### **Inspect Minnesota & Midwest Soil Testing**

P.O. Box 383 Hugo, M	Brian Humpal				
651-492-7550/Brian@midwestsoiltesting.com		MPCA Licensed Advanced Inspector			
SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT					
Date: October 26, 2016Time: 3:00 PMOwner: Elizabeth Hafferman					
Inspection Address: 508 Wildwood Road, Mahtomedi, MN 55115					

### **REPORT SUMMARY**

I have performed an "MPCA Compliance Inspection" on this system, have reviewed the history of the system with the owner, Elizabeth Hafferman, and have reviewed the original asbuilt records on file at the City of Mahtomedi. This system consists of two pre-cast septic tanks and a gravelless trench drainfield.

Predicated on my inspection of the system, my review of the history of the system with the owner, and my review of the records, it is my opinion that this system <u>presently meets</u> MPCA minimum compliance inspection requirements.

Inspect Minnesota and Midwest Soil Testing have been hired to perform a compliance inspection of this SSTS for compliance with local ordinances pursuant to Minn. Stat. § 115.55 (2013). This compliance inspection covers only the criteria required by Minn. Stat. § 115.55 Subd. 5a (2013) and Minn. R. 7080.1500 (2011). A compliance inspection is an indication of the current compliance status of the system and does not guarantee the performance or longevity of this system beyond the date of inspection, as it is impossible to determine the future performance of any system. Inspect Minnesota and Midwest Soil Testing disclaim any use of this compliance inspection beyond determining SSTS compliance pursuant to Minn. Stat. § 115.55 Subd. 5a (2013) and Minn. R. 7080.1500 (2011).

Please contact me should you have any questions.

Brian Humpal

Brian Humpal

Minnesota Pollution Control Agency 520 Lafayette Road North St. Paul, MN 55155-4194	-	ce Inspection Form e Sewage Treatment Systems (SSTS) Doc Type: Compliance and Enforcement						
<b>Instructions:</b> Inspection results based on Minnesota Por requirements and attached forms – additional local requi		For local tracking purposes:						
Submit completed form to Local Unit of Governmer within 15 days	nt (LUG) and system owner							
System Status	System Status							
System status on date (mm/dd/yyyy): <u>10/26/</u> Compliant – Certificate of Complia (Valid for 3 years from report date, unless shi frame outlined in Local Ordinance.)	nce 🗌 Noncom	npliant – Notice of Noncompliance rade Requirements on page 3)						
Reason(s) for noncompliance (check all a Impact on Public Health (Compliance Com Other Compliance Conditions (Compliance Tank Integrity (Compliance Component #2 Other Compliance Conditions (Compliance	ponent #1) – Imminent threat to Component #3) – Imminent thre 2) – Failing to protect groundwat	eat to public health and safety er						

		Operating p	permit/monitoring	plan requiren	nents (Compl	liance Componen	nt #5) – Noncompliar	١t
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### **Property Information**

Parcel	ID# or	Sec/Twp/Range:	
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Property address:	508 Wildwood Road, Mahtomedi, MN 55115	Reason for inspection: Property Sale
Property owner: Elizabeth Hafferman		Owner's phone: _ 651-334-4364
or		
Owner's representative:		Representative phone:
Local regulatory authority: Washington County		Regulatory authority phone: 651-430-4052
Brief system descr	iption:Two pre-cast septic tanks and a gravelless tre	ench drainfield.
Comments or reco	mmendations:	

Comments or recommendations:

### Certification

I hereby certify that all the necessary information has been gathered to determine the compliance status of this system. No determination of future system performance has been nor can be made due to unknown conditions during system construction, possible abuse of the system, inadequate maintenance, or future water usage.

Inspector name:	Brian Humpal	Certification number:	L5342
Business name:	Inspect Minnesota, Midwest Soil Testing	License number:	L2896
Inspector signatur	e: Brian Humpal	Phone number:	651-492-7550

### **Necessary or Locally Required Attachments**

🛛 Soil boring logs	🛛 System/As-built drawing	Forms per local ordinance
Other information (list):	Report Summary, Property Informatio	n, Disclaimer, License

### 1. Impact on Public Health – Compliance component #1 of 5

# Compliance criteria: System discharge sewage to the ground surface. System discharge sewage to drain tile or surface waters. System cause sewage backup into dwelling or establishment.

### Any "yes" answer above indicates the system is an Imminent Threat to Public Health and Safety.

### Comments/Explanation:

None of the above found.

A soil boring over the drainfield indicated no signs of ponding or black/gray soils.

### 2. Tank Integrity - Compliance component #2 of 5

### **Compliance criteria:**

System consists of a seepage pit, cesspool, drywell, or leaching pit.	🗌 Yes	🛛 No
Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.		
Sewage tank(s) leak below their designed operating depth.	🗌 Yes	🛛 No
If yes, which sewage tank(s) leaks:		

### Any "yes" answer above indicates the system is Failing to Protect Groundwater.

### Comments/Explanation:

Lowered underwater camera into tanks - baffles and tank walls OK.

### Verification method(s):

- Searched for surface outlet
- Searched for seeping in yard/backup in home
- Excessive ponding in soil system/D-boxes
- Homeowner testimony (See Comments/Explanation)
- "Black soil" above soil dispersal system
- System requires "emergency" pumping
- Performed dye test
- Unable to verify (See Comments/Explanation)
- Other methods not listed (See Comments/Explanation)

### Verification method(s):

- Probed tank(s) bottom
   Examined construction records
- Examined Tank Integrity Form (Attach)
- Observed liquid level below operating depth
- Examined empty (pumped) tanks(s)
- Probed outside tank(s) for "black soil"
- Unable to verify (See Comments/Explanation)
- Other methods not listed (See Comments/Explanation)

### 3. Other Compliance Conditions – Compliance component #3 of 5

a.	Maintenance hole covers	are damaged.	cracked, unsecured,	or appear to structurally	unsound.	□ Yes*	🛛 No	Unknov
ч.		, alo aamagoa,	oraonoa, anoooaroa,	or appour to otraotarany	anooana.			

b. Other issues (electrical hazards, etc.) to immediately and adversely impact public health or safety. \*System is an imminent threat to public health and safety

Explain:

C.	System is non-protective of ground water for other conditions as determined by inspector	Yes*	🛛 No
	*System is failing to protect groundwater		

Explain:

Inspector initials/Date: 10/26/2016

### **4. Soil Separation** – Compliance component #4 of 5

Date of installation: 1998	Unknown	Verification method(s):
Shoreland/Wellhead protection/Food Beverage Lodging?	🛛 Yes 🗌 N	Soil observation does not expire. Previous soil observations by two independent parties are sufficient
Compliance criteria:		unless site conditions have been altered or local
For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food, beverage or lodging establishment: Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.	Yes IN	Io       requirements differ.         Io       Conducted soil observation(s) (Attach boring logs)         Image: Two previous verifications (Attach boring logs)         Image: Two previous verification (Secondaria)         Image: Two previous verification (Secondaria)
Non-performance systems built April 1, 1996, or later or for non-performance systems located in Shoreland or Wellhead Protection Areas or serving a food, beverage, or lodging establishment:	Yes 🗌 N	lo <i>Comments/Explanation:</i> Reviewed as-built records.
Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*		
"Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV	□ Yes □ N	Indicate depths of elevations
or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)		A. Bottom of distribution media Boring Log(s
Drainfield meets the designed vertical		B. Periodically saturated soil/bedrock
separation distance from periodically saturated soil or bedrock.		C. System separation
		D. Required compliance separation*
Any "no" answer above indicates th Failing to Protect Groundwater.	ie system i	
Operating Permit and Nitrogen BA	<b>∧P*</b> – Comp	liance component #5 of 5 🛛 🛛 Not applicable
s the system operated under an Operating Pern	nit?	Yes 🛛 No 🛛 If "yes", A below is required
s the system required to employ a Nitrogen BMI	₽? □	Yes 🛛 No 🛛 If "yes", B below is required
BMP=Best Management Practice(s) specific	ed in the syste	m aesign

	Operating Permit number: Have the Operating Permit requirements been met?	Yes No
b.	Is the required nitrogen BMP in place and properly functioning?	🗌 Yes 🗌 No

### Any "no" answer indicates Noncompliance.

**Upgrade Requirements** (*Minn. Stat.* § 115.55) *An imminent threat to public health and safety (ITPHS) must be upgraded, replaced, or its use discontinued within ten months of receipt of this notice or within a shorter period if required by local ordinance. If the system is failing to protect ground water, the system must be upgraded, replaced, or its use discontinued within the time required by local ordinance. If an existing system is not failing as defined in law, and has at least two feet of design soil separation, then the system need not be upgraded, replaced, or its use discontinued, notwithstanding any local ordinance that is more strict. This provision does not apply to systems in shoreland areas, Wellhead Protection Areas, or those used in connection with food, beverage, and lodging establishments as defined in law.* 

### <u>Inspect Minnesota & Midwest Soil Testing</u>

### Subsurface Sewage Treatment System Owner/Property Information

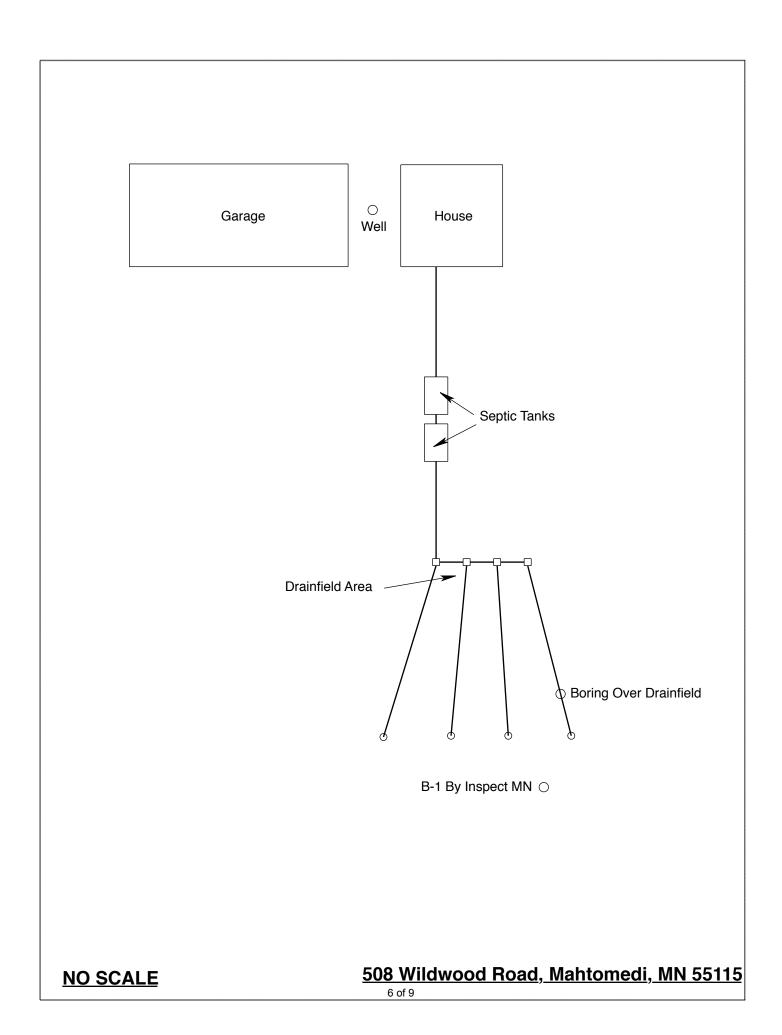
This information will be used for the purpose of conducting an MPCA Compliance Inspection.

Date of Inspection: October 26, 2016	Time: 3:00 PM					
Property Address: 508 Wildwood Road, Mahtom	edi, MN Zip: 55115					
Property Owner: Elizabeth Hafferman	Phone: 651-334-4364					
Tank(s)       Tank(s)Material       Soil Tr         Septic 2       Fiberglass       Roc         Aerobic       Plastic       SGrave         Lift       Metal       Char         Holding       Concrete       Seep         Other:       Block       Mon         Other       Are the tank maintenance covers accessible?       Y         performed through the maintenance holes.       Maintenance	eatment System       Other         k trench       □Alternative system         velless trench       □Experimental system         mber trench       □Cesspool system         oage bed       □Other system         ind          grade          es       ⊠ No       *If no, proper maintenance must be nance hole covers should be made accessible to					
the ground surface to facilitate access and proper n	-					
Year house built: 1926 Year septic installed						
How long has seller owned the property? 1993	Number of residents in home? 2-3					
	rs drained by gravity? Y					
	Vhirlpool bath? N					
More than one system (laundry, etc.)? N						
Does this property have any footing drain tiles connected to the septic system? N Are any buildings on this property such as garages or out-buildings connected to this system? N						
Are there any additional systems on this property serving other buildings? N						
Location of septic system on lot? South Side						
Location of water well on lot? West Side	Is the well a deep well? Y					
Have you ever experienced any problems with the						
surfacing of sewage onto the ground, septic tank overflowing, etc.; or have any repairs been made to the system? N If yes, explain:						
When was the system last pumped? 2015	Name of pumper: Pinky's Sewer Service					
How often pumped in previous years? Every 3 Is system on a monitoring plan? N						
Have you received notices from any government agency concerning this system? N						
Is your property located in a shoreland management area? N						
Do you have any additional information that should be given to the new owner? N						

I hereby certify that the above information is correct to the best of my knowledge. I also understand that if the system is considered "non-compliant/failing" per MPCA rules, that the inspector must by law submit a copy of this report to the local government unit within 15 days of the date of inspection completion. I also agree that unless otherwise noted in this report, that I/we are ultimately responsible for payment of all fees for all work performed relative to this inspection by Inspect Minnesota and Midwest Soil Testing.

Owner/Occupant: Elizabeth Hafferman's Signature On File

Date: 10/26/2016



### Log Of Soil Borings

Location of Project: 508 Wildwood Road, Mahtomedi, MN 55115									
Borings Made By: Inspect Minnesota				Date:	10/26/16				
		Hand/Bucket	Classi	fication System:	USDA				
Bo	pring Number:	1	Boring Number:						
Surface Elevation of Boring Same ground surface as last drainfield trench		Surface Elevation Boring							
Depth In Inches	<u>Soils E</u>	ncountered	Depth In Inches	Soils Encountered					
0-8 8-27 27-41 41-50 50-56	10YR 3 10YR 4/3 F 10YR 5/ 10YR 4/4 Sanc ≈15-20% Refu	oamy Fine Sand /3 Fine Sand ine Sand (Moist) /4 Clay Loam ly Loam With Gravel Rock Fragments sal At 56"							
56" De	pth To End Of B	oring Or Redox		Depth To End Of Boring Or Redox					
Same Ele	evation Of Borin	g Relative To System		Elevation Of Boring Relative To System					
-18"Depth To Bottom Of Distribution Media≥38"Of Separation			Depth To Bottom Of Distribution Media Of Separation						
En	d Of Boring At:	56"		End Of Boring At:					
	dox Present At:	None	Redox Present At:						
Standing Wa	ater Present At:	None	Standing Water Present At:						

Bottom Of Distribution Medium At: 18 Inches

### **DISCLAIMER**

### Brian L. Humpal, Inc. dba. Inspect Minnesota, Midwest Soil Testing

### Relative to Subsurface Sewage Treatment System (SSTS) Compliance Inspections

- 1. This inspection/report is being performed for only the seller/owner of the property on which the SSTS is located. In such case that another party is paying for the inspection, the contract is between only said party and Brian L. Humpal, Inc.; there is no contract between Brian L. Humpal, Inc. and any other party unless otherwise noted.
- 3. Brian L. Humpal, Inc. has not been retained to warranty, guarantee, or certify the proper functioning of the SSTS for any period of time beyond the date of inspection or into the future. Because of the numerous factors (usage, maintenance, soil characteristics, previous failures, etc.) which may affect the proper operation of an SSTS, as well as the inability of Brian L. Humpal, Inc. to supervise or monitor the use or maintenance of the SSTS, the report shall not be construed as a warranty by Brian L. Humpal, Inc. that the SSTS will function properly for any particular party for any period of time.
- 4. Brian L. Humpal, Inc. is unable to verify the frequency and/or, quality of prior or future maintenance of the SSTS. Maintenance of the tank(s) must be performed through the tanks maintenance hole. The removal of solids from any location other than the maintenance hole is not a compliant method of maintenance. It is strongly recommended that maintenance covers be made accessible to the ground surface to facilitate proper maintenance.
- 5. Minimum Compliance Inspection requirements relative to this inspection and this report include <u>only</u> verification that the SSTS has tank(s) (septic tanks, lift tanks, dosing tanks, stilling tanks, etc.) which are watertight below the designed operating depth, the required separation between the bottom of the subsurface soil distribution medium and seasonally saturated soils, no back-ups of sewage into the dwelling, no discharge of sewage/effluent to the ground surface or surface waters, and no imminent safety hazards. Brian L. Humpal, Inc. does not inspect plumbing or pumps prior to the first SSTS component as these are plumbing components. The performance of exterior pumps and associated components are not inspected as they are considered to be maintenance items. Additionally, no indications relative to compliance with electrical code requirements have been made. It is recommended that any other applicable plumbing, electrical, housing, etc. inspections be performed by a qualified inspection business. Sewage back-up verification is limited to observing the floor drain area and/or the information supplied by the last occupants of the building prior to inspection. Brian L. Humpal, Inc. cannot guarantee that the information given to them by the last occupants of the building prior to inspection relative to back-ups is accurate.
- 4. Certification of this SSTS does not warranty future use beyond the date of the inspection. Any SSTS, old or new, can become hydraulically overloaded or discharge sewage/effluent to the ground surface as a result of more people moving into the house than were previously occupying the house, improper maintenance, heavy usage, leaking plumbing fixtures, groundwater infiltration, tree roots, freezing conditions, surface drainage problems, poor initial design, poor construction practices, or unsuitable materials used in constructing the system; the system can also simply stop working because of its age. An SSTS that has been properly designed and installed, properly maintained, and used in the manner for which the system was designed can be expected to provide service for twenty to twenty-five years on average. Some parts of the SSTS such as alarms, switches, pumps, filters, etc. will most likely have to be repaired or replaced over the lifetime of the system.
- 5. A Compliance Inspection is not meant to be a test or inspection for longevity of the system; a Compliance Inspection is strictly for the purpose of determining if the SSTS is protective of public health and safety, as well as the groundwater at the date and time the inspection was performed. This inspection is not intended to determine if the SSTS was originally designed or installed to past or present MPCA or other Local Government Unit code requirements. This inspection is not intended to determine if the SSTS was designed and/or installed to support the anticipated flow from the building as the use of the building may have changed since the design and construction of the SSTS due to the addition of bedrooms, occupants, etc. In addition, this inspection is not intended to determine the quality of the original SSTS design, the quality of the construction practices used while installing the SSTS, or the quality of the materials used in constructing the SSTS.
- 6. Brian L. Humpal, Inc. cannot guarantee the performance of SSTS products/components such as: gravelless pipe, chamber trenches, effluent filters, tanks, sewage pre-treatment components, piping, etc. Products such as gravelless pipe are no longer approved for installation in the State of Minnesota and may have a significantly reduced performance and/or life expectancy.
- 7. WINTER WORK: By accepting this report, it is understood that inspections conducted during winter months (approximately November 1<sup>st</sup> through April 1<sup>st</sup>) are more difficult to perform because of possible snow cover and/or ground frost. SSTS components such as tanks, maintenance covers, tank inspection pipes, subsurface distribution medium inspection pipes, and soil treatment areas are more difficult or impossible to locate due to snow cover and/or ground frost. In addition, soil borings are more difficult to perform due to snow cover and/or ground frost. Brian L. Humpal, Inc. will attempt to use the same level of standards when performing work during winter periods as when performing work during non-winter periods. However, the recipient of this report understands that because of the aforementioned considerations, the same level of standards may not be possible.
- 8. By accepting this report, the client understands that Brian L. Humpal, Inc. will not be responsible for any monetary damages exceeding the fee for the services provided.

Subsurface Sewage Treatment Systems



Non-transferable

## License # L2896

Adv Inspector License Expires: Adv Designer License Expires: Maintainer License Expires: Installer License Expires: Date of Issuance:

### Oct 28, 2015 Dec 22, 2016 Dec 22, 2016 Dec 22, 2016 Dec 22, 2016

# **Inspect Minnesota, Midwest Soil Testing**

Certificatio Expires	10/15/2017	10/15/2017	10/15/2017	10/15/2017	10/15/2017	03/04/2018	03/04/2018
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# **Minnesota Pollution Control Agency**

520 Lafayette Road North St. Paul, Minnesota 55155-4194



Steven Giddings Manager Environmental Business Assistance Section