

Well Management Section
625 North Robert Street
P.O. Box 64502
St. Paul, Minnesota 55164-0502
651-201-4600 or 800-383-9808
health.wells@state.mn.us
www.health.state.mn.us/wells



MDH Use Only	
Date Received	_____
Amount Received	_____
Deposit Number	_____
Application Number	_____
\$275 GTED (227)	_____
Date Approved	_____

Permit Application to Operate a Groundwater Thermal Exchange Device (GTED)

With reinjection to the aquifer pursuant to Minnesota Statutes, section 1031.621 and rules adopted thereunder.

- Please print or type the requested information.
- Incomplete applications cannot be processed and will be returned to the applicant.
- Submit the completed application, the nonrefundable \$275 application fee, site plan, schematic of GTED, well construction record(s), (if applicable), and required signatures.
- Make check or money order payable to the Minnesota Department of Health or pay by credit card using the attached Credit Card Payment Information form.
- **Mail completed application and fee to address listed above or fax to 877-434-9853.**

General Project Data

_____	_____
Certified Representative Name	Certified Representative No.
_____	_____
Company Name	Company License No.
_____	_____
Email or Mailing Address Where Approved Permit Should be Delivered	Telephone No.

GTED Location

_____	_____	_____	_____	_____	_____	_____
County	Township Name	Property Identification No.				
_____	_____	_____	_____	_____	_____	_____
Township No.	Range No.	Section No.	(Quarters – List Smallest to Largest)	Qtr	Qtr	Qtr
_____	_____	_____	_____	_____	_____	_____
Street Address	_____	City	_____	State	_____	ZIP Code

Property Owner

_____	_____	_____	_____
Property Owner Name	_____	_____	_____
Street Address	_____	City	_____
_____	_____	State	_____
_____	_____	_____	ZIP Code
Property Owner Email Address	_____	_____	_____

GTED Construction Details

Supply the following information where appropriate. Write "unknown" where the information is not available.

Well Information	Existing Supply Well	Existing ReInjection Well	Proposed Supply Well	Proposed ReInjection Well
Minnesota Unique Well No. (Available from Licensed Well Contractor)				
Well Depth				
Hole Diameter				
Casing Diameter				
Casing Depth				
Well Construction Date				
Well Pump Installation Date				
Type of Well Pump				

Existing Well(s): Please submit a copy of the well construction record(s) along with this form.

Proposed Well(s): If the well(s) are not yet constructed, write in estimated depths, sizes, and dates. This information can be obtained from the licensed well contractor.

Heat Pump Unit Description

Manufacturer Name _____ Model No. _____

Maximum Flow Rate (g.p.m.) _____ Installation Date (actual or proposed) _____

Installer Name _____

Water Withdrawal Information

Indicate Usage Purpose: Heating Cooling Both

Total Amount of Water to be ReInjected into the Aquifer _____ (gallons per year [g.p.y.])

For a proposed pumping schedule, provide:

Rate (gallons per minute [g.p.m.]) _____ Times (example: October to May) _____

Duration (days per month) _____ (months per year) _____ (hours per day) _____

Note: GTEDs withdrawing more than 10,000 gallons per day (e.g., 6.9 g.p.m. continuous operation for 24 hours) or 1 million gallons per year (e.g., 1.9 g.p.m. continuous operation for 365 days) requires an appropriations permit from the Minnesota Department of Natural Resources. More information is available at [Water Appropriations Permit Program](#)

(www.dnr.state.mn.us/waters/watergmt_section/appropriations) or mpars.dnr@state.mn.us.

GTED Well(s) Location

The well(s) must be located and constructed in accordance with the provisions of the Minnesota Rules, chapter 4725, Wells and Borings.

Indicate well(s) location on an attached site plan. Show isolation distances from the supply and injection wells to any contamination sources specified in Minnesota Rules, part 4725.4450 and distances from gas pipes, liquid propane tanks, electrical lines, buildings, and other wells.

Attach Schematic with GTED Specifications

(A sample schematic of a GTED is attached.)

Schematic must indicate:

- Fifteen-psi pressure valve at discharge well.
- Heat pump's solenoid valve on discharge side.
- Pressure gauge in line between pressure valve and solenoid valve.
- Device(s) to provide automatic shutdown of system if discharge line pressure is below 15 psi.
- In-line thermometer in heat pump inlet and outlet lines.
- Check valve in line from supply well.
- Taps (unthreaded) for draining and sampling in supply and discharge lines.
- Shutoff valves in supply and discharge lines.
- Filter in discharge line from heat pump.
- Flow control valve and flow meter in supply line.
- Air release valves.
- Any other provisions or installed devices, such as a pressure tank or isolation valves for servicing heat pump.

Specifications must indicate:

- Piping materials.
- Flow control valve setting.
- Provision for pressure testing for system.
- Provision for disinfecting the completed system.

Note: Pipe installations must comply with Minnesota Rules, chapter 4714 (Minnesota Plumbing Code), including materials and joint methods.

Certified Representative Signature

As a condition of this permit, I agree to construct this GTED under the provisions of Minnesota Statutes, chapter 103I and Minnesota Rules, chapter 4725.

Certified Representative Name (print)	Certified Representative Signature	Date
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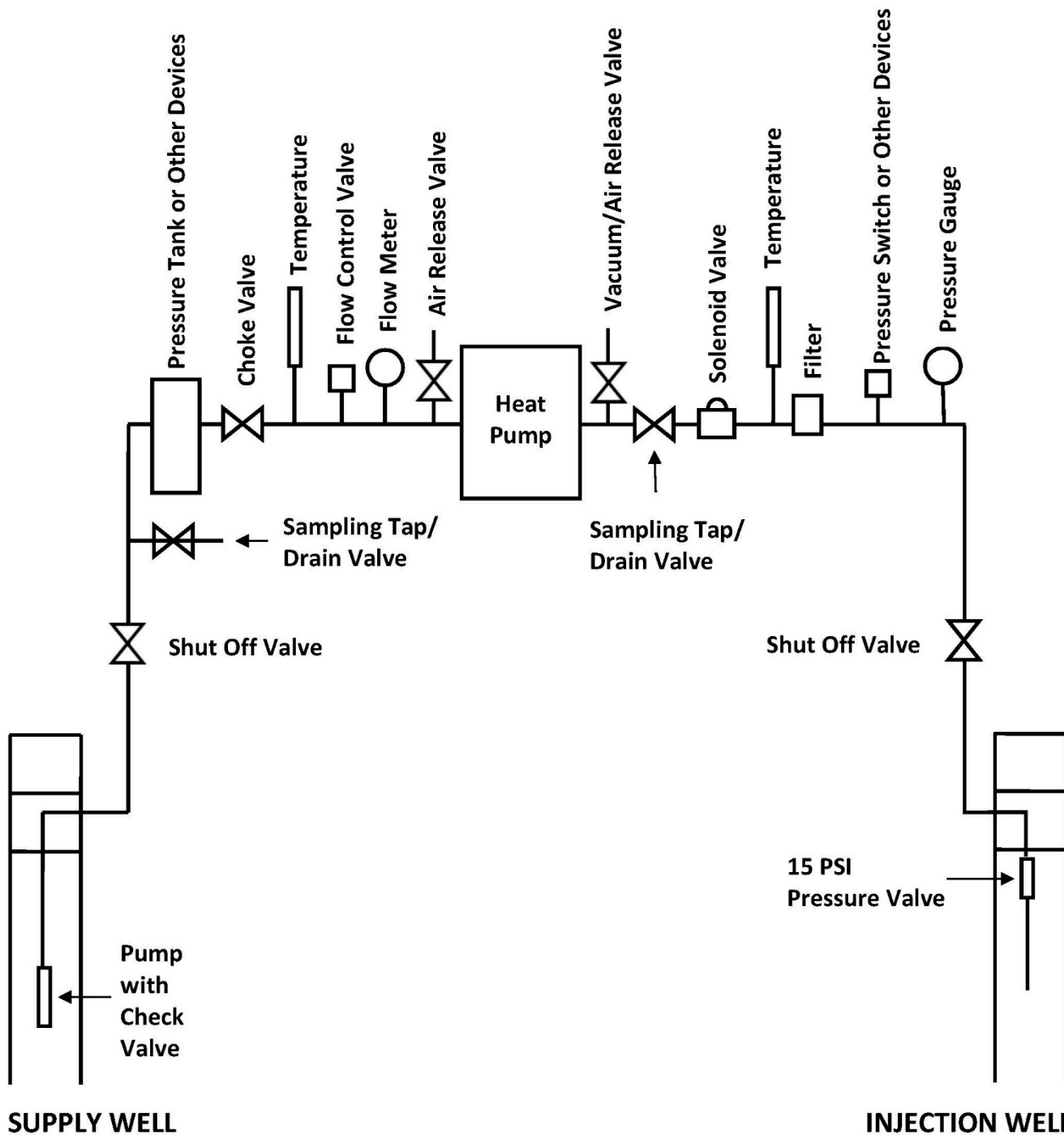
Property Owner Signature

As a condition of this permit, I agree to operate and maintain this GTED under the provisions of Minnesota Statutes, chapter 103I and Minnesota Rules, chapter 4725 and to allow inspection by the commissioner of health or their agent during regular work hours.

Property Owner Name (print)	Property Owner Signature	Date
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Information provided on this form is classified as public information under Minnesota Statutes, chapter 13.
 To obtain this information in a different format call 651-201-4600.
 Publications\Form GTED Application 03/18/2021R

Sample Piping Diagram for Groundwater Thermal Exchange Device



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Credit Card Payment Information

Minnesota Unique Well No. _____

Minnesota Well and Boring Sealing No. **H** _____

Please complete and return this form if fee(s) payment is by credit card.

Note: If the *notification form* already has the preprinted credit card information box **DO NOT** use this form.

Effective May 1, 2023, credit card payments to the Minnesota Department of Health Well Management Section will automatically include a 2.15% convenience fee charged and collected by US Bank.

Fee Type

Bored Geothermal Heat Exchanger Construction Permit
Groundwater Thermal Exchange Permit
Elevator Boring Permit
Environmental Well Construction Notification
Exploratory Boring Notification
License and/or Rig Registration
Maintenance Permit
Variance Application
Well Construction Notification
Well Sealing Notification

Credit Card Information

Credit Card Type: Visa MasterCard Discover Expiration Date _____

Total Amount to be Charged _____

2.15% of total convenience fee charged by US Bank

Cardholder Name _____

Credit Card Number _____ 3-Digit Security Code (Printed on back of card) _____

I understand Minnesota Department of Health's Tennessee Warning for credit card use is available by calling 651-201-4600 or on Well Management Section's website at:

Tennessee Warning (www.health.state.mn.us/communities/environment/water/wells/tw.html).

Authorized Signature _____ Date _____