## ZIERKE SOIL TESTING

Tara Ryan 22870 Imperial Ave N Forest Lake, MN 55025

9/10/2019

Dear Tara Ryan,

At your request, I have conducted a septic inspection to determine the compliance status of your system pursuant to Minnesota Rules Chapter 7080.1500.

The compliance test set out in 7080.1500 has three main inquiries: 1). Is the system functioning hydraulically (disposing of effluent in a manner that prevents it from coming in contact with people)? 2). Are the septic tanks water tight? 3). Does the system have sufficient vertical separation between the bottom of the septic system and restrictive layers (bedrock, standing water, seasonally wet layers, etc) to provide full treatment of effluent?

Based off of these criteria, your system is <u>compliant</u>. A certification of compliance is in effect for three years from the date it is issued. To be clear, this should not be construed as a guarantee of future system function – there are too many factors that influence the lifespan of a septic system for an inspector to predict or even guess how long a septic system will last. A copy of this report will be filed with your local unit of government for their records.

Sincerely,

Benjamin Zierke

MPCA Lic 119, Cert 9594

ADDRESS: 28587 Jeffrey Ave Chisago City, MN 55013

PHONE 651-249-1346

EMAIL benzierke@gmail.com



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

## **Compliance Inspection Form**

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

Doc Type: Compliance and Enforcement

|  | mpliance criteria:   |   | Verification method(s):   |  |  |  |  |
|--|--|---|---|--|--|--|--|
|  | tem discharges sewage to the   | ☐ Yes ⊠ No  | ⊠ Searched for surface outlet   |  |  |  |  |
|  | und surface.   |   | Searched for seeping in yard/backup in home   |  |  |  |  |
|  | tem discharges sewage to drain or surface waters.  | ☐ Yes ⊠ No  | <ul> <li>☐ Excessive ponding in soil system/D-boxes</li> <li>☐ Homeowner testimony (See Comments/Explanation)</li> </ul>  |  |  |  |  |
| Svs  | tem causes sewage backup into  | ☐ Yes ⊠ No  | "Black soil" above soil dispersal system  |  |  |  |  |
|  | elling or establishment.   |   | System requires "emergency" pumping   |  |  |  |  |
| An   | Any "yes" answer above indicates the system is an imminent threat to public  |   | ☐ Performed dye test ☐ Unable to verify (See Comments/Explanation)  |  |  |  |  |
| _  |  |   |   |  |  |  |  |
| nea  | alth and safety.   |   | Other methods not listed (See Comments/Explanation)   |  |  |  |  |
|  | nments/Explanation:  |   |   |  |  |  |  |
| Tar  | a did not report any issues with the   | system. No signs of po  | onding or leakage during site visit 9/6/2019.   |  |  |  |  |
|  |  |   |   |  |  |  |  |
|  |  |   |   |  |  |  |  |
|  |  |   |   |  |  |  |  |
|  |  |   |   |  |  |  |  |
| . Ia   | nk Integrity – Compliance  | component #2 of 5   |   |  |  |  |  |
| Co   | mpliance criteria:   | 1   | Verification method(s):   |  |  |  |  |
|  | tem consists of a seepage pit,   | ☐ Yes ☐ No  | Probed tank(s) bottom   |  |  |  |  |
|  | spool, drywell, or leaching pit.   |   | Examined construction records   |  |  |  |  |
|  | page pits meeting 7080.2550 may be pliant if allowed in local ordinance.   |   | Examined Tank Integrity Form (Attach)   |  |  |  |  |
| Sev  | vage tank(s) leak below their  | ☐ Yes ⊠ No  | Observed liquid level below operating depth   |  |  |  |  |
|  | igned operating depth.   |   | Examined empty (pumped) tanks(s)  |  |  |  |  |
|  | 1.1  |   | Probed outside tank(s) for "black soil"   |  |  |  |  |
| If ye  | es, which sewage tank(s) leaks:  |   | Unable to verify (See Comments/Evalanation)   |  |  |  |  |
| An   | y "yes" answer above indi  |   | Unable to verify (See Comments/Explanation)   |  |  |  |  |
| An   | y "yes" answer above indi<br>stem is failing to protect g  |   | ☐ Unable to verify (See Comments/Explanation) ☐ Other methods not listed (See Comments/Explanation)   |  |  |  |  |
| An<br>sy:  | y "yes" answer above indi<br>stem is failing to protect gr<br>mments/Explanation:  | roundwater.   | Other methods not listed (See Comments/Explanation)   |  |  |  |  |
| An<br>sy:  | y "yes" answer above indi<br>stem is failing to protect g  | roundwater.   | Other methods not listed (See Comments/Explanation)   |  |  |  |  |
| An<br>sy:  | y "yes" answer above indi<br>stem is failing to protect gr<br>mments/Explanation:  | roundwater.   | Other methods not listed (See Comments/Explanation)   |  |  |  |  |
| An<br>sy:  | y "yes" answer above indi<br>stem is failing to protect gr<br>mments/Explanation:  | roundwater.   | Other methods not listed (See Comments/Explanation)   |  |  |  |  |
| Ann sys  | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer   | oundwater. 9/6/2019. Tanks in go  | Other methods not listed (See Comments/Explanation) od condition, baffles in place.   |  |  |  |  |
| Ann sys  | y "yes" answer above indi<br>stem is failing to protect gr<br>mments/Explanation:  | oundwater. 9/6/2019. Tanks in go  | Other methods not listed (See Comments/Explanation) od condition, baffles in place.   |  |  |  |  |
| Ann sys  | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer   | 9/6/2019. Tanks in go   | Other methods not listed (See Comments/Explanation) od condition, baffles in place.   |  |  |  |  |
| An sys   | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama   | roundwater.  9/6/2019. Tanks in go  15 — Compliance com  aged, cracked, unsecure to immediately and adv                               | Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound.   Yes*  No  Unknownersely impact public health or safety.  |  |  |  |  |
| An sys   | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama Other issues (electrical hazards, etc.) *System is an imminent threat to          | roundwater.  9/6/2019. Tanks in go  15 — Compliance com  aged, cracked, unsecure to immediately and adv                               | Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound.   Yes*  No  Unknownersely impact public health or safety.  |  |  |  |  |
| An system of the | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama Other issues (electrical hazards, etc.)   | roundwater.  9/6/2019. Tanks in go  15 — Compliance com  aged, cracked, unsecure to immediately and adv                               | ☐ Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound. ☐ Yes* ☒ No ☐ Unknoersely impact public health or safety. ☐ Yes* ☒ No ☐ Unkno  |  |  |  |  |
| An sys   | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama Other issues (electrical hazards, etc.) *System is an imminent threat to Explain: | roundwater.  9/6/2019. Tanks in goods  15 — Compliance comaged, cracked, unsecured to immediately and advolute public health and safe | ☐ Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound. ☐ Yes* ☒ No ☐ Unknown ☐ Yes* ☒ No ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes |  |  |  |  |
| An sy: Con Pre   | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama Other issues (electrical hazards, etc.) *System is an imminent threat to Explain: | roundwater.  9/6/2019. Tanks in go  1S — Compliance com  aged, cracked, unsecure to immediately and adv  public health and safe       | ☐ Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound. ☐ Yes* ☒ No ☐ Unknown ☐ Yes* ☒ No ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes* ☒ Yes* ☐ Yes |  |  |  |  |
| An sy: Cor Pre   | y "yes" answer above indistem is failing to protect gramments/Explanation: sent for pumping by Olson's Sewer her Compliance Condition Maintenance hole covers are dama Other issues (electrical hazards, etc.) *System is an imminent threat to Explain: | roundwater.  9/6/2019. Tanks in go  1S — Compliance com  aged, cracked, unsecure to immediately and adv  public health and safe       | ☐ Other methods not listed (See Comments/Explanation)  od condition, baffles in place.  ponent #3 of 5  d, or appear to be structurally unsound. ☐ Yes* ☒ No ☐ Unknown ☐ Yes* ☒ No ☐ Yes* ☒ Yes* ☐ |  |  |  |  |

Property address: 22870 Imperial Ave N Forest Lake, MN 55025

Inspector initials/Date: BZ | 9/10/2019

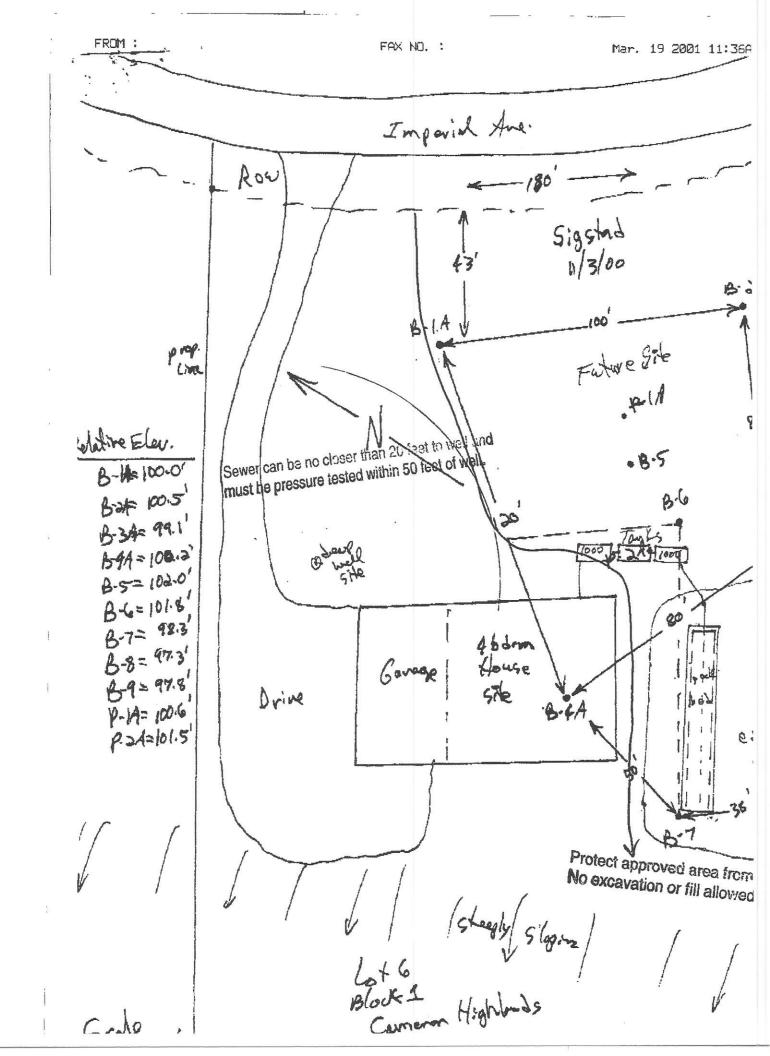
(mm/dd/yyyy)

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| Property address: 22870 Imperial Ave N Forest Lake, MN 55025   |  |                             |   |   | Inspector initials/Date: BZ   9/10/2019   |  |  |
|--|--|-----------------------------|---|---|---|--|--|
|  |  |                             |   |   |   | (mm/dd/yyyy)   |  |
| 4 Soil Congration  | Compliance   | mnono                       | nt #4 of E  |   |   |  |  |
| 4. Soil Separation   |  |                             |   |   |   |  |  |
| Date of installation:  | 2001   | ☐ Unkr                      | nown  | Verific   | cation method(s):   |  |  |
| (mm/dd/yyyy) Shoreland/Wellhead protection/Food beverage lodging?  |  | ☐ Yes                       | ⊠ No  | Soil observation does not expire. Previous soil observations by two independent parties are sufficien unless site conditions have been altered or local |   | rties are sufficient,                                    |  |
| Compliance criteria:   |  |                             |   | requirements differ.  |   |  |  |
| For systems built prior to April 1, 1996, and not located in Shoreland or Wellhead Protection Area or not serving a food,  |  | ☐ Yes ☐ No                  |   | Conducted soil observation(s) (Attach boring logs)  |   |  |  |
|  |  |                             | ☐ Two previous verifications (Attach boring logs) |   |   |  |  |
| beverage or lodging esta   |  |                             |   | ☐ Not applicable (Holding tank(s), no drainfield)   |   |  |  |
| Drainfield has at least a t  | wo-foot vertical   |                             |   | ☐ Unable to verify (See Comments/Explanation)   |   |  |  |
| separation distance from<br>saturated soil or bedrock  |  |                             |   | ☐ Other (See Comments/Explanation)  |   |  |  |
| Non-performance systems built April 1,<br>1996, or later or for non-performance<br>systems located in Shoreland or Wellhead<br>Protection Areas or serving a food,<br>beverage, or lodging establishment:  |  | ⊠ Yes □ No                  |   | Comments/Explanation:   |   |  |  |
|  | rainfield has a three-foot vertical eparation distance from periodically |                             |   |   |   |  |  |
| "Experimental", "Other", o   |  | ☐ Yes                       | ☐ No  | Indicate depths or elevations   |   |  |  |
| systems built under pre-2<br>or V systems built under<br>2350 or 7080.2400 (Adv  |  | A. Bott                     | tom of distribution media                         | 101.5'  |   |  |  |
| License required)  | 7.7  | _                           |   | B. Per  | iodically saturated soil/bedrock  | 98.5'  |  |
| Drainfield meets the desi<br>separation distance from  | periodically   |                             |   | C. Sys  | tem separation  | 3.0'   |  |
| saturated soil or bedrock  |  |                             |   | D. Red  | quired compliance separation*   | 3.0'   |  |
| Any "no" answer a failing to protect gr 5. Operating Perm  | roundwater.  |                             |   | Ordin   |   | allowed by Local   |  |
| Is the system operate  | d under an Operating   | Permit?                     | □Yes  | П No  | If "yes", A below is requi  | red  |  |
| Is the system required   |  |                             |   | □No   | STEPHEN BY SERVEY W. E.   |  |  |
| ATT AT SHARE SHE HOUSE SHE   |  |                             |   |   | ii yes , b below is requir  | ieu i  |  |
| BMP = Best Man   | agement Practice(s)  | specified                   | in the system                                     | aesign  |   |  |  |
| If the answer to bo  | oth questions is "i  | o", this                    | section do  | es not n  | need to be completed.   |  |  |
| Compliance criteri   | a  |                             |   |   |   |  |  |
| <ul> <li>a. Operating Perm</li> </ul>  | it number:   |                             |   |   | ☐ Yes ☐ No  |  |  |
| Have the Opera   | ting Permit requireme  | ents been                   | met?  |   |   |  |  |
| TO SECURITION OF THE PERSON OF | itrogen BMP in place   |                             |   | ng?   | Yes No  |  |  |
| Any "no" answe   | r indicates Nond   | omplia                      | nce.  |   |   |  |  |
| discontinued within ten r<br>ground water, the syster  | nonths of receipt of this<br>n must be upgraded, re                      | notice or v<br>placed, or l | vithin a shorter p<br>its use discontin           | period if re<br>lued within   | h and safety (ITPHS) must be upg<br>equired by local ordinance. If the s<br>n the time required by local ordina | system is failing to protect ance. If an existing system |  |

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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.



## LOGS OF SOIL BORINGS

Location of Project Sigstad prop., Lot 6, Block 1, Cameron Highlands, Sec. 10, Forest Lake Twp., Wash. Co.

Borings Made by Chris Zierke

Date: 11/3/00

Hand bucket auger used for borings; USDA - SCS Soil Classification used.

| Depth,<br>In<br>Feet | Boring Number 46  |  |  |
|----------------------|---|--|--|
| 0-6"                 | Dark-brown sandy loam(10YR-3/3)   |  |  |
| 6-12"                | Dark yeliowish-brown loam(10YR-4/4)   |  |  |
| 12-30"               | Dark yellowish-brown clay loam(10YR -4/6), iron-stains & light-gray mottles below 20" |  |  |

End of boring at 2.5 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 20° feet of depth.

Mottled soil not present in bore hole .

Comments:

| Depth,<br>In<br>Feet | Boring Number   |  |  |
|----------------------|---|--|--|
| 0-8"                 | Dark-brown sandy loam(3/3)                                |  |  |
| 8-20 <sup>4</sup>    | Dark y-brown loam(4/4)                                    |  |  |
| 20-30"               | Dark y-brown clay loam(4/6), iron-st., light-gray mottles |  |  |

End of boring at 2.5 feet.

Standing water table:

Present at feet of depth hours after boring.

Standing water not present to hole .

Mottled Soll:

Observed at 20° feet of depth.

Mottled soil not present in bone hole .

Comments:

| Depth,<br>In<br>Feet | Boring Number € 7   |
|----------------------|---|
| 0-10"                | Dark-brown sandy loam(3/3)                                |
| 10-20"               | Dark y-brown Ioam(4/4)                                    |
| 20-30*               | Dark y-brown clay loam(4/6), iron-st., light-gray mottles |
|                      |   |

End of boring at 2.5 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 20" feet of depth.

Mottled soil not present in bore hole .

Comments:

| Depth,<br>In<br>Feet | Boring Number 7   |  |  |
|----------------------|---|--|--|
| 0-8"                 | Dark-brown sandy loam(3/3)                                |  |  |
| 8-1 <b>8</b> "       | Dark y-brown loam(4/4)                                    |  |  |
| 18-24"               | Dark y-brown clay loam(4/6), iron-st., light-gray mottles |  |  |
|                      |   |  |  |
|                      | 5.  |  |  |

End of boring at 2 feet.

Standing water table:

Present at feet of depth, hours after boring.

Standing water not present in hole .

Mottled Soil:

Observed at 1.5 feet of depth.

Mottled soil not present in bore hole .

Comments:

## **Log Of Soil Borings**

| Location of Project: 22870 Imperial Ave N, Forest Lake, MN 55025 |  |  |                                    |                                 |                   |  |
|--|--|--|------------------------------------|---------------------------------|-------------------|--|
| Bor  | Borings Made By: Inspect Minnesota                             |  |                                    | Date:                           | 3/29/11           |  |
| Auger Used: Hand/Bucket  |  | Classification System:   |                                    | USDA                            |                   |  |
| Boring Number: 1   |  | Boring Number:   |                                    |                                 |                   |  |
| Surface  |  | Surface<br>Elevation<br>Boring   | of                                 |                                 |                   |  |
| Depth In<br>Inches   | Soils E  | ncountered   | Depth In<br>Inches                 | Soils Er                        | Soils Encountered |  |
| 19-27  | 7.5YR 4/4<br>7.5YR 2.5/3 Silt L<br>10YR 4/<br>7.5YR 4/4 Clay I | lt Loam (Mound Fill) (Mound Sand) Loam (Original Topsoil) (4 Clay Loam Loam With Silt Loams & 10YR 6/2 Redox |                                    |                                 |                   |  |
| 27" D  | 27" Depth To End Of Boring Or Redox                            |  |                                    | Depth To End Of Boring Or Redox |                   |  |
| +38" Elevation Of Boring Below Top Of Mound                      |  | Elevation Of Boring Relative To System   |                                    | g Relative To System            |                   |  |
| -28" Depth To Bottom Of System<br>=37" Of Separation             |  |  | Depth To Bottom C<br>Of Separation | Of System                       |                   |  |
| F  | nd Of Boring At:   | 42"  |                                    | End Of Boring At:               |                   |  |
| Redox Present At: 27"  |  |  | Redox Present At:                  |                                 |                   |  |
| Standing Water Present At: None                                  |  |  | Standing                           | Water Present At:               |                   |  |

| Present At: | None                    | Standing | Water Pre |
|-------------|-------------------------|----------|-----------|
| Bottom Of I | Distribution Medium At: | 28       | Inches    |