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

P.O. Box 383 Hugo, MN 55038

Brian Humpal

651-492-7550/Brian@midwestsoiltesting.com

MPCA Licensed Advanced Inspector

### SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) COMPLIANCE REPORT

**Inspection Address:** 6105 Inwood Ct N, Grant, MN 55082

### REPORT SUMMARY

I have performed an "MPCA Compliance Inspection" on this system and have reviewed the history of the system with the owner, Dave Nicolai. I contacted Washington County and was advised that there are no records for this system. This very old system (installed in 1986) consists of a pre-cast septic tank, a pre-cast lift tank, and a mound.

Predicated on my inspection of the system and my review of the history of the system with the owner, 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



St. Paul, MN 55155-4194

### **Compliance Inspection Form**

### **Existing Subsurface Sewage Treatment Systems**(SSTS)

Doc Type: Compliance and Enforcement

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<b>Instructions:</b> 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):	
	npliant – Notice of Noncompliance rade Requirements on page 3)
Reason(s) for noncompliance (check all applicable)	
<ul> <li>☐ Impact on Public Health (Compliance Component #1) – Imminent threat the</li> <li>☐ Other Compliance Conditions (Compliance Component #3) – Imminent the</li> <li>☐ Tank Integrity (Compliance Component #2) – Failing to protect groundwa</li> <li>☐ Other Compliance Conditions (Compliance Component #3) – Failing to protect groundwa</li> <li>☐ Soil Separation (Compliance Component #4) – Failing to protect groundwa</li> <li>☐ Operating permit/monitoring plan requirements (Compliance Component</li> </ul>	reat to public health and safety ter otect groundwater rater
Property Information Parcel ID# or Sec/Twp/Ran	ge:
·	or inspection: Property Sale
· · ·	phone: 651-592-5590
or	
	ntative phone:
Local regulatory authority: Washington County Regulato Brief system description: Pre-cast septic tank, a pre-cast lift tank, and a mound.	ry authority phone: 651-430-4052
Comments or recommendations:	
201 System.	
Certification	
I hereby certify that all the necessary information has been gathered to determine the determination of future system performance has been nor can be made due to unknown possible abuse of the system, inadequate maintenance, or future water usage.	
Inspector name: Brian Humpal Certificat	ion number: L5342
	nse number: L2896
Inspector signature: Brian Humpal Pho	one number: 651-492-7550
Necessary or Locally Required Attachments	
· · · · · ·	local ordinance
☐ Other information (list): Report Summary, Property Information, Disclaimer, Lice	

1.	ln	<b>npact on Public Health</b> – Cor	mpliance compon	ent #1 of 5			
	C	ompliance criteria:		Verification method(s):			
		stem discharge sewage to the bund surface.	☐ Yes ⊠ No	<ul><li>☑ Searched for surface outlet</li><li>☑ Searched for seeping in yard/backup in home</li></ul>			
		rstem discharge sewage to drain tile surface waters.	☐ Yes ⊠ No	<ul> <li>☑ Excessive ponding in soil system/D-boxes</li> <li>☑ Homeowner testimony (See Comments/Explanation)</li> <li>☐ "Black soil" above soil dispersal system</li> </ul>			
		rstem cause sewage backup into relling or establishment.	☐ Yes ⊠ No	System requires "emergency" pumping Performed dye test			
	Any "yes" answer above indicates the system an Imminent Threat to Public Health and Safet		•	☐ Unable to verify (See Comments/Explanation) ☐ Other methods not listed (See Comments/Explanation)			
		omments/Explanation:					
	INC	one of the above found.					
2.	Ta	ank Integrity – Compliance con	nponent #2 of 5				
	Co	ompliance criteria:	T	Verification method(s):			
		estem consists of a seepage pit,	☐ Yes   No	□ Probed tank(s) bottom     □ Probed tank(s) bott			
		sspool, drywell, or leaching pit.		Examined construction records			
		epage pits meeting 7080.2550 may be mpliant if allowed in local ordinance.		<ul><li>Examined Tank Integrity Form (Attach)</li><li>Observed liquid level below operating depth</li></ul>			
		ewage tank(s) leak below their	☐ Yes ⊠ No	Examined empty (pumped) tanks(s)			
		signed operating depth.		☐ Probed outside tank(s) for "black soil"			
		yes, which sewage tank(s) leaks:	-44	☐ Unable to verify (See Comments/Explanation)			
	Any "yes" answer above indicates the system is Failing to Protect Groundwater.			☐ Other methods not listed (See Comments/Explanation)			
		omments/Explanation:					
		wered underwater camera into tank -					
	LIT	t pump and alarm were operational at	the time of the insp	ection.			
_	<b>^</b>						
3.	U	ther Compliance Conditions					
	a.	_		d, or appear to structurally unsound. ☐ Yes* ☒ No ☐ Unknown			
	b.	Other issues (electrical hazards, etc.) to i *System is an imminent threat to pu	-	ersely impact public health or safety.   Yes*   No  Unknown  ety			
		Explain:					
c. System is non-protective of ground water for other conditions as determined by inspector ☐ Yes* ☒ No							
	C.	*System is failing to protect ground		ns as determined by inspector □ Yes* ☑ No			
		Explain:					

Property address: 6105 Inwood Ct N, Grant, MN 55082

Inspector initials/Date: 7/13/2016

www.pca.state.mn.us • 651-296-6300 • 800-657-3864 • 3 of 979Y 651-282-5332 or 800-657-3864 • Available in alternative formats wq-wwists4-31 • 1/24/12 Page 2 of 3

4.	Soil Separation — Compliance compor	nent #4 c	of 5				
	Date of installation: 1986	Unkı	nown	V	erification method(s):		
	Shoreland/Wellhead protection/Food Beverage Lodging?	☐ Yes	⊠ No	So	oil observation does not expire. P		
	Compliance criteria:			ur	bservations by two independent p nless 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:	⊠ 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)		
	Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.						
	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	C	omments/Explanation:		
	Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*			_			
	"Experimental", "Other", or "Performance"	☐ Yes	□No	_ _In	dicate depths of elevations	1	
	systems built under pre-2008 Rules; Type IV or V systems built under 2008 Rules (7080. 2350 or 7080.2400 (Advanced Inspector License required)			<u>A.</u>	Bottom of distribution media	See Attached Boring Log(s)	
	Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.			<ul><li>B. Periodically saturated soil/bedr</li><li>C. System separation</li></ul>			
				D.	Required compliance separation*		
	Any "no" answer above indicates the system is Failing to Protect Groundwater.				*May be reduced up to 15 percent if allowed by Local Ordinance.		
5.	Operating Permit and Nitrogen B	<b>MP*</b> – (	Compliand	ce com	ponent #5 of 5 🔀 <b>Not app</b>	licable	
	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 BMP? ☐ Yes ☒ No ☐ If "yes", B below is required						
	BMP=Best Management Practice(s) specified in the system design						
If the answer to both questions is "no", this section does not need to be completed.  Compliance criteria							
	a. Operating Permit number:     Have the Operating Permit requirements been met?				☐ Yes ☐ No		
b. Is the required nitrogen BMP in place and properly functioning?							
	Any "no" answer indicates Noncom	pliance					

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.

Upgrade Requirements (Minn. Stat. § 115.55) An imminent threat to public health and safety (ITPHS) must be upgraded, replaced, or its use

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Inspector initials/Date: 7/13/2016

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

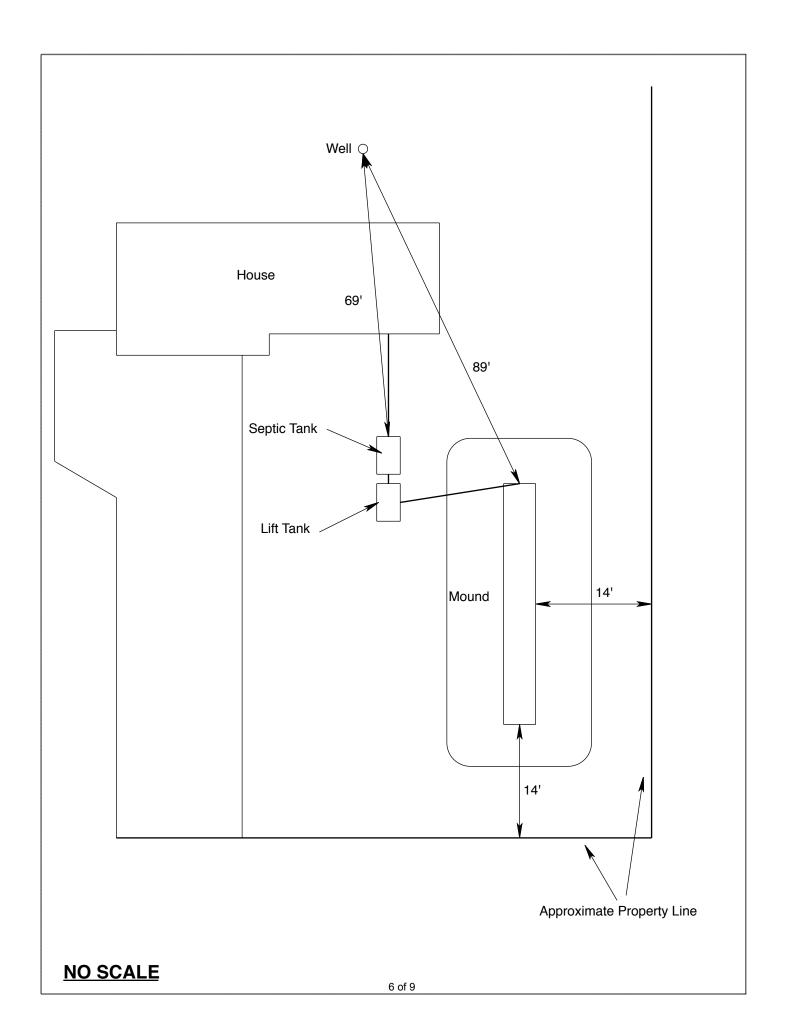
### Subsurface Sewage Treatment System Owner/Property Information

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

Date of Inspection: July 13, 2016	Time: 9:45 AM				
Property Address: 6105 Inwood Ct N, Grant, MN	Zip: 55082				
Property Owner: Dave & Louann Nicolai	Phone: 651-592-5590				
	Experimental system  Trench				
Are the tank maintenance covers accessible?   Yes No *If no, proper maintenance must be performed through the maintenance holes. Maintenance hole covers should be made accessible to the ground surface to facilitate access and proper maintenance of the system.					
Year house built: 1967 Year septic installed: 1	986 Tank size (gals.): 1200 Est				
	fumber of residents in home? 2-4				
	lrained by gravity? Lower Pumped				
Garbage disposal? N Whi	rlpool 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? West Side					
Location of water well on lot? East Side  Is the well a deep well? Y					
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? Y If yes, explain:2004, freezing issuses, no problems since. 2013, replaced lift pump.					
When was the system last pumped? 2012	ame of pumper: Pinky's Sewer Service				
How often pumped in previous years? Every 2-3  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: Dave Nicolai's Signature On File Date: 7/13/2016



### **Log Of Soil Borings**

Location of Project: 6105 Inwood Ct N, Grant, MN 55082					
Borings Made By: Inspect Minnesota			Date:		7/13/16
Auger Used: Hand/Bucket		Class	ification System:	USDA	
E	Boring Number:	1		Boring Number:	
Surface Elevation of Boring  46" below top of mound on original contour		Surface Elevation Boring			
Depth In Soils Encountered		Depth In Inches	Solis Focolini Areo		
0-13		2 Loamy Sand			
13-19	≈15% Ro 10YR 4/3 Loam ≈15% Ro And 7.5YR 8	ny Sand With Gravel ock Fragments ny Sand With Gravel ock Fragments & 10YR 6/2 Redox			
30-36	30-36 10YR 3/4 Sandy Loam With Gravel ≈15% Rock Fragments And 7.5YR 5/8 & 10YR 6/2				
19" Depth To End Of Boring Or Redox		Depth To End Of Boring Or Redox			
+46" Elevation Of Boring Below Top Of Mound			Elevation Of Boring	Relative To System	
		Of Distribution Media	Depth To Bottom Of Distribution Media		
=42" Of Separation			Of Separation		
5 - LOC B - 1 - AL 26"			End Of Daving Att		
	End Of Boring At:	36" 19"		End Of Boring At:	
		Redox Present At: Standing Water Present At:			
Standing V	vater Present At:	None	Standing	water Present At:	

Bottom Of Distribution Medium At: 23 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.

# Sulbsurface Sewage Treatment Systems

Non-transferable



License # L2896

Maintainer License Expires:

Adv Inspector License Expires:

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

Adv Designer License Expires:

Date of Issuance:

Installer License Expires:

### Certification

Inspect Minnesota, Midwest Soil Testing

Expires

10/15/2017 10/15/2017

Advanced Designer (Certified) Advanced Inspector (Certified)

Maintainer (Certified)

Certification Type

**Designated Certified** 

Individual (DCI) Brian L. Humpal Brian L. Humpal Brian L. Humpal Brian L. Humpal Brian L. Humpal

10/15/2017

10/15/2017

10/15/2017

Service Provider (Certified)

Installer (Certified)

Designer (Certified) Inspector (Certified)

Christopher R. Uebe Christopher R. Uebe

03/04/2018

03/04/2018

Steven Giddings Manager Environmental Business Assistance Section



## Minnesota Pollution Control Agency

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