Inspect Minnesota & Midwest Soil Testing

P.O. Box 10853 White Bear Lake, MN 55110 651-492-7550/Brian@Midwestsoiltesting.com

Brian Humpal MPCA Licensed Advanced Inspector

SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT

REPORT SUMMARY

I have performed an "MPCA Compliance Inspection" on this system and have reviewed the original design/permit records, along with a previous compliance inspection from 2014, which were on file at Washington County. This system consists of two pre-cast septic tanks and a gravelless trench drainfield. This house is presently vacant.

Although not a compliance criteria, it should be noted that gravelless pipe is no longer approved for installation in the State of Minnesota and we have had experience with this product having significantly reduced performance and/or life expectancy. We cannot guarantee the performance of this system beyond the compliance date (2/11/2019).

It should be noted that the septic tank manhole covers are buried. I recommend extending these covers to the ground surface when the septic tanks are pumped to facilitate easier access and proper maintenance. Additionally, the septic tanks are currently due for maintenance pumping and should be pumped when possible in the spring of 2019.

Predicated on my inspection of the system 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.

Christopher Uebe

Brian Humpal

Brian Humpal



Compliance Inspection Form

Existing Subsurface Sewage Treatment Systems (SSTS)

	Doc Type: Compliance and Enforcement	
Instructions: Inspection results based on Minnesota Pollution Control Agency (MI requirements and attached forms – additional local requirements may also apply.	PCA) For local tracking purposes:	
Submit completed form to Local Unit of Government (LUG) and system own within 15 days	ner	
System Status		
System status on date (mm/dd/yyyy): 2/11/2019		
· · · · · · · · · · · · · · · · · · ·	ncompliant – Notice of Noncompliance e Upgrade Requirements on page 3)	
Reason(s) for noncompliance (check all applicable) Impact on Public Health (Compliance Component #1) – Imminent the Other Compliance Conditions (Compliance Component #3) – Immine Tank Integrity (Compliance Component #2) – Failing to protect groud Other Compliance Conditions (Compliance Component #3) – Failing Soil Separation (Compliance Component #4) – Failing to protect groud Operating permit/monitoring plan requirements (Compliance Component	ent threat to public health and safety ndwater to protect groundwater nundwater	
Property Information Parcel ID# or Sec/Twp	o/Range:	
Property address: 1434 Riviera Ave S, Lake St Croix Beach, MN 55043 Rea		
· · ·	ner's phone: 612-865-7780	
or		
Owner's representative: Rep	presentative phone:	
	Regulatory authority phone: 651-430-6655	
Brief system description: Two pre-cast septic tanks and gravelless trench dria	nfield.	
Comments or recommendations:		
Although not a compliance criteria, it should be noted that gravelless pipe is no lo Minnesota and we have had experience with this product having significantly red cannot guarantee the performance of this system beyond the compliance date (2	uced performance and/or life expectancy. We	
Certification		
I hereby certify that all the necessary information has been gathered to determine determination of future system performance has been nor can be made due to ut possible abuse of the system, inadequate maintenance, or future water usage.		
Inspector name: Brian Humpal/Christopher Uebe Cer	tification number: C5342/C9852	
Business name: _Inspect Minnesota, Midwest Soil Testing	License number: L2896	
Inspector signature: Brian Humpal for the	Phone number: 651-492-7550	
Nanagam, and applic Danished Attackers and		
Necessary or Locally Required Attachments		
	s per local ordinance	
	er, license	

www.pca.state.mn.us • 651-296-6300 • 800-657-3864 • TTY 651-282-5332 or 800-657-3864 • Available in alternative formats wq-wwists4-31 • 1/24/12 Page 1 of 3 Property address: 1434 Riviera Ave S, Lake St Croix Beach, MN 55043 Inspector initials/Date: 2/11/2019

<u>1.</u>	Impact on Public Health – Co	mpliance component	#1 of 5				
	Compliance criteria:		Verification method(s):				
	System discharge sewage to the ground surface.	☐ Yes ⊠ No	 Searched for surface outlet Searched for seeping in yard/backup in home 				
	System discharge sewage to drain tile or surface waters.	☐ Yes ⊠ No	 Excessive ponding in soil system/D-boxes Homeowner testimony (See Comments/Explanation) "Black soil" above soil dispersal system 				
	System cause sewage backup into dwelling or establishment.	☐ Yes ⊠ No	System requires "emergency" pumping Performed dye test				
	Any "yes" answer above indicate an Imminent Threat to Public Hea		☐ Unable to verify (See Comments/Explanation) ☐ Other methods not listed (See Comments/Explanation)				
2.		with this product havin is system beyond the co	elless pipe is no longer approved for installation in the State of g significantly reduced performance and/or life expectancy. We ompliance date (2/11/2019).				
		poo	Varification mathod(s):				
	Compliance criteria: System consists of a seepage pit, cesspool, drywell, or leaching pit.	☐ Yes ⊠ No	Verification method(s): ☑ Probed tank(s) bottom				
	Seepage pits meeting 7080.2550 may be compliant if allowed in local ordinance.		☑ Examined construction records☐ Examined Tank Integrity Form (Attach)				
	Sewage tank(s) leak below their designed operating depth.	☐ Yes ⊠ No	Observed liquid level below operating depthExamined 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 Gr		 ☐ Unable to verify (See Comments/Explanation) ☑ Other methods not listed (See Comments/Explanation) 				
	Comments/Explanation:						
3.	It should be noted that the septic tank manhole covers are buried. I recommend extending these covers to the ground surface when the septic tanks are pumped to facilitate easier access and proper maintenance. Additionally, the septic tanks are currently due for maintenance pumping and should be pumped when possible in the spring of 2019. 3. Other Compliance Conditions – Compliance component #3 of 5						
	a. Maintenance hole covers are damage	ed, cracked, unsecured, o	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:						

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Property address: 1434 Riviera Ave S, Lake St Croix Beach, MN 55043

Inspector initials/Date: 2/11/2019 BHCM

١.	Soil Separation – Compliance compor	nent #4 o	f 5				
	Date of installation: 1999	Unkn	own	٧	erification method(s):		
	Shoreland/Wellhead protection/Food Beverage Lodging?	⊠ Yes	☐ No		oil observation does not expire. Pr		
	Compliance criteria:	T		uı	bservations by two independent panless site conditions have been al		
	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 esturated soil or bodrock	☐ Yes	□ No		equirements differ. Conducted soil observation(s) (and the conducted soil observation (s) (and the conducted soil observation (s) (and the conducted soil observation (s)	ch boring logs) o 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	R	omments/Explanation: eviewed previous compliance inspectively eviewed design and permit record		
	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 or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)	☐ Yes	□ No		Bottom of distribution media	See Attached Boring Log(s)	
	Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.				Periodically saturated soil/bedrock System separation		
5.	Any "no" answer above indicates the system is Failing to Protect Groundwater. D. Required compliance separation* *May be reduced up to 15 percent if allowed by Local Ordinance. Operating Permit and Nitrogen BMP* – Compliance component #5 of 5 Not applicable						
	Is the system operated under an Operating Permit?						
	Is the system required to employ a Nitrogen BMP?						
If the answer to both questions is "no", this section does not need to be completed.							
	Compliance criteria						
	Operating Permit number: Have the Operating Permit requirements I	been met?)		☐ Yes ☐ No		
	b. Is the required nitrogen BMP in place and			?	☐ Yes ☐ No		
	Any "no" answer indicates Noncom	pliance.					

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, repaired, 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.

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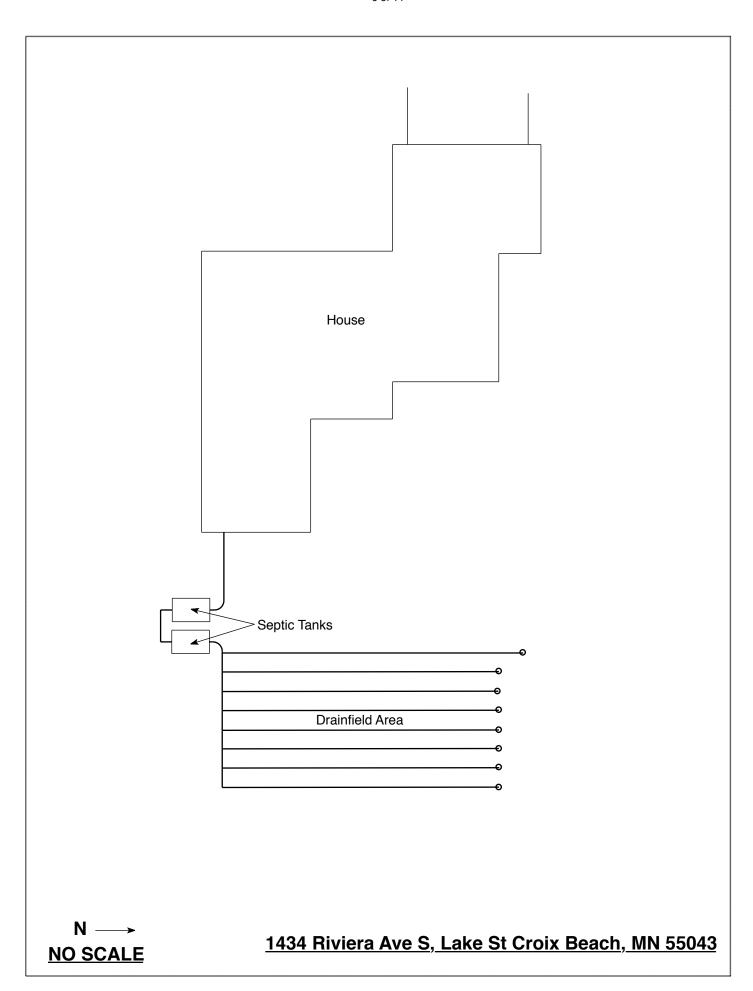
Inspect Minnesota & Midwest Soil Testing Subsurface Sewage Treatment System Owner/Property Information

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

	r			
Date of Inspection: February 11, 2019	Time: 11:15 AM			
Property Address: 1434 Riviera Ave S, LSCB, MN	Zip: 55043			
Property Owner: Bill Hippee	Phone: 612-865-7780			
Tank(s) Tank(s)Material Soil Treatment System Septic 2 Fiberglass Rock trench Aerobic Plastic Sgravelless trench Lift Metal Chamber trench Holding Concrete Seepage bed Other: Block Mound Other At-grade Are the tank maintenance covers accessible? Yes No *If	Other Alternative system Experimental system Cesspool system Other system no, proper maintenance must be			
performed through the maintenance holes. Maintenance hole cover				
the ground surface to facilitate access and proper maintenance of	the system.			
Year house built: 1999 Year septic installed: 1999	Tank size (gals.): 2-1000			
	sidents in home?			
Number of bedrooms? 4 Are all floors drained by g	ravity? Y			
Garbage disposal? Whirlpool bath?				
More than one system (laundry, etc.)?				
Does this property have any footing drain tiles connected to the se	eptic 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 bu	ildings?			
Location of septic system on lot? East Side				
	e well a deep well? N/A			
Have you ever experienced any problems with the system such as: tree roots, sewage back-ups, surfacing of sewage onto the ground, septic tank overflowing, etc.; or have any repairs been made to the system? If yes, explain:				
When was the system last pumped? 2013 Name of pum	per:			
How often pumped in previous years?				
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				

Owner/Occupant: Date:

by Inspect Minnesota and Midwest Soil Testing.





Compliance Inspection Attachment for Existing Individual Sewage Treatment Systems

Address

1434 Riviera Avenue

Boring	g #1 Elevation: Boring #2 Elevation:		Boring #3 Elevation:"	
0-40	10YR 3/2 dark brown loamy fine sand and topsoil. 10YR 4/3 yellowish brown loamy fine sand. Soils mixed and disturbed, possibly fill.			
-72	10YR 4/4, 5/4 yellowish brown sand/medium sand. No redoximorphic mottling observed, soil dry.			

Sketch:

Benchmark = operating level in second tank. Assumed elevation = 100.0′. Soil borings #1 indicated no signs of redoximorphic mottling at a depth of 36″ beneath the rockbed. The system does meet the required three-foot vertical separation from seasonally saturated soils. The system consists of two 1000-gallon septic tanks and and 355 feet of gravelless, gravity drainfield. Probe samples taken around the drainfield indicated dry conditions with no signs of ponding present. The tank was pumped in July of 2013 and required to be pumped once every three years. Buyer should be aware of the type of system installed at this property, gravelless pipe, is no longer an approved product for installation in Minnesota, and, this product has shown to have problems functioning hydraulically in the past, particularly in sandy soils. While no sign of past hydraulic problems were observed, it is also unclear how much water the previous homeowners were using, and therefore how much use the system has received. This inspection is not a warranty or guarantee, either written or implied, of future hydraulic performance, but rather an assessment of whether the systems use, at the time of this inspection, is causing any adverse harm to the environment, groundwater or public health and/or safety. Changes in use can cause any system, particularly older system, whether compliant or noncompliant, to become hydraulically overloaded and ultimately fail. Buyer assumes full responsibility of future hydraulic functionality and/or future replacement costs. Liability is limited to the cost of this inspection.

	Logs of Soil Borings.		Logs of Soil Borings.		
		31.		. B2	
	ound surface		Ground surface		
	TOPSOIL	Horizon: A. Depth: 14	7005612	Honzon: 7 Depth: 30	
	5/LT/ 5 AND	Soil Texture: Soil Color: 5 7/2 3/1	51274	Soil Texture: Soil Color: 10/12 4/2	
		Mollling: Yes No XClay films: Yes X No	5 AND	Mollling: Yes No Clay films: Yes No Soil Stucture:	
		Soil Stucture: Roots: Yes No _X Carbonales: Yes No &		Roots: Yes No Carbonates: Yes No	
	SILTY.	Horizon: B		Horizon: B	
1		Depth: 4/"		Depth: 66" Soil Texture:	
	••	Soil Texture: Soil Color: 104124/2	MEDIUM	Soil Color: 10412 4/4	
		Modiling: Yes No XClay films: Yes \(\section \) No _ Soil Stucture:	3-59~0	Mottling: Yes No XO2y films: Yes No X Soil Stucture:	
•		Roots: Yes No _> Carbonates: Yes No.	× ·	Roots: Yes No _ > Carbonates: Yes No >	
!	-MEDIUM!	Horizon:		Horizon:	
		Depth: 5.5 Soil Texture:		Depth: Soil Texture:	
		Soil Color: 10 12 4/4 Molling: Yes No 2 Clay films: Yes No.	×	Soil Color: No _ Clay films: Yes No	
· ;		,Soil Slucture: Roots: Yes No ≥ Carbonates: Yes No	<u>~</u> 5	Soil Stucture: Roots: Yes No Carbonates: Yes No	
	• •		*	Honzon:	
		Horizon: Depth:	6	Depth:	
,		Soil Texture: Soil Color:		Soil Texture: Soil Color: Modificative: Very No. Class Element Very No.	
1		Mottling: Yes No _ Clay films: Yes No Soil Stucture: Roots: Yes No Carbonates: Yes No	. ; -	Mollling: Yes No _ Clay films: Yes No Soil Stucture: Roots: Yes No Carbonates: Yes No	
		, , , , , , , , , , , , , , , , , , ,			
. :					
1			<u> </u>		
•	End of h	poring at 55 feet CAVEO@	48" End of h	poring at 5.5 feet. AVEX 55	
	Standin	g water table: NONE at feet of depth,	Standing	at feet of depth,	
•	- ho	urs after boring. sent in boring hole	ho	urs after boring. sent in boring hole	
	•	· · · · · · · · · · · · · · · · · · ·		Soil: NONE	
•		ed at feet of depth.	Observe	ed at feet of depth.	
I		crved in boring hole	Observa	erved in beging hole Itions and comments:	

Logs of Soil Borings.	Logs of Soil Borings.		
3.3	134		
ound surface	Ground surface		
Horizon: A Depth:	Honzon: A Depth: 10" Soil Texture: Soil Color: 10y/23/2 Mollling: Yes _ No _ Clay films: Yes _ No _ Soil Stucture: Roots: Yes _ No _ Carbonales: Yes _ No _		
Horizon: B Depth: 4/ Soil Texture: Soil Color: /0/12 4/2 Mottling: Yes No × Clay films: Yes No × Soil Stucture: No × Carbonates: Yes No ×	Horizon: B Depth: 28" Soil Texture: Soil Color: 10 12 4/2 Mottling: Yes _ No \(\times \) Carbonades: Yes _ No \(\times \) Soil Stucture: Roots: Yes _ No \(\times \) Carbonades: Yes _ No \(\times \)		
Horizon: C MEDIUM Soil Texture: Soil Color: 10715/2 Mottling: Yes No Clay films: Yes No X Rooks: Yes No X Carbonales: Yes No X	Horizon:		
Horizon: Depth: Soil Texture: Soil Color: Mottling: Yes No _ Clay films: Yes No _ Soil Stucture: Roots: Yes No Carbonates: Yes No	Horizon: Depth: Soil Texture: Soil Color: Mottling: Yes No _ Clay films: Yes No Soil Stucture: Roots: Yes No Carbonates: Yes No		
End of boring at 55 feet. AVEO 62 Standing water table: NONE Present at feet of depth, hours after boring. Not present in boring hole Mottled Soil: NONE Observed at feet of depth. Not observed in boring hole Observations and comments:	End of boring at 5.5 feet. AUEOQ47" Standing water table: NONE Present at feet of depth, hours after boring. Not present in boring hole Mottled Soil: NONE Observed at feet of depth. Not observed in boring hole Observations and comments:		

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 # L2896

License Expires: 12/22/2019

Issued: 11/20/2018

Specialty Area(s):

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)	, v .
C5342	Brian L Humpal	10/15/2023
	Installer, Maintainer, Serv Prov, Adv	Designer, Adv Inspector
C9852	Christopher R Uebe	3/4/2021
	Designer, Inspector	



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

Nick Haig, Supervisor Certification and Training Unit