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

P.O. Box 10853 White Bear	Lake, MN 55110	Brian Humpal
		MPCA Licensed Advanced Inspector
SUBSURFACE SEWAGE T	REATMENT SYSTE	M (SSTS) COMPLIANCE REPORT
Date: February 5, 2018	<b>Time:</b> 1:30 PM	<b>Owner:</b> John Wheatley
Inspection Address: 8749 Lake	Jane Trl N, Lake Elmo	<b>Site Conditions:</b> 12" Snow 9" Frost

#### **REPORT SUMMARY**

I have performed an "MPCA Compliance Inspection" on this system and have reviewed the original design/permit records on file at the City of Lake Elmo. This older system (installed in 1995) consists of a pre-cast septic tank and a gravelless trench drainfield.

Predicated on my inspection of the system and my review of the original design/permit records, it is my opinion that this system presently meets 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

# **Compliance Inspection Form**

# Existing Subsurface Sewage Treatment Systems (SSTS)

Doc Type: Compliance and Enforcement

Instructions: Inspection results based on Minnesota Pollution Control Agency (MPCA)	
requirements and attached forms – additional local requirements may also apply.	

For local tracking purposes:

Submit completed form to Local Unit of Government (LUG) and system owner within 15 days

#### System Status

System status on date (mm/dd/yyyy): 2/5/2018

#### Compliant – Certificate of Compliance

(Valid for 3 years from report date, unless shorter time frame outlined in Local Ordinance.)

#### ] Noncompliant – Notice of Noncompliance

(See Upgrade Requirements on page 3)

#### Reason(s) for noncompliance (check all applicable)

Impact on Public Health (Compliance Component #1) – Imminent threat to public health and safety

Other Compliance Conditions (Compliance Component #3) – Imminent threat to public health and safety

Tank Integrity (Compliance Component #2) – Failing to protect groundwater

Other Compliance Conditions (Compliance Component #3) – Failing to protect groundwater

Soil Separation (Compliance Component #4) – Failing to protect groundwater

Operating permit/monitoring plan requirements (Compliance Component #5) – Noncompliant

#### **Property Information**

Parcel ID# or Sec/Twp/Range:

Property address:	8749 Lake Jane Trl N, Lake Elmo, MN 55042	Reason for inspection: Property Transfer
Property owner: J	ohn Wheatley	Owner's phone: 952-261-7901
or		
Owner's representat	live:	Representative phone:
Local regulatory aut	hority: Washington County	Regulatory authority phone: 651-430-4052
Brief system descrip	Brief system description: A pre-cast septic tank and gravelless trench drainfield.	
Commonto or rocom	mondations:	

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**

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#### 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.

#### 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)

#### 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 tank - baffles and tank walls OK.

#### 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	Unknown

b. Other issues (electrical hazards, etc.) to immediately and adversely impact public health or safety. ☐ Yes\* ⊠ No ☐ Unknown \*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:

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

Date of installation: 1995	Unknown	Verification method(s):			
Shoreland/Wellhead protection/Food Beverage Lodging?	🛛 Yes 🗌 No	Soil observation does not expire. Pre			
Compliance criteria:		observations by two independent parties are suffici 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 ☐ No	<ul> <li>requirements differ.</li> <li>Conducted soil observation(s) (Attach boring log)</li> <li>Two previous verifications (Attach boring logs)</li> <li>Not applicable (Holding tank(s), no drainfield)</li> <li>Unable to verify (See Comments/Explanation)</li> <li>Other (See Comments/Explanation)</li> </ul>	h boring logs) drainfield) Explanation)		
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 □ No	Comments/Explanation: Reviewed design and permit records	5.		
Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*					
"Experimental", "Other", or "Performance"	🗌 Yes 🔲 No	Indicate depths of elevations			
systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)		A. Bottom of distribution media	See Attached 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 t Failing to Protect Groundwater.	he system is	*May be reduced up to 15 percent if Ordinance.	allowed by Local		
Operating Permit and Nitrogen B	<b>Operating Permit and Nitrogen BMP*</b> – Compliance component #5 of 5 <b>Not applicable</b>				
Is the system operated under an Operating Per	mit? 🗌 Yes 🗵	No If "yes", A below is required			
Is the system required to employ a Nitrogen BM	IP? 🗌 Yes 🖂	No If "yes", B below is required			
BMP=Best Management Practice(s) specif	ied in the system desig	ŋn			
If the answer to both questions is "no",	this section does r	not need to be completed.			

 Compliance criteria

 a. Operating Permit number:

 Have the Operating Permit requirements been met?

 b. Is the required nitrogen BMP in place and properly functioning?

#### Any "no" answer indicates Noncompliance.

5.

**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.* 

# Inspect Minnesota & Midwest Soil Testing

Subsurface Sewage Treatment System Owner/Property Information

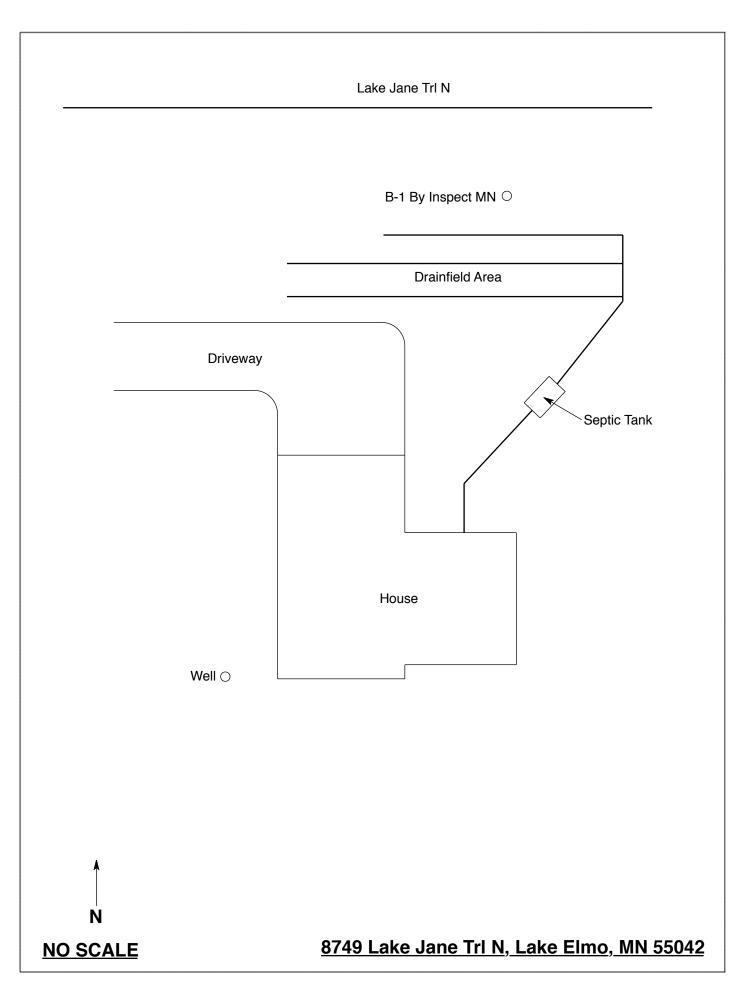
This information will be used for the purpose of conducting an MPCA Compliance Inspection.

Date of Inspection: February 5, 2018	Time: 1:30 PM			
Property Address, 9740 Lake Jane Tri N. Lake Elme, M.	NI 7:n: 55042			
Property Address: 8749 Lake Jane Trl N, Lake Elmo, M Property Owner: John Wheatley	IN Zip: 55042 Phone: 952-261-7901			
Tank(s)         Tank(s)Material         Soil Treatmen				
$\square I = I = I = I = I = I = I = I = I = I $				
Aerobic Plastic Gravelless				
Lift Metal Chamber tr Holding Concrete Seepage be				
Holding Concrete Seepage be	d Other system			
Other At-grade				
Are the tank maintenance covers accessible? $\Box$ Yes $\boxtimes$	No *If no, proper maintenance must be			
performed through the maintenance holes. Maintenance				
the ground surface to facilitate access and proper mainter				
Year house built: 1995 Year septic installed: 1995	5 Tank size (gals.): 1500			
	ber of residents in home?			
	ned by gravity? Y			
	ool bath?			
More than one system (laundry, etc.)?				
Does this property have any footing drain tiles connected	to the septic system?			
Are any buildings on this property such as garages or out	-buildings connected to this system?			
Are there any additional systems on this property serving	other buildings?			
Location of septic system on lot? North Side				
Location of water well on lot? West Side	Is the well a deep well? Y			
Have you ever experienced any problems with the system				
surfacing of sewage onto the ground, septic tank overflow	ving, etc.; or have any repairs been made			
to the system? If yes, explain:				
When was the system last pumped? 2016 Nam	a of numper: Pinlar's Sewer Service			
How often pumped in previous years?Is system on a monitoring plan?Have you received notices from any government agency concerning this system?				
Is your property located in a shoreland management area? Y				
Do you have any additional information that should be given to the new owner?				

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:

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#### Log Of Soil Borings

Location of Project: 8749 Lake Jane Trl N, Lake Elmo, MN 55042					
Borings Made By: Inspect Minnesota			Date:	2/5/18	
		Hand/Bucket	Classif	ication System:	USDA
Bo	pring Number:			Boring Number:	
Surface Elevation of Boring	Same grou	und surface as last nfield trench	Surface Elevation o Boring		
Depth In Inches	<u>Soils E</u>	ncountered	Depth In Inches	Soils Er	ncountered
	10YR 4 (R 4/4 Medium Co Wit ≈10% Ro 0YR 3/4 Fine Sa With A Ti	/2 Silt Loam /3 Silt Loam ourse Sand With Fine Sand th Gravel ock Fragments and With Medium Sand race Of Gravel /4 Fine Sand			
80" De	pth To End Of B	oring Or Redox	D	epth To End Of Bo	oring Or Redox
Same Ele	evation Of Boring	g Relative To System	E	levation Of Boring	Relative To System
	pth To Bottom ( Separation	Df Distribution Media		Pepth To Bottom C Of Separation	of Distribution Media
Er	d Of Boring At:	80"	E	End Of Boring At:	
	dox Present At:	None		Redox Present At:	
	ater Present At:			Water Present At:	

Bottom Of Distribution Medium At: 42 Inches

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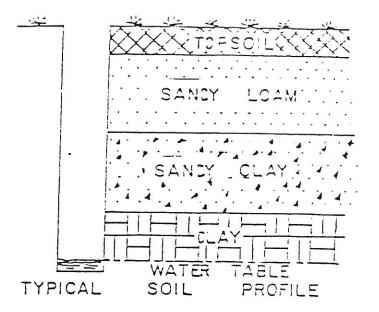
#### -SOIL EORINGS-

Soil borings are made in order to determine the type and structure of soils at various depths as well as the location of the water table, impervious strate or bedrock.

Borings are most easily made with a hand auger, however other expedients may be utilized - back hoe, bost hole auger, etc.

Solis encountered at various depths should be listed as to appearance, texture and composition.

Desch at which water, bedrock or heavy clay layer is encountered should be recorded.



#### LOG OF SOIL BORINGS

EORING NC. 1	EORING NC. 2	EORING NO. 3	BORING NO.
CEPTH SOIL IN DESCRIPTION	DEPTH SOIL IN DESCRIPTION	DEPTH SOIL IN DESCRIPTION	DEPTH SOLL
Dark Brown	0 Dark Sand 1/2 6inches	O Jark SandLoam 1/2 B inches	0
1.2 Sandy Loam	-   Silt Loam	    /2   Silt Loam	1 1 1/2
2 2.72 34 Inches	2 2 i/2 35 inches	2 2:/2 34 inches	2 1/2
Med to Fine <u> </u>	$\frac{3}{4}$ Fine Sand	3 31/2 2 Fine Sand	3
	41/2	41/2	4/2
5.72	51/2	51/2	51/21
÷.2 7 Bnd	61/2	<u>61/2</u> 7	<u> 8 1/2</u> 7
3	71/2 End.	71/2 ê	21/2 9
= 1	B / 2	E 1/2	8:/2

### **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.

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# Subsurface Sewage Treatment Systems Non-transferable Business License

# Inspect Minnesota, Midwest Soil Testing

License # L2896

License Expires: 12/22/2018

Issued: 10/10/2017

# Specialty Area(s):

Installer Maintainer Service Provider Advanced Designer Advanced Inspector

# **Designated Certified Individual(s):**

Cert #	Name	<b>Certification Expires:</b>
C9633	Anthony P Scully	7/28/2018
	Installer, Designer (Conditional	)
C5342	Brian L Humpal	10/15/2020
	Installer, Maintainer, Serv Prov	, Adv Designer, Adv Inspector
C9852	Christopher R Uebe	3/4/2018
	Designer, Inspector	

## MINNESOTA POLLUTION CONTROL AGENCY

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

Charles K Thompson, Supervisor Certification & Training Unit