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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 TREATMENT SYSTEM (SSTS) COMPLIANCE REPOR				
Date: March 25, 2019Time: 9:00 AMOwner: Matt Snelling				
Inspection Address: 3465 St Croix Trl S, Afton, MN 55001				

REPORT SUMMARY

I have performed an "MPCA Compliance Inspection" on this system, have reviewed the history of the system with the owner, Matt Snelling, and have reviewed the original design/permit records on file at the City of Afton. This older system (installed in 1996) consists of two pre-cast septic tanks, a pre-cast lift tank, and a seepage bed. The end of the seepage bed is exposed and is discharging effluent to the ground surface.

My inspection indicates that this system is an imminent threat to public health and safety per MPCA rule 7080.1500 Subp. 4(A) because of the discharge of effluent to the ground surface.

In accordance with MPCA rules, I am sending a copy of this complete report to Washington County. I cannot officially speak on behalf of the County relative to the upgrade requirements of these non-compliant systems. Please contact the Washington County Department of Public Health & Environment (651-430-6655) to <u>verify</u> the County's position.

Please advise buyer, agents, lender, etc. to contact me should they have any questions regarding this system.

Christopher Uebe

Brian Humpal

Brian Humpal

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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): _____3/25/2019

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: 3465 S	St Croix Trl S, Afton, MN 55001	Reason for inspec	tion: Property Transfer
Property owner: Matt Sne	elling	Owner's phone:	612-999-7763
or		_	
Owner's representative:		Representative ph	one:
Local regulatory authority:	Washington County	Regulatory authori	ity phone:651-430-6655
Brief system description:	Two pre-cast septic tanks, a pre-cast lift tank, ar	nd a seepage bed.	
	tioner		

Comments or recommendations:

The end of the seepage bed is exposed and is discharging effluent to the ground surface.

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/Christopher Uebe	Certification number:	C5342/C9852
Business name:	Inspect Minnesota, Midwest Soil Testing	License number:	L2896
Inspector signatur	e: Brian Humpal After Man	Phone number:	651-492-7550
Necessary or	Locally Required Attachments		
🛛 Soil boring lo	gs 🛛 System/As-built drawing] Forms per local ordinan	се
I Other information	ation (list): _ Report Summary, Property Information, D	isclaimer, License	

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

Compliance criteria:

System discharge sewage to the ground surface.	🛛 Yes 🗌 No
System discharge sewage to drain tile or surface waters.	🗌 Yes 🖾 No
System cause sewage backup into dwelling or establishment.	🗌 Yes 🖾 No

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

Comments/Explanation:

The end of the seepage bed is exposed and is discharging effluent to the ground surface.

2. Tank Integrity – Compliance component #2 of 5

Compliance criteria:		Verification method(s):
System consists of a seepage pit, cesspool, drywell, or leaching pit.	🗌 Yes 🛛 No	 Probed tank(s) bottom Examined construction records
Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.		Examined Tank Integrity Form (<i>Attach</i>)
Sewage tank(s) leak below their designed operating depth.	🗌 Yes 🖾 No	 Observed liquid level below operating depth Examined empty (pumped) tanks(s)
If yes, which sewage tank(s) leaks:		Probed outside tank(s) for "black soil"
Any "yes" answer above indic system is Failing to Protect G		 Unable to verify (See Comments/Explanation) Other methods not listed (See Comments/Explanation)

Comments/Explanation:

Lowered underwater camera into tanks - baffles and tank walls OK. Lift pump and alarm were operational at the time of the inspection.

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

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)

4. Soil Separation – Compliance component #4 of 5

Date of installation: 1996	Unknown	Verification method(s):		
Shoreland/Wellhead protection/Food Beverage Lodging?	🛛 Yes 🗌 No	Soil observation does not expire. Pro observations by two independent pa		
Compliance criteria:		unless site conditions have been alt		
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	 requirements differ. Conducted soil observation(s) (Attach boring logs) Two previous verifications (Attach boring logs) Not applicable (Holding tank(s), no drainfield) Unable to verify (See Comments/Explanation) Other (See Comments/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:		
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.	the system is	*May be reduced up to 15 percent if Ordinance.	allowed by Local	
Operating Permit and Nitrogen B	MP* – Compliance	component #5 of 5 🛛 🛛 Not appl	icable	
Is the system operated under an Operating Per	rmit? 🗌 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	fied in the system des	ign		

If the answer to both questions is "no", this section does not need to be completed.

Compliance criteria

5.

a.	Operating Permit number:	🗌 Yes 🗌 No
	Have the Operating Permit requirements been met?	
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.

Inspect Minnesota & Midwest Soil Testing

Subsurface Sewage Treatment System Owner/Property Information

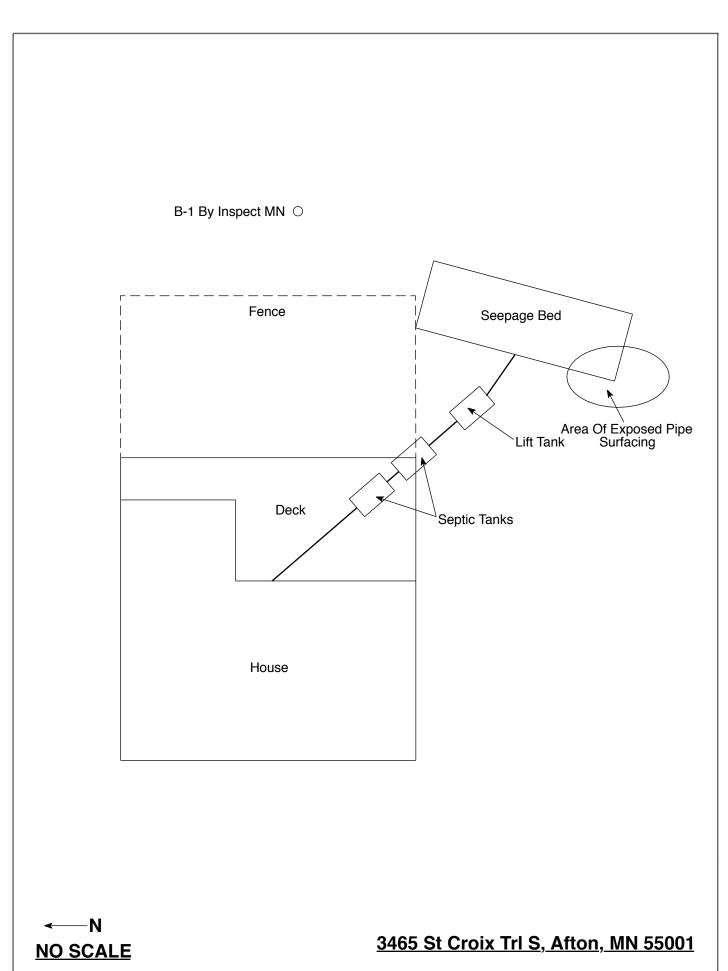
This information will be used for the purpose of conducting an MPCA Compliance Inspection.

Date of Inspection: March 25, 2019	Time: 9:00 AM			
Property Address: 3465 St Croix Trl S, Afton, MN	Zip: 55001			
Property Owner: Matt Snelling	Phone: 612-999-7763			
Tank(s) Tank(s)Material Soil Treatment				
$\boxed{\texttt{Septic 2}} \qquad \boxed{\texttt{Fiberglass}} \qquad \boxed{\texttt{Rock tren}}$				
Aerobic Plastic Gravelles				
Lift Metal Chamber				
Holding Concrete Seepage b Other: Block Mound	ed Other system			
Other At-grade				
Are the tank maintenance covers accessible? \Box Yes	7 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: 1996 Year septic installed: 199	le la			
	mber of residents in home? 4			
	ained by gravity? Y			
	pool bath? N			
More than one system (laundry, etc.)? N				
Does this property have any footing drain tiles connected	ed to the septic system? N			
Are any buildings on this property such as garages or or	at-buildings connected to this system? N			
Are there any additional systems on this property serving other buildings? N				
The more any additional systems on ans property serving other buildings: It				
Location of septic system on lot? Southeast Side				
Location of water well on lot? West Side	Is the well a deep well? Y			
Have you ever experienced any problems with the syste				
surfacing of sewage onto the ground, septic tank overflo				
to the system? N If yes, explain:				
When was the system last pumped? 2018 Na	me of pumper: Meyer Sewer Service			
How often pumped in previous years? Every 2	Is system on a monitoring plan? N			
Have you received notices from any government agency				
Is your property located in a shoreland management are				
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: Matt Snelling's Signature On File

Date: 3/25/2019



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Log Of Soil Borings

Location of Project: 3465 St Croix Trl S, Afton, MN 55001					
		Inspect Minnesota		Date:	3/25/19
		Hand/Bucket	Classif	fication System:	USDA
В	oring Number:	1		Boring Number:	
Surface Elevation of Boring	Same group	l surface as seepage bed	Surface Elevation c Boring		
Depth In Inches	<u>Soils E</u>	ncountered	Depth In Inches	Soils En	countered
0-25 25-60	≈20-30% 10YR 3/4 Mediu	um Sand With Gravel Rock Fragments um Sand With Gravel Rock Fragments			
60" De	epth To End Of B	oring Or Redox	C	Depth To End Of Bo	oring Or Redox
Same Ele	evation Of Borin	g Relative To System	E	Elevation Of Boring	Relative To System
	epth To Bottom (Separation	Of Distribution Media		Depth To Bottom O Df Separation	f Distribution Media
Er	nd Of Boring At:	60"		End Of Boring At:	
	dox Present At:	None		Redox Present At:	
	ater Present At:			Water Present At:	

Bottom Of Distribution Medium At: 27 Inches

Property address: 15991 Upper 34257.50.	Inspector initials/Date: 1220-/
4. Soil Separation – Compliance component #4 of 5	
Date of installation: 1996 Unknown Shoreland/Vellhead protection/Food Beverage MYes INo	Verification method(s): Soil observation does not expire. Previous soil observations by two independent parties are sufficient, 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	requirements differ. X Conducted soil observation(s) (Attach boring logs) Two previous verifications (Attach boring logs) Not applicable (Holding tank(s), no drainfield) Unable to verify (See Comments/Explanation)
separation distance from periodically saturated soil or bedrock.	Other (See Comments/Explanation)
Non-performance systems built April 1, 1996, or later or for non-performance systems located in Shoreland or Wellbead	Comments/Explanation: B1 O-9 LOAMTOPSOIL 104R3/3 9-17 SANDY LOAM 104RS14
Drainfield has a three-foot vertical separation distance from periodically. saturated soil or bedrock.*	9-17 SANDYLOAN JOYRS14 7-80 MEDSAND 7.542414
"Experimental", "Other", or "Performance" systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)	Indicate depths of elevations A. Bottom of distribution media 30-36" B. Periodically saturated soll/bedrock N/A
Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.	C. System separation 36" + D. Required compliance separation* 36''
Any "no" answer above indicates the system is Falling to Protect Groundwater.	*May be reduced up to 15 percent if allowed by Local Ordinance.
Operating Permit and Nitrogen BMP* – Compliance co Is the system operated under an Operating Permit? Is the system required to employ a Nitrogen BMP? BMP=Best Management Practice(s) specified in the system design	No If "yes", A below is required No If "yes", B below is required
If the answer to both questions is "no", this section does no	it need to be completed.
Compliance criteria	
a. Operating Permit number: Have the Operating Permit requirements been met?	TYes No
b. Is the required nitrogen BMP in place and properly functioning?	Yes DNo

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 failing to protect or to 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 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, Weilhead Protection Areas, or those used in connection with food, beverage, and lodging establishments as defined in law.

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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 1st through April 1st) 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 Business License

Inspect Minnesota, Midwest Soil Testing

License Expires: 12/22/2019

Issued: 11/20/2018

Specialty Area(s):

License # L2896

Installer Maintainer Service Provider Advanced Designer Advanced Inspector

Designated Certified Individual(s):

Cert #	Name	Certification Expires:
C9633	Anthony P Scully	3/5/2020
•	Installer, Designer (Apprentice)	
C5342	Brian L Humpal	10/15/2023
	Installer, Maintainer, Serv Prov, Adv D	esigner, Adv Inspector
C9852	Christopher R Uebe	3/4/2021
	Designer, Inspector	

MINNESOTA POLLUTION CONTROL AGENCY

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

Nich Haig

Nick Haig, Supervisor Certification and Training Unit