  |  |  |  |
| GRAPHIC LOG                | DESCRIPTION   | DЕРТН, ft.                       | USCS SYMBOL | NUMBER   | ТУРЕ     | RECOVERY, In. | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | FIELD VAPOR<br>TEST (PPM)* | SOIL SAMPLE<br>SENT TO<br>LABORATORY | COVER OF WELL<br>AT GRADELINE                                |  |  |  |
|                            | SILTY SAND<br>Black, Fine, Moist  |                                  | SM          | 1        | MC       | 55            |                        |                     | <1                         |                                      | CENENT   |  |  |  |
|                            | Organic, Frozen SAND Brown, Fine, Moist Frozen to 5'  |                                  | SP          |          | MC       |               |                        |                     | <1                         |                                      |  |  |  |  |
|                            |   |                                  |             | 2        | МС       | 44            |                        |                     | <1                         |                                      | RRY  |  |  |  |
|                            |   |                                  |             |          |          |               |                        |                     | <1                         |                                      | GRANULAR SLURRY BENTONITE                                    |  |  |  |
|                            |   | -                                |             |          |          |               |                        |                     | <1                         |                                      | 2  |  |  |  |
|                            |   | 10                               |             | 3        | МС       | 44            |                        |                     | <1                         |                                      | S TEEL SAND  PESIOT ENERH  GRANULAR SLURRY  BENTONITE        |  |  |  |
| erranium <del>Sintre</del> | 15<br>END OF BORING   | 15                               | <u> </u>    | <u> </u> | <u> </u> |               |                        |                     | <1                         |                                      | SAND   |  |  |  |
| <b>-</b>                   |   |                                  |             |          |          |               |                        |                     |                            |                                      | DRILLED AS<br>SEPERATE HOLE<br>APPROVIMATE<br>DEPTH - 15 ft. |  |  |  |
| betv                       | stratification lines represent the approximate boundary lines reen soil and rock types: in-situ, the transition may be gradual.   |                                  | (1          | FDL)     | of one   | (1) p         | art per n              | nillion is          | sobutyle                   | tne field<br>ene equiv               | detection limit<br>alents (ppmi).                            |  |  |  |
| WA<br>WL                   | TER LEVEL OBSERVATION, ft  \[ \textstyle \textst |                                  |             |          | ŀ        |               | ING S                  |                     |                            |                                      | 2-23-06  |  |  |  |
| WL                         | A MD A AD SELL  | 20                               |             |          | <b>7</b> | RIG           |                        |                     |                            | OREMA                                | 2-23-06<br>AN KWC  |  |  |  |
| WL                         |   |                                  |             |          |          |               |                        |                     |                            | OB#                                  | 41037061   |  |  |  |

|             | LOG OF V   | VELL N      | Ю.                               | M          | P-3              |                 |                        |                     |                            | Р                                    | age 1                            | of 1               |  |  |  |
|-------------|--|-------------|----------------------------------|------------|------------------|-----------------|------------------------|---------------------|----------------------------|--------------------------------------|----------------------------------|--------------------|--|--|--|
| CL          | ENT Former Schmunk's Grocery - MPCA  |             |                                  |            |                  |                 |                        |                     |                            |                                      |                                  |                    |  |  |  |
| SIT         | E 102 Lake Ave N.E.  | PRO         | PROJECT Former Schmunk's Grocery |            |                  |                 |                        |                     |                            |                                      |                                  |                    |  |  |  |
| -           | Bemidji, MN  |             |                                  |            | k's Gr           | OCETY<br>TESTS  |                        |                     |                            |                                      |                                  |                    |  |  |  |
| GRAPHIC LOG | DESCRIPTION  | DЕРТН, ft.  | USCS SYMBOL                      | NUMBER     | ТҮРЕ             | RECOVERY, in.   | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | FIELD VAPOR<br>TEST (PPM)* | SOIL SAMPLE<br>SENT TO<br>LABORATORY | COVER C<br>AT GRAL               | OF WELL<br>DE LINE |  |  |  |
|             | SAND<br>Black, Very Fine to Fine, Moist  | _           | SP                               | 1          | МС               | 54              |                        |                     | <1                         |                                      | CEMBY CEMBY                      |                    |  |  |  |
|             | Trace Organics and Silt SAND Brown, Very Fine to Fine, Moist   | -<br>-<br>- | SP                               |            | мс               |                 |                        |                     | <1                         |                                      | CRUMBLES 0.0<br>BENTONITE SLURRY |                    |  |  |  |
|             |  | 5—          |                                  | 2          | МС               | 50              |                        |                     | <1                         |                                      |                                  |                    |  |  |  |
|             | 8  |             |                                  |            |                  |                 |                        |                     | <1                         |                                      | GRANULAR BENTONITE               |                    |  |  |  |
|             | SAND<br>Brown, Fine, Moist   | 10-         | SP                               | 3          | MC               | 50              |                        |                     | <1                         |                                      | SAND                             | BENTON 1E          |  |  |  |
|             | 15<br>END OF BORING  | 15          |                                  |            |                  |                 |                        |                     | <1                         |                                      | PE<br>SLOTTED                    | )                  |  |  |  |
| The<br>bety | stratification lines represent the approximate boundary lines<br>yeen soil and rock types: in-situ, the transition may be gradual. |             | (F                               | DL) c      | D indi<br>of one | cates<br>(1) pa | a readir<br>art per n  | ng of lea           | ss than<br>obutyle         | the field o                          | letection<br>alents (p           | ı limit<br>pmi).   |  |  |  |
| ·           | TER LEVEL OBSERVATION, ft  |             |                                  |            |                  |                 | ING S                  | -                   | 77.1                       |                                      |                                  | 2-06               |  |  |  |
| WL.         | WD Y AD  |             |                                  | <b>)</b> F | <b>,</b> [       |                 | ING C                  | OMPL                | ETED                       |                                      | 2-23                             | 3-06               |  |  |  |
| WL          | y wo y ad Ter  | ı dl        | _L                               | J          |                  | RIG             |                        | MATE                |                            | OREMA                                |                                  | WC                 |  |  |  |
| WL          |  |             | •                                |            |                  |                 |                        |                     | J                          | OB#                                  | 41037                            | 061                |  |  |  |

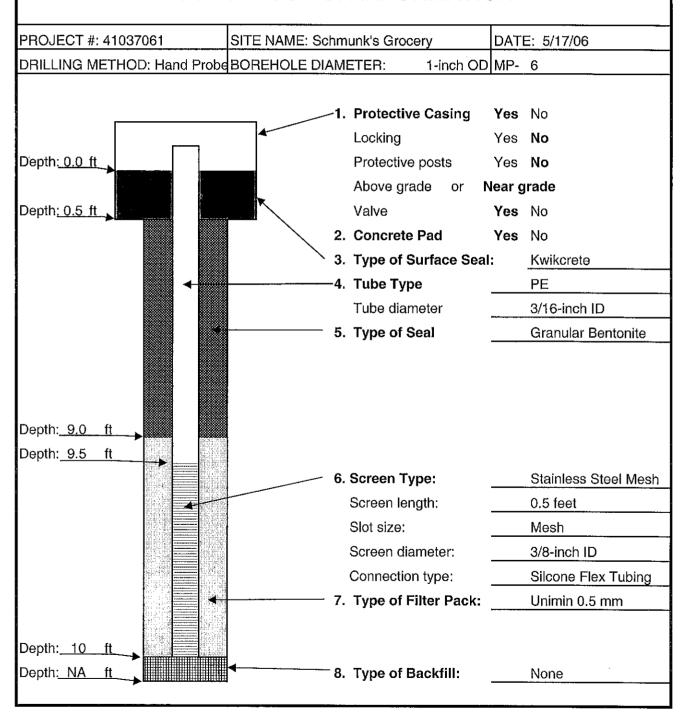
|  |   | OG OF WE   | LL N                                   | 0.          | M      | P-4      |                 |                        |                     |                            | Р                                    | age '             | of 1                   |  |
|--|---|--|--|-------------|--------|----------|-----------------|------------------------|---------------------|----------------------------|--------------------------------------|-------------------|------------------------|--|
| CLI                                    | ENT<br>Former Schmunk's Grocery - N                       | /IPCA  |  |             |        |          |                 |                        |                     |                            |                                      |                   |                        |  |
| SIT                                    | 102 Lake Ave N.E.   | THE RESERVE OF THE PROPERTY OF | PROJECT                                |             |        |          |                 |                        |                     |                            |                                      |                   |                        |  |
| ······································ | Bemidji, MN   |  | Former Schmunk's Grocery SAMPLES TESTS |             |        |          |                 |                        |                     |                            |                                      |                   |                        |  |
| GRAPHIC LOG                            | DESCRIPTION   |  | ОЕРТН, А.                              | USCS SYMBOL | NUMBER | ТҮРЕ     | RECOVERY, in.   | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | FIELD VAPOR<br>TEST (PPM)* | SOIL SAMPLE<br>SENT TO<br>LABORATORY | COVE<br>AT G      | R OF WELL<br>RADE LINE |  |
|  | SAND<br>Brown, Fine, Moist                                |  |  | SP          | 1      | MC       | 60              |                        |                     | <1                         |                                      | 100 E             |                        |  |
|  | some Organic, Frozen SAND Brown, Fine, Moist Frozen to 4' |  | -                                      | SP          |        | мс       |                 |                        |                     | <1                         |                                      | SAND 9"           |                        |  |
|  |   |  | 5—<br>—<br>—                           |             | 2      | МС       | 45              |                        |                     | <1                         |                                      | NOLUBE            |                        |  |
|  |   |  |  |             |        |          |                 |                        |                     | <1                         |                                      | GRANULAR          | BENTONITE              |  |
|  |   |  | <br>10                                 |             | 3      | МС       | 48              |                        |                     | <1                         |                                      | SAND              |                        |  |
|  |   |  | <u> </u>                               |             |        |          |                 |                        |                     | <b> </b>                   |                                      | H-BENTONITE       | POWDER                 |  |
|  |   |  |  |             |        |          |                 |                        |                     |                            |                                      | GRANULAR I        | BENTONITE              |  |
|  | 15<br>END OF BORING                                       | ***************************************  | <br>15                                 |             |        |          |                 |                        |                     | <1                         |                                      | APP               | ROXIMATE<br>TH - 15 IL |  |
|  |   |  |  |             |        |          |                 |                        |                     |                            |                                      | L LEP             | m- GE                  |  |
| the                                    | stratification lines represent the approximate bou        | undary lines<br>lay be gradual.  |  | (F          | * N    | D indi   | cates<br>(1) pa | a readin               | g of les            | s than                     | the field o                          | detecti<br>alents | on limit<br>(ppmi)     |  |
|  | TER LEVEL OBSERVATION, ft                                 |  |  |             |        |          |                 | ING S                  |                     |                            |                                      |                   | 23-06                  |  |
|  | Ţ MD Ţ AD   | 7 Terra  |  | سے س        |        | <u> </u> | BOR             | ING C                  | OMPL                | ETED                       | l                                    |                   | 23-06                  |  |
| WL<br>WL                               | Ā.  | uen  | عال                                    | _[          |        |          | RIG             |                        | MATE                | RIX F                      | OREMA                                | ١N                | KWC                    |  |
| WL                                     |   |  | ÷                                      |             |        |          |                 | ·                      |                     | J                          | OB#                                  | 4103              | 37061                  |  |

|             | LOG OF W   | ELL N                                  | 10.         | M      | P-5         |                | ·                      |                     |                            | P                                    | age             | 1 o             | f 1    |  |
|-------------|--|--|-------------|--------|-------------|----------------|------------------------|---------------------|----------------------------|--------------------------------------|-----------------|-----------------|--------|--|
| CLI         | ENT Former Schmunk's Grocery - MPCA  |  |             |        | <del></del> |                |                        |                     |                            |                                      | -               |                 |        |  |
| SIT         | E 102 Lake Ave N.E.  | PROJECT Former Sahmunk's Gracery       |             |        |             |                |                        |                     |                            |                                      |                 |                 |        |  |
|             | Bemidji, MN  | Former Schmunk's Grocery SAMPLES TESTS |             |        |             |                |                        |                     |                            |                                      |                 |                 |        |  |
|             |  |  |             |        |             |                |                        |                     |                            |                                      |                 |                 |        |  |
| GRAPHIC LOG | DESCRIPTION  | DЕРТН, ft.                             | USCS SYMBOL | NUMBER | TYPE        | RECOVERY, In.  | SPT - N<br>BLOWS / ft. | WATER<br>CONTENT, % | FIELD VAPOR<br>TEST (PPM)* | SOIL SAMPLE<br>SENT TO<br>LABORATORY | CO<br>AT        | VER OF<br>GRADE | METT   |  |
|             | SILTY SAND<br>Black, Fine, Moist   |  | SM          | 1      | МС          | 60             |                        |                     | <1                         |                                      | VAULT           |                 | CEMENT |  |
|             | Organic, Frozen SAND   |  | SP          |        | МС          |                |                        |                     |                            |                                      | $\ \cdot\ ^{-}$ | SANI            |        |  |
|             | Brown, Fine, Moist<br>Frozen to 4'   |  |             |        |             |                |                        |                     | <1                         |                                      |                 |                 |        |  |
|             |  | 5                                      |             | 2      | MC          | 50             |                        |                     | <1                         |                                      | HEINCHNER       | SLURRY          |        |  |
|             |  |  |             |        |             |                |                        |                     | <1                         |                                      | ,               | r III           |        |  |
|             | Trace Gravel at 8'   |  |             |        |             |                |                        |                     |                            |                                      |                 | BENTONITE       |        |  |
|             |  | 10                                     |             | 3      | MC          | 48             |                        |                     | <1                         |                                      | CNAC            |                 |        |  |
|             |  |  |             |        |             |                |                        |                     | <1                         |                                      | STEEL           |                 | POWDER |  |
|             |  |  |             |        |             |                |                        |                     |                            |                                      | STAINLESS STEEL | BENTONITE       |        |  |
|             | 15   | _                                      |             |        |             |                |                        |                     | <1                         |                                      |                 | Γ               | SAND   |  |
|             | END OF BORING  | 15                                     |             |        |             |                |                        |                     |                            |                                      | AI DE           | PPROXIN         |        |  |
| The         | stratification lines represent the approximate boundary lines<br>ween soil and rock types: in-situ, the transition may be gradual. | •                                      | (1          | * N    | D indi      | cates<br>(1) n | a readin               | g of lea            | s than                     | the field o                          | detect          | ion l           | imit   |  |
|             | TER LEVEL OBSERVATION, ft  |  | (I          | h/h/ ( | -           |                | ING S                  |                     |                            | ane equiv                            |                 | . (pp<br>-23    |        |  |
| WL          |  |  |             |        |             | *******        | ING C                  |                     |                            | )                                    |                 | -23             |        |  |
| WL          | A MD A VD AU   | JL                                     |             |        |             | RIG            |                        | MATE                | RIX F                      | OREM/                                | \N              | K١              | ΝC     |  |
| WL          |  |  |             |        |             |                |                        |                     | J                          | OB#                                  | 410             | 370             | 61     |  |



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## SOIL GAS MONITORING POINT CONSTRUCTION INFORMATION



# TABLE 9 - MONITORING WELL COMPLETION INFORMATION FORMER SCHMUNK'S GROCERY - MPCA BEMIDJI, MINNESOTA TERRACON PROJECT NO. 41037061

| Well<br>Number     | Unique<br>Number | Install<br>Date | Surface<br>Elevation | Riser<br>Elevation | Well<br>Depth | Bottom<br>Elevation | Screened<br>Interval                    |
|--------------------|------------------|-----------------|----------------------|--------------------|---------------|---------------------|---|
| MW-1               | 495233           | 09/11/91        | _                    | 98.68              | 38.56         | 60.12               | 60.1 - 70.1                             |
| MW-2               | 495234           | 09/12/91        | _                    | -                  | 31.42         | -                   | -                                       |
| MW-3               | 495235           | 09/13/91        | -                    | -                  | 30.15         | -                   | -                                       |
| MW-4               | ??               | 06/02/92        | -                    | 99.65              | 39.68         | 59.97               | 60.0 - 70.0                             |
| MW-5               | 482096           | 06/02/92        | -                    | 92.50              | 31.88         | 60.62               | 60.6 - 70.6                             |
| MW-6               | 482099           | 06/02/92        | -                    | 91.67              | 31.17         | 60.50               | 60.5 - 70.5                             |
| MW-7               | 482097           | 06/02/92        | -                    | 97.23              | 36.15         | 61.08               | 61.1 - 71.1                             |
| MW-8               | 482098           | 06/02/92        | -                    | 91.74              | 30.27         | 61.47               | 61.5 - 71.5                             |
| MW-9               | 670131           | 03/14/03        | 88.16                | 90.26              | 31.48         | 60.26               | 60.3 - 70.3                             |
| MW-10              | 670132           | 03/14/03        | 88.06                | 89.87              | 31.55         | 59.87               | 59.9 - 69.9                             |
| TW-A               | -                | -               | -                    | -                  | 35.40         | -                   | -                                       |
| TW-B               | -                | -               | -                    | -                  | 45.40         | -                   | -                                       |
| TW-C               | -                | -               | -                    | -                  | 35.20         | -                   | -                                       |
| MW-1 1             | 495233           | 09/11/91        | 1373.71              | 1375.92            | 38.56         | 1337.36             | 1337.3-1347.3                           |
| MW-2 1             | 495234           | 09/12/91        | 1368.43              | 1370.07            | 31.42         | 1338.65             | 1338.6-1348.6                           |
| MW-3 1             | 495235           | 09/13/91        | 1367.51              | 1367.34            | 30.15         | 1337.19             | 1337.2-1347.2                           |
| MW-4               | ??               | 06/02/92        | 1374.93              | 1376.82            | 39.68         | 1337.14             | 1337.1-1347.1                           |
| MW-5               | 482096           | 06/02/92        | 1367.95              | 1369.75            | 31.88         | 1337.87             | 1337.9-1347.9                           |
| MW-6               | 482099           | 06/02/92        | 1366.69              | 1368.95            | 31.17         | 1337.78             | 1337.8-1347.8                           |
| MW-7 <sup>1</sup>  | 482097           | 06/02/92        | 1372.28              | 1374.34            | 36.15         | 1338.19             | 1338.8-1348.2                           |
| MW-8 <sup>1</sup>  | 482098           | 06/02/92        | 1366.90              | 1369.00            | 30.27         | 1338.73             | 1338.7-1348.7                           |
| MW-9 1             | 670131           | 03/14/03        | 1365.50              | 1367.47            | 31.48         | 1335.99             | 1336.0-1346.0                           |
| MW-10 <sup>1</sup> | 670132           | 03/14/03        | 1365.10              | 1367.08            | 31.55         | 1335.53             | 1335.5-1345.5                           |
| TW-A               | -                | -               | 1374.20              | 1376.48            | 35.40         | 1341.08             | 1341.0-1351.0                           |
| TW-B <sup>1</sup>  | -                | _               | 1373.60              | 1376.26            | 45.40         | 1330.86             | 1330.8-1340.8                           |
| TW-C 1             | _                | _               | 1373.80              | 1376.04            | 35.20         | 1340.84             | 1340.8-1350.8                           |
|                    |                  |                 |                      |                    |               |                     | 111111111111111111111111111111111111111 |

Note: Monitoring well construction information obtained from WSN's "Annual Monitoring Report June 2003". Elevations prior to July 2007 are in feet and referenced an an unidentifed benchmark with an assumed elevation of 100.00 feet as per information contained in WSN's report.

3/28/2012

<sup>&</sup>lt;sup>1</sup> Monitoring well surface and riser elevations resurveyed by Moore Engineering, Inc. in 2006/2007 and are in USGS feet as referenced to UTM 15 17250562.9950 (n) and 1184825.840 (e) with an elevation of 1367.20 feet above mean sea level.

<sup>&</sup>quot; - " Not available or applicable