



310028000-2021



Becker County Planning & Zoning
915 Lake Ave
Detroit Lakes, MN 56501
(218) 846-7314
www.co.becker.mn.us

Certificate of Compliance Inspection Report - Permit #: SS2021-1041

Owner & Property Information

Owner Name:	CHAD KARVONEN	Site Address:	49413 CO HWY 36
Mailing Address:	CHAD KARVONEN 49413 CO HWY 36 MENAHA MN 56464	Township - Sec/Twp/Rng:	SPRUCE GROVE - 04/138/037
Parcel #:	310028000	Legal Description:	BEG AT NW COR TH E TO CTR RD, E 30' TO POB; S 415', W 525', N 415' & E TO BEG
Secondary Parcel #:		Designer:	Robert Keranen Jr, L2704 (Robert Keranen Jr)
		Installer:	Robert Keranen Jr, L2704 (Robert Keranen Jr)

Inspector Verified Specifications

Insp- Effluent Screen Installed:	No	Insp- Tank Nbr/Size:	1/500
Insp- Alarm Required:	Yes	Insp- Drainfield Type:	Pressure Bed
Insp- Lift Pump in System:	Yes	Insp- Drainfield Size:	15' X 39' = 585 square feet
Insp- Number of Bedrooms:	3	Insp- Soil Verification:	#1:attached #2:N/A #3:N/A

Inspector Verified Setbacks

Insp- Tank Dist to Road	200+	Insp- Drainfield Dist to Road	200+
Insp- Tank Dist to Nearest Prop Line	100+	Insp- Drainfield Dist to Nearest Prop Line	100+
Insp- Tank Dist to Nearest Structure	25	Insp- Drainfield Dist to Nearest Structure	40
Insp- Tank Dist to Well	100+	Insp- Drainfield Dist to Well	125+
Insp- Tank Dist to OHW		Insp- Drainfield Dist to OHW	
Insp- Tank Dist to Pond/Wetland		Insp- Drainfield Dist to Pond/Wetland	
Insp- Tank Dist to Pressure Line		Insp- Drainfield Dist to Pressure Line	

Certificate of Compliance

(Yes) Certificate is hereby granted based upon the application, addendum from, plans, specifications and all other supporting data. With proper maintenance, this system can be expected to function satisfactory, however this is not a guarantee.

Certification Date: 7/22/2021

Zoning Office Signature:

Denise Gubrud

Denise Gubrud - ISTS Inspector

* Certificate of Compliance is not valid unless signed by a Registered Qualified Employee *

Field Review Form

Permit # SS2021-1041

Property and Owner

Owner: CHAD KARVONEN

Parcel Number: 310028000

Site Address: 49413 CO HWY 36

Secondary Parcel:

Home Information

Does the structure contain any of the following elements?

Designer submitted

Inspector verified

Garbage disposal: No
Dishwasher: Invalid Field
Grinder pump: Invalid Field
Lift pump in bsmt: Invalid Field

Garbage disposal? Y N
Dishwasher? Y N
Grinder pump? Y N
Lift pump in basement? Y N

Number of bedrooms: 3

Review - Number of bedrooms: 3

Effluent screen

Effluent screen installed? Y N Mfr:

Alarm: Yes Type: electric

Review - Alarm? Y N Type & Mfr: PS Patrol

Lift pump in system: Yes

Review - Lift pump in system? Y N Mfr: Goulds PE41

Component Information

Existing 1000 septic tank

Tank size: 500

Review - Tank nbr: 1 size: 500 Mfr: Thelen

Drainfield type: Pressure Bed

Review - Drainfield type: pressure bed

Drainfield size: Full size - 577.5
Reduced/warr. size -

Review - Drainfield status: none / (installed) / next spring
Review - Drainfield size: 15' x 39'

Absorption area size: 9"

Review - Absorption area size: 585 sq ft

Chamber type/num:
Trench sqft/chamber -

Review - Chamber type: Num:
Review - Trench sqft/chamber:

Drainfield rock depth: 9"

Review - Rock depth: 9"

Soil Verification

Vertical separation verified

Boring #1:
Boring #2: attached
Boring #3:

Setback Verification

Distance to...	Designer submitted		Inspector verified	
	Tank	Drainfield	Tank	Drainfield
Road	200+	200+	200+	200+
Nearest prop line	100+	100+	100+	100+
Nearest structure	25	40	25	40
Well	100	125	100	125+
OHW				
Pond/Wetland				
Pressure line				

Date System Installed: 7/22/2021 Installer: Robert Karvonen

Inspector: Denise Gabriel

SKETCH OF PROPERTY

Please sketch all structures and septic systems on the property;
Include setbacks and wells within 100 feet of the property.

PARCEL	
APP	SEPTIC
YEAR	2018

Site Plan/Septic Sketch

A Detailed site plan/septic sketch must be submitted. Please include:

- Location of Structures
- Location of septic tank, drain field and well (if applicable)
- Setbacks from all property lines, roadways, lake/river/pond, and wells within 100 ft of the property

- House to tank 25' ✓
- House to drainfield 40' ✓
- Tank to well 100' ✓
- Tank to drainfield 125' ✓
- Prop. line to tank > 100' ✓
- Prop. line to drainfield > 100' ✓

Thelen 500 tank
goulds PE 41
PS Patrol

4 laterals

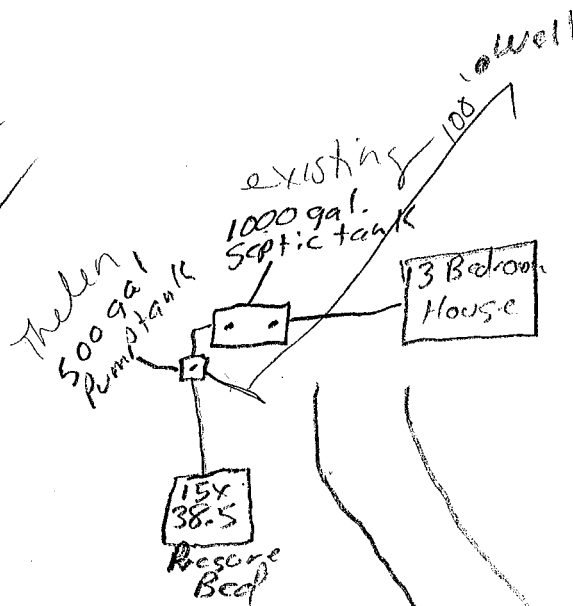
15' x 39' pressure bed

soils ok

set backs ok

certify 7-22-2021

Denise gabrud



Robert A. [Signature]

Becker County Restrictive Layer Verification

Client: Chad Karvonen	Parcel: 310028000	Date: 7-22-2011
Address: 49413 Co Hwy 36		
Vegetation: lawn		
Weather Conditions/Time of Day: Sunny 3:30	Observation#/Location/Method: Pit	
Depth (in)	Texture	Mottle Color(s)
50"	S	10yr 5/6 7.5yr 6/8
Comments/Notes:		
50" - Restrictive - some redox concentrations		
Certified Statement: I hereby certify that I have completed this work in accordance with all applicable ordinance, rules and laws.		
(Designer) Robert Karvonen	(Inspector) Denise Lybrand	(License #) C8452
		(Date) 7/22/2011

TRENCH AND BED WORKSHEET

1. AVERAGE DESIGN FLOW

A. Estimated 450 gpd (see figure A-1)
or measured 1.5 (safety) = gpd

B. Septic tank capacity 1000 gal (see figure C-1)

2. SOILS (Site evaluation data)

C. Depth to restrict. layer = 4 ft

D. Max depth of system

Item 2C - 3 ft = 4 ft - 3 ft = 1 ft

E. Texture Sand

Percolation rate MPI

F. Soil Sizing Factor (SSF) 1.27 sqft/gpd (see figure D-15)

G. % Land Slope 1 %

3. TRENCH or BED BOTTOM AREA

H. For trenches with 6 inches of rock

$$A \times F = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} = \text{ } \text{ sqft}$$

I. For trenches with 12 inches of rock

$$A \times F \times 0.8 = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} \times 0.8 = \text{ } \text{ sqft}$$

J. For trenches with 18 inches of rock

$$A \times F \times 0.66 = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} \times 0.66 = \text{ } \text{ sqft}$$

K. For trenches with 24 inches of rock

$$A \times F \times 0.6 = \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} \times 0.6 = \text{ } \text{ sqft}$$

L. For gravity beds with 6 or 12 inches of rock below the pipe;

$$1.5 \times A \times F = 1.5 \times \text{ } \text{ gpd} \times \text{ } \text{ sqft/gpd} = \text{ } \text{ sqft}$$

For pressure beds with 6 or 12 inches of rock below the pipe;

$$A \times F = 450 \text{ gpd} \times 1.27 \text{ sqft/gpd} = 571.5 \text{ sqft}$$

4. DISTRIBUTION (Check all that apply)

- Bed (< 6% slope) Drop boxes (any slope) Rock
 Trenches Distribution box (< 3%) Chamber
 Pressure Gravity Gravelless

5. SYSTEM WIDTH, LENGTH and VOLUME

M. Select trench width = ft

N. If using rock, divide bottom area by width:

$$(H, I, J, K \text{ or } L) \div M = \text{ } \text{ sqft} \div \text{ } \text{ ft} = \text{ } \text{ lineal feet}$$

Rock depth below distribution pipe plus 0.5 foot times bottom area:

Rock depth in feet + 0.5 feet x Area (H,I,J,K, or L)

$$(\text{ } \text{ ft} + 0.5 \text{ ft}) \times \text{ } \text{ sqft} = \text{ } \text{ cuft}$$

Volume in cubic yards = cuft \div 27

$$571.5 \times \text{ } \text{ cuft} \div 27 = 15.88 \text{ cu yds}$$

Weight of rock in tons = cubic yds x 1.4

$$15.88 \text{ cu yds} \times 1.4 = 22.23 \text{ tons}$$

O. If using 10" Gravelless Pipe,

Flow (A) x Gravelless SSF (see figure D-9)

$$\text{ } \text{ gpd} \times \text{ } \text{ lin.ft/gpd} = \text{ } \text{ ft}$$

P. If using Chambers,

H,I,J, or K (Chamber depth) \div width (M)

$$\text{ } \text{ sqft} \div \text{ } \text{ ft} = \text{ } \text{ ft}$$

6. LAWN AREA

Q. Select trench spacing, center to center = feet

R. Multiply trench spacing by lineal feet R x Q = sqft of lawn area

$$\text{ } \text{ ft} \times \text{ } \text{ ft} = \text{ } \text{ sqft}$$

A-1: Estimated Sewage Flows in Gallons per Day*

number of bedrooms	Class I	Class II	Class III	Class IV
2	300	225	180	60%
3	450	300	218	of the
4	600	375	256	values
5	750	450	294	in the
6	900	525	332	Class I.
7	1050	600	370	II, or III
8	1200	675	408	columns

C-1: Septic Tank Capacities (in gallons)

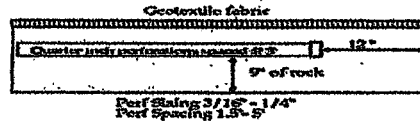
Number of Bedrooms	Minimum Liquid Capacity	Liquid capacity with garbage disposal	Liquid capacity with disposal lift inside
2 or less	750	1125	1500
3 or 4	1000	1500	2000
5 or 6	1500	2250	3000
7, 8 or 9	2000	3000	4000

Percolation rate (minutes per inch)	Soil Texture	Soil Sizing Factor
Faster than 0.1	Coarse sand	0.35
0.1 to 0.5	Medium sand	0.41
0.5 to 1.0	Fine sand	0.45
1.0 to 3.0	Sandy loam	1.27
3.0 to 4.5	Loam	2.00
4.5 to 6.0	Silt loam	2.29
6.0 to 12.0	Clay loam	2.70
12.0 to 18.0	Sandy clay	3.20
18.0 to 24.0	Clay	3.70
24.0 to 30.0	Silty clay	4.20
30.0 to 36.0	Clay	4.70
36.0 to 42.0	Silty clay	5.20
42.0 to 48.0	Clay	5.70
48.0 to 54.0	Silty clay	6.20
54.0 to 60.0	Clay	6.70
60.0 to 66.0	Silty clay	7.20
66.0 to 72.0	Clay	7.70
72.0 to 78.0	Silty clay	8.20
78.0 to 84.0	Clay	8.70
84.0 to 90.0	Silty clay	9.20
90.0 to 96.0	Clay	9.70
96.0 to 102.0	Silty clay	10.20
102.0 to 108.0	Clay	10.70
108.0 to 114.0	Silty clay	11.20
114.0 to 120.0	Clay	11.70
120.0 to 126.0	Silty clay	12.20
126.0 to 132.0	Clay	12.70
132.0 to 138.0	Silty clay	13.20
138.0 to 144.0	Clay	13.70
144.0 to 150.0	Silty clay	14.20
150.0 to 156.0	Clay	14.70
156.0 to 162.0	Silty clay	15.20
162.0 to 168.0	Clay	15.70
168.0 to 174.0	Silty clay	16.20
174.0 to 180.0	Clay	16.70
180.0 to 186.0	Silty clay	17.20
186.0 to 192.0	Clay	17.70
192.0 to 198.0	Silty clay	18.20
198.0 to 204.0	Clay	18.70
204.0 to 210.0	Silty clay	19.20
210.0 to 216.0	Clay	19.70
216.0 to 222.0	Silty clay	20.20
222.0 to 228.0	Clay	20.70
228.0 to 234.0	Silty clay	21.20
234.0 to 240.0	Clay	21.70
240.0 to 246.0	Silty clay	22.20
246.0 to 252.0	Clay	22.70
252.0 to 258.0	Silty clay	23.20
258.0 to 264.0	Clay	23.70
264.0 to 270.0	Silty clay	24.20
270.0 to 276.0	Clay	24.70
276.0 to 282.0	Silty clay	25.20
282.0 to 288.0	Clay	25.70
288.0 to 294.0	Silty clay	26.20
294.0 to 300.0	Clay	26.70
300.0 to 306.0	Silty clay	27.20
306.0 to 312.0	Clay	27.70
312.0 to 318.0	Silty clay	28.20
318.0 to 324.0	Clay	28.70
324.0 to 330.0	Silty clay	29.20
330.0 to 336.0	Clay	29.70
336.0 to 342.0	Silty clay	30.20
342.0 to 348.0	Clay	30.70
348.0 to 354.0	Silty clay	31.20
354.0 to 360.0	Clay	31.70
360.0 to 366.0	Silty clay	32.20
366.0 to 372.0	Clay	32.70
372.0 to 378.0	Silty clay	33.20
378.0 to 384.0	Clay	33.70
384.0 to 390.0	Silty clay	34.20
390.0 to 396.0	Clay	34.70
396.0 to 402.0	Silty clay	35.20
402.0 to 408.0	Clay	35.70
408.0 to 414.0	Silty clay	36.20
414.0 to 420.0	Clay	36.70
420.0 to 426.0	Silty clay	37.20
426.0 to 432.0	Clay	37.70
432.0 to 438.0	Silty clay	38.20
438.0 to 444.0	Clay	38.70
444.0 to 450.0	Silty clay	39.20
450.0 to 456.0	Clay	39.70
456.0 to 462.0	Silty clay	40.20
462.0 to 468.0	Clay	40.70
468.0 to 474.0	Silty clay	41.20
474.0 to 480.0	Clay	41.70
480.0 to 486.0	Silty clay	42.20
486.0 to 492.0	Clay	42.70
492.0 to 498.0	Silty clay	43.20
498.0 to 504.0	Clay	43.70
504.0 to 510.0	Silty clay	44.20
510.0 to 516.0	Clay	44.70
516.0 to 522.0	Silty clay	45.20
522.0 to 528.0	Clay	45.70
528.0 to 534.0	Silty clay	46.20
534.0 to 540.0	Clay	46.70
540.0 to 546.0	Silty clay	47.20
546.0 to 552.0	Clay	47.70
552.0 to 558.0	Silty clay	48.20
558.0 to 564.0	Clay	48.70
564.0 to 570.0	Silty clay	49.20
570.0 to 576.0	Clay	49.70
576.0 to 582.0	Silty clay	50.20
582.0 to 588.0	Clay	50.70
588.0 to 594.0	Silty clay	51.20
594.0 to 600.0	Clay	51.70
600.0 to 606.0	Silty clay	52.20
606.0 to 612.0	Clay	52.70
612.0 to 618.0	Silty clay	53.20
618.0 to 624.0	Clay	53.70
624.0 to 630.0	Silty clay	54.20
630.0 to 636.0	Clay	54.70
636.0 to 642.0	Silty clay	55.20
642.0 to 648.0	Clay	55.70
648.0 to 654.0	Silty clay	56.20
654.0 to 660.0	Clay	56.70
660.0 to 666.0	Silty clay	57.20
666.0 to 672.0	Clay	57.70
672.0 to 678.0	Silty clay	58.20
678.0 to 684.0	Clay	58.70
684.0 to 690.0	Silty clay	59.20
690.0 to 696.0	Clay	59.70
696.0 to 702.0	Silty clay	60.20
702.0 to 708.0	Clay	60.70
708.0 to 714.0	Silty clay	61.20
714.0 to 720.0	Clay	61.70
720.0 to 726.0	Silty clay	62.20
726.0 to 732.0	Clay	62.70
732.0 to 738.0	Silty clay	63.20
738.0 to 744.0	Clay	63.70
744.0 to 750.0	Silty clay	64.20
750.0 to 756.0	Clay	64.70
756.0 to 762.0	Silty clay	65.20
762.0 to 768.0	Clay	65.70
768.0 to 774.0	Silty clay	66.20
774.0 to 780.0	Clay	66.70
780.0 to 786.0	Silty clay	67.20
786.0 to 792.0	Clay	67.70
792.0 to 798.0	Silty clay	68.20
798.0 to 804.0	Clay	68.70
804.0 to 810.0	Silty clay	69.20
810.0 to 816.0	Clay	69.70
816.0 to 822.0	Silty clay	70.20
822.0 to 828.0	Clay	70.70
828.0 to 834.0	Silty clay	71.20
834.0 to 840.0	Clay	71.70
840.0 to 846.0	Silty clay	72.20
846.0 to 852.0	Clay	72.70
852.0 to 858.0	Silty clay	73.20
858.0 to 864.0	Clay	73.70
864.0 to 870.0	Silty clay	74.20
870.0 to 876.0	Clay	74.70
876.0 to 882.0	Silty clay	75.20
882.0 to 888.0	Clay	75.70
888.0 to 894.0	Silty clay	76.20
894.0 to 900.0	Clay	76.70
900.0 to 906.0	Silty clay	77.20
906.0 to 912.0	Clay	77.70
912.0 to 918.0	Silty clay	78.20
918.0 to 924.0	Clay	78.70
924.0 to 930.0	Silty clay	79.20
930.0 to 936.0	Clay	79.70
936.0 to 942.0	Silty clay	80.20
942.0 to 948.0	Clay	80.70
948.0 to 954.0	Silty clay	81.20
954.0 to 960.0	Clay	81.70
960.0 to 966.0	Silty clay	82.20
966.0 to 972.0	Clay	82.70
972.0 to 978.0	Silty clay	83.20
978.0 to 984.0	Clay	83.70
984.0 to 990.0	Silty clay	84.20
990.0 to 996.0	Clay	84.70
996.0 to 1002.0	Silty clay	85.20
1002.0 to 1008.0	Clay	85.70
1008.0 to 1014.0	Silty clay	86.20
1014.0 to 1020.0	Clay	86.70
1020.0 to 1026.0	Silty clay	87.20
1026.0 to 1032.0	Clay	87.70
1032.0 to 1038.0	Silty clay	88.20
1038.0 to 1044.0	Clay	88.70
1044.0 to 1050.0	Silty clay	89.20
1050.0 to 1056.0	Clay	89.70
1056.0 to 1062.0	Silty clay	90.20
1062.0 to 1068.0	Clay	90.70
1068.0 to 1074.0	Silty clay	91.20
1074.0 to 1080.0	Clay	91.70
1080.0 to 1086.0	Silty clay	92.20
1086.0 to 1092.0	Clay	92.70
1092.0 to 1098.0	Silty clay	93.20
1098.0 to 1104.0	Clay	93.70
1104.0 to 1110.0	Silty clay	94.20
1110.0 to 1116.0	Clay	94.70
1116.0 to 1122.0	Silty clay	

PRESSURE DISTRIBUTION SYSTEM

All boxed rectangles must be entered, the rest will be calculated.

- Select number of perforated laterals: 4
- Select perforation spacing = 22.5 ft
- Since perforations should not be placed closer than 1 foot to the edge of the rock layer (see diagram), subtract 2 feet from the rock layer length



38.5 - 2 ft = 36.5 ft

- Determine the number of spaces between perforations. Divide the length (3) by perforation spacing (2) and round down to nearest whole number. Perforation spacing = 36.5 ft / 2.5 ft = 14

- Number of perforations is equal to one plus the number of perforation spaces (4). * Check figure E-4 to assure the number of perforations per lateral guarantees < 10% discharge variation.

14 spaces + 1 = 15 perforations/lateral

Perforation Spacing	Perforation Spacing			
	feet	1 inch	1.25 inch	1.5 inch
2.5	8	14	18	28
3.0	8	13	17	26
3.3	7	12	16	25
4.0	7	11	15	23
5.0	6	10	14	22

Head (feet)	Perforations diameter (inches)		
	3/16	7/32	1/4
1 ^a	0.42	0.56	0.74
2 ^b	0.59	0.80	1.04
5	0.94	1.26	1.65

a. Use 1.0 foot for single-family homes.
b. Use 2.0 feet for anything else

- A. Total number of perforations = perforations per lateral (5) times number of laterals (1). 15 perfs/lat x 4 laterals = 60 perforations

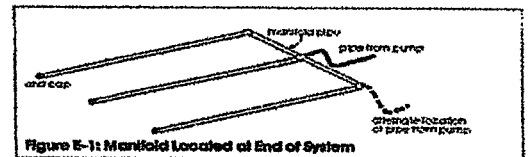
B. Calculate the square footage per perforation. Recommended value is 8-10 sqft/perf. Does not apply to at-grades.

1. Rock bed area = rock width (ft) x rock length (ft)
38.5 ft x 15 ft = 577.5 ft²

2. Square foot per perforation = Rock Bed Area / number of perfs (6)
577.5 ft² / 60 perfs = 9.625 ft²/perf

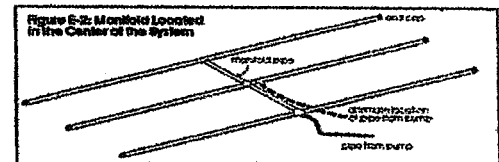
- Determine required flow rate by multiplying the total number of perforations (6A) by flow per perforations (see figure E-6)
60 perfs x .56 gpm / perfs = 33.6 gpm

- If laterals are connected to header pipe as shown in Figure E-1, to select minimum required lateral diameter, enter figure E-4 with perforation spacing (2) and number of perforations per lateral (5).



Select minimum diameter for perforated laterals = 1.5 inches

- If perforated lateral system is attached to manifold pipe near the center, like Figure E-2, perforated lateral length (3) and number of perforations per lateral (5) will be approximately one half of that in step 8. Using these values, select minimum diameter for perforated lateral = inches.



I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Robert W. Row (signature)

2704 (license #)

7/3/21 (date)

PUMP SELECTION PROCEDURE

All boxed rectangles must be entered, the rest will be calculated.

1. Determine pump capacity:

A. Gravity Distribution

1. Minimum required discharge is 10 gpm
2. Maximum suggested discharge is 45 gpm

For other establishments at least 10% greater than the water supply rate, but no faster than the rate at which effluent will flow out of the distribution device.

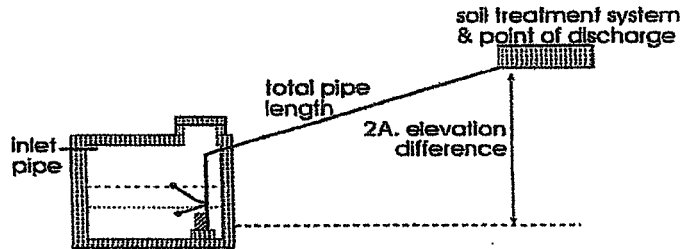
B. Pressure Distribution - see pressure design worksheet

Selected Pump Capacity: 33.6 gpm

2. Determine head requirements:

A. Elevation difference between pump and point of discharge.

10 feet



B. Special head requirement? (See Figure - Special Head Requirements)

5 feet

Special Head Requirements	
Gravity Distribution	0ft
Pressure Distribution	5ft

C. Friction loss

1. Select pipe diameter 1.5 in

2. Enter Figure E-9 with gpm (1A or B) and pipe diameter (C1)

Read friction loss in feet per 100 feet from Figure E-9

Friction loss = 6.96 ft/100 ft of pipe

3. Determine total pipe length from pump discharge to soil system discharge point.

Estimate by adding 25 percent to pipe length for fitting loss.

Equivalent pipe length times 1.25 = total pipe length

30 ft x 1.25 = 37.5 feet

4. Calculate total friction loss by multiplying friction loss (C2)

by the equivalent pipe length (C3) and divide by 100.

FL = $\frac{6.96 \text{ ft/100ft} \times 37.5 \text{ ft}}{100} = 2.61$ feet

D. Total head requirement is the sum of elevation difference (A), special head requirements (B), and total friction loss (C4).

10 ft + 5 ft + 2.61 ft

Total Head: 17.61 feet

E-9 Friction Loss in Plastic Pipe per 100 ft			
Flow Rate	nominal pipe diameter		
	1.5"	2.0"	3"
gpm	1.5"	2.0"	3"
20	2.47	0.73	0.11
25	3.73	1.11	0.16
30	5.23	1.55	0.23
35	6.96	2.06	0.3
40	8.91	2.64	0.39
45	11.07	3.28	0.48
50	13.46	3.99	0.58
55		4.76	0.7
60		5.6	0.82
65		6.48	0.95
70		7.44	1.09

3. Pump Selection

1. A pump must be selected to deliver at least 33.6 gpm (1A or B) with at least 17.61 feet of total head (2D).

I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

Robert W. Khan (signature)

2704

(license #)

7/3/21 (date)

PERCOLATION TEST DATA

* TWO TESTS ARE REQUIRED *

	PERC TEST #1	PERC TEST #2
Diameter of hole	8"	8"
Depth to bottom of hole	12"	12"
Did the hole require presoaking?	y = 5	y = 5

PERC TEST #1

Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
2:00 2:30	Start 30	8 5 1/2	2 1/4	30 / 2.5 = 12 time drop perc
2:40 3:10	Start 30	8 5 1/2	2 1/2	30 / 2.5 = 12 time drop perc
3:20 3:50	Start 30	8 5 5/8	2 3/8	30 / 2.375 = 12.63 time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc

PERC TEST #2

Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
2:15 2:45	Start 30	8 5 5/8	2 3/8	30 / 2.375 = 12.63 time drop perc
2:55 3:25	Start 30	8 5 5/8	2 3/8	30 / 2.375 = 12.63 time drop perc
3:35 4:05	Start 30	8 5 3/8	2 1/4	30 / 2.25 = 13.33 time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc
Time	Interval (minutes)	Water Depth	Water Drop	Perc Rate
Start	30			time drop perc

PERCOLATION RATE: 12.63 SSF: 1.27 PERCOLATION RATE: 13.33 SSF: 1.27

Anticipated construction related concerns: _____

Other information: _____

2019 Onsite Septic System Application

Becker County Planning & Zoning
915 Lake Ave, Detroit Lakes, MN 56501
Phone (218)-846-7314; Fax (218)-846-7266

PARCEL	
APP	SEPTIC
YEAR	
SCANNED	
LAKE	

1. PROPERTY DATA (as it appears on the tax statement or deed)

Parcel Number of property where the system will be installed: 310028000
If septic system is on more than one parcel, what is the number of the secondary parcel? _____

2. OWNER INFORMATION (as it appears on the tax statement or deed)

Owner Name: Chad Karvonen
Owner Mailing Address: 49413 Co. Hwy 36 City, State, Zip: Menahga, mn 56464
Owner Phone Number: (218) 255-3122 Owner Email Address: _____
Property Site Address: _____ City, State, Zip: _____
Township Name: _____ Section/Township/Range: 04 138 037
Legal Description: Beq at NW cor. th E to ctr. RD

3. DESIGNER/INSTALLER INFORMATION

Designer and License#: Robert Keranen 2704 Installer and License#: Same as Designer
Designer Email Address: rigidexcavatingllc@outlook.com Installer Email Address: _____
Address: 50201 150th St. Menahga Address: _____
Company: Rigid Excavating Company: _____
Phone Number: (218) 255-7360 Phone Number: _____

4. SYSTEM DESIGN INFORMATION

System Status

- Vacant Lot-No existing system-new structure
- Replacement - structure removed and being rebuilt
- Failing -Replacement- cesspool/seepage pit or other
- Enlargement of system-Undersized
- Repairs Needed to existing
- Additional system on property

What will new system serve? Check one.

- Dwelling Fee: \$225.00 ✕
- Resort/Commercial Fee: \$300.00
- Commercial (Non-resort) Fee: \$300.00
- Other - Explain: _____

Date of Site Evaluation: 7/3/21

Design Flow 450 Gallons Per Day
Number of Bedrooms 3
Garbage Disposal: Yes No
Dishwasher: Yes No
Lift station in Structure Yes No
Grinder Pump in Structure: Yes No

Well Depth: Deep Well
 Shallow Well
 Well not Installed-To be Drilled
Depth of Other Wells within 100 ft. of System: (if applicable):
 Deep Well
 Shallow Well
 Well not Installed-To be Drilled

Original Soil Compacted Soil
Type of Soil Observation:
 Pit Probe Boring
Depth to Restricting Layer (inches or feet) 4'
Maximum Depth of System 1'

Does the Septic Design Include a Drain Field? Yes No
New or Existing Tank? New Existing

Type of All Tank(s) to be installed :

- gal Single Compartment Septic Tank
- gal Compartmented Tank
- Pit Privy
- gal Holding Tank
- Existing Tank
- Existing Tank w/ New Additional Tank
- Existing tank w/new Lift Station
- Holding Tank with Privy

Total Number of Tanks to be Installed: 1 *This number will be reported to the MPCA at the end of the year.

Size of Tank(s) 500 gal
Is There an Alarm? Yes No
Type of Alarm: etc.
Is there an effluent screen? Yes No
Is There a Lift Pump? Yes No
If Yes, What is the Size of the Lift Pump? 1/2 Hp.
What is the Size of the Lift Line? 1 1/2"

Type of Drainfield	Full Size of Drainfield	Reduced/Warrantied Size	Size of Absorption Area _____
_____ Chamber Trench	_____ sq. ft.	_____ sq. ft.	Depth of Rock <u>9"</u>
_____ Rock Trench	_____ sq. ft.	_____ sq. ft.	Chamber Type and
_____ Graveless	_____ sq. ft.	_____ sq. ft.	Number _____
_____ Mound	_____ sq. ft.	_____ sq. ft.	Total Sq. Ft. Per Chamber
<input checked="" type="checkbox"/> Pressure Bed	<u>5775</u> sq. ft.		_____
_____ Seepage Bed	_____ sq. ft.		
_____ At-Grade	_____ sq. ft.		
_____ Alternative/Performance	_____ sq. ft.		

Is System Pressurized? Yes _____ No

*If System is pressurized, you must submit the applicable forms as listed below.

- Pressure Distribution System
- At Grade Design Worksheet
- Mound Design Worksheet- Slope 1% or Less
- Mound Design Worksheet- Slope 1% or More

What is the Perc Rate? 13.33 What is the Soil Sizing Factor? 1.27

*If SSF other than .83, you must attach the Perc Test Data

_____ 0.00	_____ 0.45	_____ 0.60	_____ 0.83	_____ 1.67
_____ 0.24	_____ 0.50	_____ 0.78	<input checked="" type="checkbox"/> 1.27	

Soil Borings (three are required) and ALL FIELDS ARE MANDATORY

Depth	Texture	Color	Structure Shape	Structure Grade	Structure Constancy
0-9	Sandy loam	10YR 3/1	Gran.	weak	friable
9-24	Sandy loam	10YR 4/1	Blocky	mod.	friable
24-48	Sandy	10YR 5/6	Gran.	mod.	loose

Depth	Texture	Color	Structure Shape	Structure Grade	Structure Constancy
0-9	sandy loam	10YR 3/1	Gran.	weak	friable
9-26	Sandy loam	10YR 4/1	Blocky	mod.	friable
26-50	Sandy	10YR 5/6	Gran.	mod.	loose

Depth	Texture	Color	Structure Shape	Structure Grade	Structure Constancy
0-8	Sandy loam	10YR 3/1	Gran.	weak	friable
8-23	Sandy loam	10YR 4/1	Blocky	mod.	friable
23-51	Sandy	10YR 5/6	Gran.	mod.	loose

Depth	Texture	Color	Structure Shape	Structure Grade	Structure Constancy

- Options for Texture:
- Loamy Sand
 - Loamy Coarse Sand
 - Fine Sand
 - Very Fine Sand
 - Loamy Fine Sand
 - Sandy Loam
 - Coarse Sandy Loam
 - Fine Sandy Loam
 - Very Fine Sandy Loam
 - Loam
 - Silt Loam
 - Silt
 - Clay Loam

- Sandy Clay Loam
- Silty Clay Loam
- Clay
- Sandy Clay
- Silty Clay
- Top Soil
- Redox/Limiting Layer

- Options for Structure Shape
- Granular
 - Platy
 - Blocky
 - Prismatic
 - Strong
 - Single Grain

- Options for Structure Grade:
- Massive
 - Weak
 - Moderate
 - Loose
- Options for Soil Structure Consistency:
- Loose
 - Friable
 - Firm
 - Extremely Firm
 - Rigid

Measurements & Setbacks: For a list of current required setbacks, see attached page.

Lake/River/Wetlands Info (If Applicable)

Is the property within 1000 Feet of a lake or within 300 feet of a river? Yes No
Lake Name Drainfield Distance from the OHW of Lake or River
Township Does the property contain or is it within 50 feet of a pond or wetland?
Classification Yes No
River Name Tank Distance from Closest Pond/Wetland
Tank Distance from OHW of Lake or River Drainfield Distance from the Closest Pond/Wetland

Road Type:

- State
X County
Public/Township
Private Easement
4 Lane Highway

I have found and marked the road right-of-way: Yes X No
Please note: Measurement is taken from the property pins (measure from pins into property).

Setback Verification

Table with 3 columns: Description, TANK, DRAINFIELD. Rows include Distance to Road, Distance to Property Line, Distance to Buildings, Distance to Pressure Line, Distance to Wetland/Protected Water, Distance to Well.

Depth of Well: Shallow X Deep

5. REQUIRED DOCUMENTS: If any of the following is required, please submit along with application:

- Property Line Agreement Form
Township Road Right of Way Encroachment Form
County Road Right of Way
U of MN worksheets are required for mounds, pressure beds, seepage beds, at grades or Type IV or type V systems.

Are the required worksheets attached?
X Yes No

6. DESIGNER'S CERTIFIED STATEMENT

I, Robert Keranen certify that I have completed the preceding design work in accordance with all applicable requirements (including, but not limited to Minnesota Chapter 7080 and the Becker County Individual Sewage Treatment System Ordinance).

Robert W. Keranen Signature of Designer
7/3/21 Date



Becker County Planning & Zoning
 915 Lake Ave
 Detroit Lakes, MN 56501
 (218) 846-7314
 www.co.becker.mn.us

3-30
 7-22-2021
 Feb

Septic Permit

Permit #: SS2021-1041

Owner & Property Information

Owner Name:	CHAD KARVONEN	Parcel #:	310028000
Mailing Address:	CHAD KARVONEN 49413 CO HWY 36 MENAHA MN 56464	Secondary Parcel #:	
Phone #:	218-255-3122	Site Address:	49413 CO HWY 36
Lake/River(1000/300):	No	Township - Sec/Twp/Rng:	SPRUCE GROVE - 04/138/037
Lake/River Name:		Designer:	Robert Keranen Jr, L2704 (Robert Keranen Jr)
Pond/Wetland(50):	No	Installer:	Robert Keranen Jr, L2704 (Robert Keranen Jr)

Specifications

Tank to be Installed:	Existing Tank with New Lift Station	Type of Drainfield:	Pressure Bed
Total # Tanks Installed:	1	Full Size of Drainfield:	577.5
System Status:	Failing System (Cesspool, Seepage Pit, other)	Reduced/Warrantied Size:	
System Serves:	Full-Time Dwelling	Absorbtion Area Size:	
Number of Bedrooms:	3	Rock Depth:	9"
Design Flow/GPD:	450	Chamber Type and Number:	
Garbage Disposal?	No	Chamber Trench SqFt/Chamber:	
Size of Lift Pump:	1/2 hp	Is System Pressurized?	Yes
Size of Lift Line:	1.5"	Alarm?	Yes
Soil Sizing Factor:	1.27	Type of Alarm:	electric

Setbacks

Road Type:	County	Right of Way Marked:	No
Tank Dist to Road:	200+	Drainfield Dist to Road:	200+
Tank Dist to Closest Prop Line:	100+	Drainfield Dist to Closest Prop Line:	100+
Tank Dist to Nearest Structure:	25	Drainfield Dist to Nearest Structure:	40
Tank Dist to Well:	100	Drainfield Dist to Well:	125
Tank Dist to OHW:		Drainfield Dist to OHW:	
Tank Dist to Pond/Wetland:		Drainfield Dist to Pond/Wetland:	
Tank Dist to Pressure Line:		Drainfield Dist to Pressure Line:	

Other Information

Date Approved:	7/15/2021
Permit Fee:	225.00
Receipt Number:	1524
Date Paid:	7/15/2021
Notes:	Utilize existing septic tank, add a 500 gallon pump tank and a pressure bed 15' X 38.5'

Zoning Office Signature:

Denise Gubrud

PERMIT MUST BE POSTED AT JOB SITE. PERMIT EXPIRES ONE YEAR FROM DATE PAID.

** Please schedule for inspection prior to installation! **



RECEIVED

JUL 13 2021

ZONING

Sewage tank

maintenance reporting form

Subsurface Sewage

Treatment Systems (SSTS) Program

Purpose: Management and maintenance of Subsurface Sewage Treatment Systems (SSTS) are important to ensure resource protection and long-term and cost-effective sewage treatment. Completion of this form complies with the sewage tank maintenance requirements under Minn. R. 7080.2450 and 7082.0600. This form may be used to certify the compliance status of the sewage tank components of the SSTS. **This form is not a complete SSTS inspection report, only a tank integrity assessment, and may only certify sewage tank compliance status when entirely completed and signed on page 3 by a qualified professional.**

Instructions: A copy of this information must be submitted to the system owner within 30 days of the maintenance date and be maintained by the licensed SSTS maintainer business for a period of five (5) years from the maintenance date. Maintenance reporting to the local unit of government may be required by local ordinance. Check with your local SSTS program for maintenance reporting protocol.

Secure maintenance hole covers

All maintenance hole covers must be returned to service in a sound and durable condition and be capable of withstanding the anticipated load.

Covers must be re-secured in accordance with Minn. R. 7080.2450, subp. 3, Items C or D:

- a) Covers installed under local ordinances adopted after February 4, 2008 must be locked, bolted or screwed or must be 95 pounds in weight. They must be made of material suitable for outdoor use, resistant to ultraviolet degradation and leaks, and not susceptible to being slid or flipped. They must have a label warning of hazardous conditions inside the tank. All screw openings must be refastened.
- b) Covers installed under local ordinances adopted before February 4, 2008 must either be buried with at least 12 inches of soil cover or be secured according to the local ordinance in effect before February 4, 2008.
- c) Covers must meet item 'a' above when raised to the ground surface or less than 12 inches from the ground surface.

Reporting information

Date of maintenance (mm/dd/yyyy): 7/9/2021 Reason for maintenance: Integrity Report

Property address: 49413 County hwy 36 Parcel ID: _____

City: Menahga State: MN Zip code: 56464

Property owner's name: Chad Karvonen

Property-owner's address if different: _____

City: _____ State: _____ Zip code: _____

Phone number: 218-255-3122 Email address: _____

1. Did you measure the accumulation of scum and sludge? Yes No (tank(s) pumped without measuring)

Tank (check if present)	Scum	Sludge	Operating depth	Percent full
<input type="checkbox"/> Septic/holding tank #1				
<input type="checkbox"/> Septic/holding tank #2				
<input type="checkbox"/> Pretreatment tank				
<input type="checkbox"/> Pump tank				

2. Access used to remove septage: Maintenance hole Other (Unless a holding tank, go to #4 below)

3. If the maintenance hole was used, were all covers secured in place? Yes No If no, please explain below:

4. If the owner refuses to allow a Subsurface Sewage Treatment System (SSTS) to be pumped through the maintenance hole, have them complete and sign the following statement.

I, Chad Karvonen, refuse to allow the removal of the solids and liquids through the maintenance
(Print owner's name)

hole. I understand that removal of solids and liquids through other access points is not considered a compliant method of solids removal and does not fulfill the solids removal requirements of Minn. R. 7080.2450 and 7082.0600.

By typing/signing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.

Owner's signature: _____ Date (mm/dd/yyyy): 7-9-2021

Property address: 49413 County hwy 36 Parcel ID: _____
 City: Menahga State: MN Zip code: 56464

5. Is the tank designed as a leaky tank? (Example: seepage pit, cesspool, drywell, leaching pit)

Tank #1: Yes No Verification method used: Sight
 Tank #2: Yes No Verification method used: _____

6. Is there evidence of the following?

Tank (check if present)	Tank leaks below the designed operating depth	Tank leaks above the designed operating depth	Maintenance hole cover is damaged, cracked, unsecured, or appears to be structurally unsound
<input checked="" type="checkbox"/> Septic/holding Tank #1	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Septic/holding Tank #2	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Pretreatment Tank	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Pump Tank	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Describe detail for any "Yes"			

7. How many gallons of septage were removed?

Tank #1: 1000 Tank #2: _____ Pretreatment Tank: _____ Pump Tank: _____

8. Where was the septage taken? Wastewater treatment facility Land application Other

Explanation (Facility name/Site #): MH

9. Did you identify any operational issues or unsafe conditions while assessing the sewage tanks in this system?

Yes No If yes, identify tank and explain:
 Evidence of non-domestic waste Baffle(s) condition Effluent screen condition
 Maintenance hole and extensions condition Other conditions (e.g. structural integrity of tank or lid, electrical hazard, etc.)

Explanation: _____

10. List any troubleshooting and minor repairs completed or declined by owner:

<input type="checkbox"/> Troubleshooting and repairs conducted:	<input type="checkbox"/> Repairs declined by owner:

Additional comments or suggestions for owner's consideration:

Pumping record

I personally conducted the work described above on behalf of a Minnesota-licensed SSTS Maintenance Business, in compliance with Minnesota Rules Chapters 7080 – 7083:

As a noncertified individual who has received proper training, daily work review, and periodic observation, or
 As a designated certified individual of the business listed below.

By typing/signing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.

Company information

Company name: Stenger's Septic Pumping
 Business license number: L2911
 Email: stengerspumping@hotmail.com
 Employee's signature: Terry Stenger

Employee information

Print name: Terry Stenger
 Certification number: (if applicable): _____
 Phone number: 218-847-3469

Date (mm/dd/yyyy): 7/9/2021

Property address: 49413 County hwy 36
City: Menahga State: MN

Parcel ID: _____
Zip code: 56464

Optional section: Sewage Tank Compliance Certification (Tank integrity assessment)

This form does not represent a complete system inspection report and only certifies sewage tank compliance status. i.e., this form, completed, may serve as a tank integrity assessment.

Instructions: This section of the form may be completed and signed by a Designated Certified Individual (DCI) of a licensed SSTS Maintenance Business who personally conducts the necessary procedures to assess the compliance status of each sewage tank in the system.

When this section of the form is signed by a qualified certified professional, it becomes *necessary supporting documentation* to an Existing System Compliance Inspection Report: Compliance inspection form - Existing system (wg-wwists4-31b). This form can be found on the MPCA website at <https://www.pca.state.mn.us/water/service-and-maintenance>.

The information and certified statement on this form is **required** when existing septic tank compliance status is determined by an individual other than the SSTS Inspector that submits an inspection report. This form represents a third party assessment of SSTS component compliance and is allowable under Minn. R. 7082.0700, subp. 4 Item (B) subitem (1). This form is valid for a period of three years beyond the signature date on this form unless a new evaluation is requested by the owner or owner's agent or is required according to local regulations. Additional Administrative Rule references for this activity can be found at Minn. R. 7082.0700, subp. 4 Items B, C, and D; 7083.0730 Item C.

Certificate of sewage tank compliance

Affirm all three statements:

- The SSTS does not contain a seepage pit, cesspool, drywell, leaching pit, or other pit.
- It does not contain a sewage tank that was designed to be watertight, but subsequently leaks below the designed operating depth.
- It does not represent an imminent safety threat by reason of unsecured, damaged, or weak maintenance hole cover(s) or other unsafe condition.

Notice of sewage tank non-compliance

Select all that apply:

- The SSTS has a seepage pit, cesspool, drywell, leaching pit, or other pit – **"Failure to Protect Groundwater."**
- It has a sewage tank that was designed to be watertight, but subsequently leaks below the designed operating depth – **"Failure to Protect Groundwater."**
- It presents a threat to public safety by reason of unsecured, damaged, or weak maintenance hole cover(s) or other unsafe condition. – **"Imminent Threat to Public Health or Safety."**

Company information

Company name: Stenger's Septic Pumping
Business license number: L2911

Designated Certified Individual (DCI) information

Print name: Monica Kjnaas
Certification number: C7014

I personally conducted the work described above as a Designated Certified Individual of a Minnesota-licensed SSTS Maintenance Business. I personally conducted the necessary procedures to assess the compliance status of each sewage tank in this SSTS.

By typing/signing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.

Designated Certified Individual's signature: Monica Kjnaas

Date (mm/dd/yyyy): 7/9/2021

Chad Karvonen

STENGER'S PUMPING



Trying to be #1 in a #2 business!

Septic Tank Cleaning Receipt

System Type

- Holding Tank
 Regular System

Access Method

- Maintenance Hole
 Inspection Pipe

System Integrity

- Tank Leakage
 Safety Concerns
 Maintenance Hole/Inspection Pipe Cover Damaged
 Troubleshooting/Repairs Needed

Notes:

Four horizontal lines for handwritten notes.

Your system has been properly maintained and should be visited again in 2-3 months/years. This will assure the proper operation and treatment of the wastewater at your site. If you have any questions please feel free to contact us at 218-847-3469.

Total amount collected: 1000 gal

SERVICED BY: TS Date: 07/09/2021

STENGER'S PUMPING
OWNER/OPERATOR: TERRY STENGER
LIC. # L2911



310028000-2021



COUNTY OF BECKER

Planning and Zoning

915 Lake Ave, Detroit Lakes, MN 56501
Phone: 218-846-7314 ~ Fax: 218-846-7266

June 30, 2021

Chad Karvonen
49413 Co Hwy 36
Menahga, MN 56464

Re Property: 31.0028.000

Dear. Mr. Karvonen,

A compliance inspection form was submitted into our office 06/28/21 stating the existing septic system servicing the property is noncompliant per inspection conducted 06/23/21.

The existing septic system is to be upgraded, repaired, or replaced per State and County regulations. You have 10 months from the date of non-compliance to update the system.

Enclosed is a list of ISTS contractors. An application for an upgraded system must be submitted into the office, with the installation completed within 10 months.

Any questions, please contact our office at 218-846-7314. Thank you.

Nicole Hultin

Nicole Hultin

Office Support Specialist

Compliance inspection report form

Existing Subsurface Sewage Treatment System (SSTS)

Doc Type: Compliance and Enforcement

Instructions: Inspection results based on Minnesota Pollution Control Agency (MPCA) requirements and attached supporting documentation – additional local requirements may also apply. Further information can be found here: <https://www.pca.state.mn.us/sites/default/files/wq-wwists4-31a.pdf>.

Inspector must submit completed form to Local Governmental Unit (LGU) and system owner within 15 days of final determination of compliance or noncompliance.

Property information

Local tracking number: _____

Parcel ID# or Sec/Twp/Range: 310028000 Local regulatory authority: Becker County
 Property address: 49413 Co HWY 36 Menahga MN 56464
 Owner/representative: Chad Karvonen Owner's phone: _____
 Brief system description: 1000 gal septic tank w/ trenches; 19 total chambers

System status

System status on date (mm/dd/yyyy): 6/23/2021

Compliant – Certificate of compliance*

(Valid for 3 years from report date unless evidence of an imminent threat to public health or safety requiring removal and abatement under section 145A.04, subdivision 8 is discovered or a shorter time frame exists in Local Ordinance.)

***Note: Compliance indicates conformance with Minn. R. 7080.1500 as of system status date above and does not guarantee future performance.**

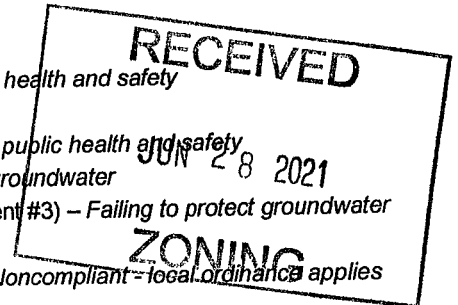
Noncompliant – Notice of noncompliance

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 or under section 145A.04 subdivision 8.

Systems failing to protect ground water must be upgraded, replaced, or use discontinued within the time required by local ordinance.

Reason(s) for noncompliance (check all applicable)

- Impact on public health (Compliance component #1) – *Imminent threat to public health and safety*
- Tank integrity (Compliance component #2) – *Failing to protect groundwater*
- Other Compliance Conditions (Compliance component #3) – *Imminent threat to public health and safety*
- Other Compliance Conditions (Compliance component #3) – *Failing to protect groundwater*
- System not abandoned according to Minn. R. 7080.2500 (Compliance component #3) – *Failing to protect groundwater*
- Soil separation (Compliance component #5) – *Failing to protect groundwater*
- Operating permit/monitoring plan requirements (Compliance component #4) – *Noncompliant - local ordinance applies*



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.

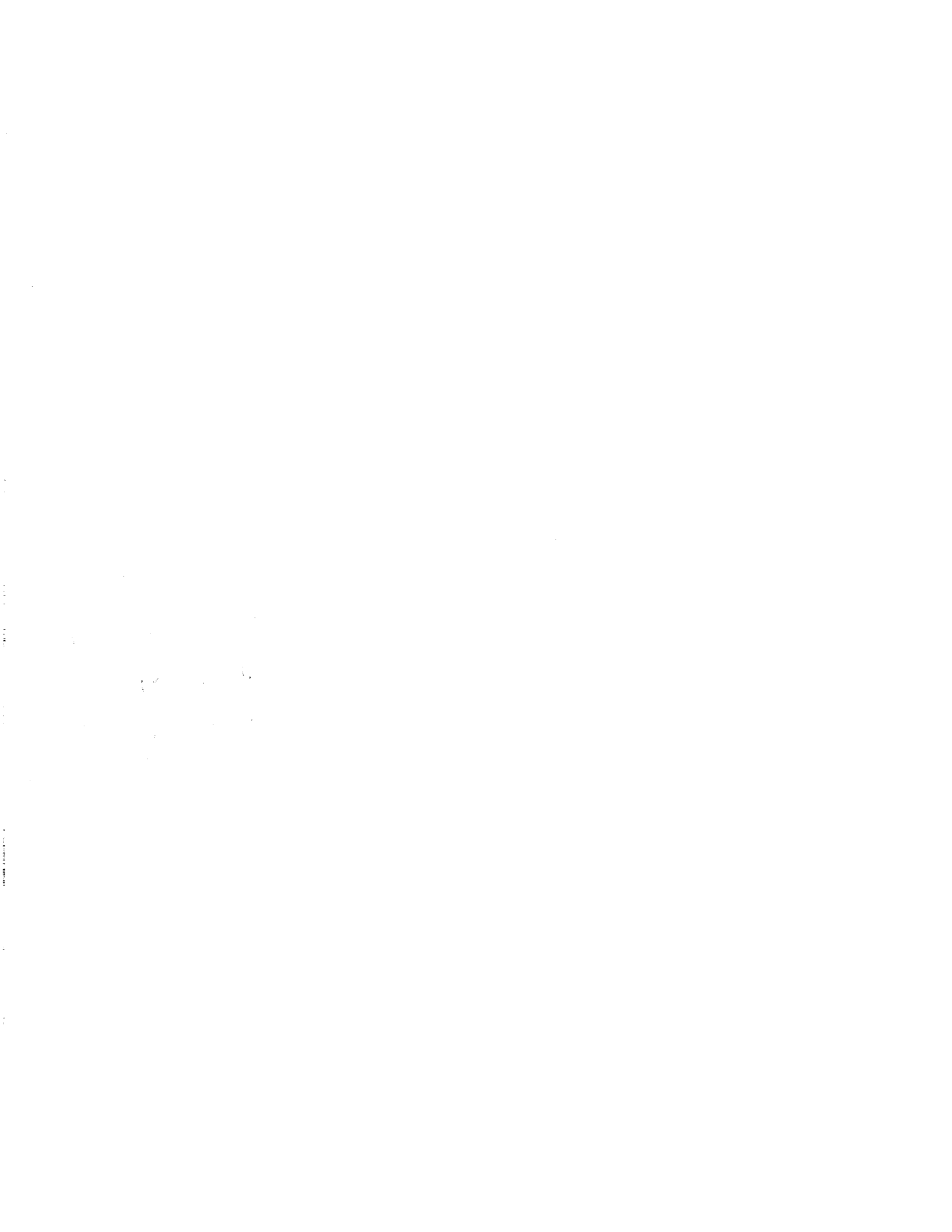
By typing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing this form.

Business name: Don Umthun
 Inspector signature: *Don Umthun*
 (This document has been electronically signed)

Certification number: 4549
 License number: 1867
 Phone: 218-252-6411

Necessary or locally required supporting documentation (must be attached)

- Soil observation logs
- Locally required forms
- Tank Integrity Assessment
- Operating Permit
- Other information (list): _____



1. Impact on public health – Compliance component #1 of 5

Compliance criteria:

System discharges sewage to the ground surface	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
System discharges sewage to drain tile or surface waters.	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
System causes sewage backup into dwelling or establishment.	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No

Any "yes" answer above indicates the system is an imminent threat to public health and safety.

Describe verification methods and results:

Attached supporting documentation:

- Other: _____
- Not applicable

2. Tank integrity – Compliance component #2 of 5

Compliance criteria:

System consists of a seepage pit, cesspool, drywell, leaching pit, or other pit?	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
Sewage tank(s) leak below their designed operating depth?	<input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No
If yes, which sewage tank(s) leaks:	

Any "yes" answer above indicates the system is failing to protect groundwater.

Describe verification methods and results:

Attached supporting documentation:

- Pumped at time of inspection
- Name of maintenance business: Thelen's
- License number of maintenance business: L534
- Date of maintenance: _____
- Existing tank integrity assessment (Attach)
- Date of maintenance (mm/dd/yyyy): _____ (must be within three years)
- (See form instructions to ensure assessment complies with Minn. R. 7082.0700 subp. 4 B (1))*
- Tank is Noncompliant (pumping not necessary – explain below)
- Other: _____

3. Other compliance conditions – Compliance component #3 of 5

- 3a. Maintenance hole covers appear to be structurally unsound (damaged, cracked, etc.), or unsecured?
 Yes* No Unknown
- 3b. Other issues (*electrical hazards, etc.*) to immediately and adversely impact public health or safety? Yes* No Unknown
***Yes to 3a or 3b - System is an imminent threat to public health and safety.**
- 3c. System is non-protective of ground water for other conditions as determined by inspector? Yes* No
- 3d. System not abandoned in accordance with Minn. R. 7080.2500? Yes* No
***Yes to 3c or 3d - System is failing to protect groundwater.**

Describe verification methods and results:

Attached supporting documentation: Not applicable _____

4. Operating permit and nitrogen BMP* – Compliance component #4 of 5 Not applicable

- Is the system operated under an Operating Permit? Yes No **If "yes", A below is required**
- Is the system required to employ a Nitrogen BMP specified in the system design? 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. Have the operating permit requirements been met? Yes No
- b. Is the required nitrogen BMP in place and properly functioning? Yes No

Any "no" answer indicates noncompliance.

Describe verification methods and results:

Attached supporting documentation: Operating permit (Attach) _____

5. Soil separation – Compliance component #5 of 5

Date of installation 7/2/2002 Unknown
(mm/dd/yyyy)

Shoreland/Wellhead protection/Food beverage lodging? Yes No

Compliance criteria (select one):

<p>5a. 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:</p> <p>Drainfield has at least a two-foot vertical separation distance from periodically saturated soil or bedrock.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No*
<p>5b. 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:</p> <p>Drainfield has a three-foot vertical separation distance from periodically saturated soil or bedrock.*</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No*
<p>5c. "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)</p> <p>Drainfield meets the designed vertical separation distance from periodically saturated soil or bedrock.</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No*

Attached supporting documentation:

- Soil observation logs completed for the report (Attach)
- Two previous verifications of required vertical separation (Attach)
- Not applicable (No soil treatment area)
- _____

Indicate depths or elevations

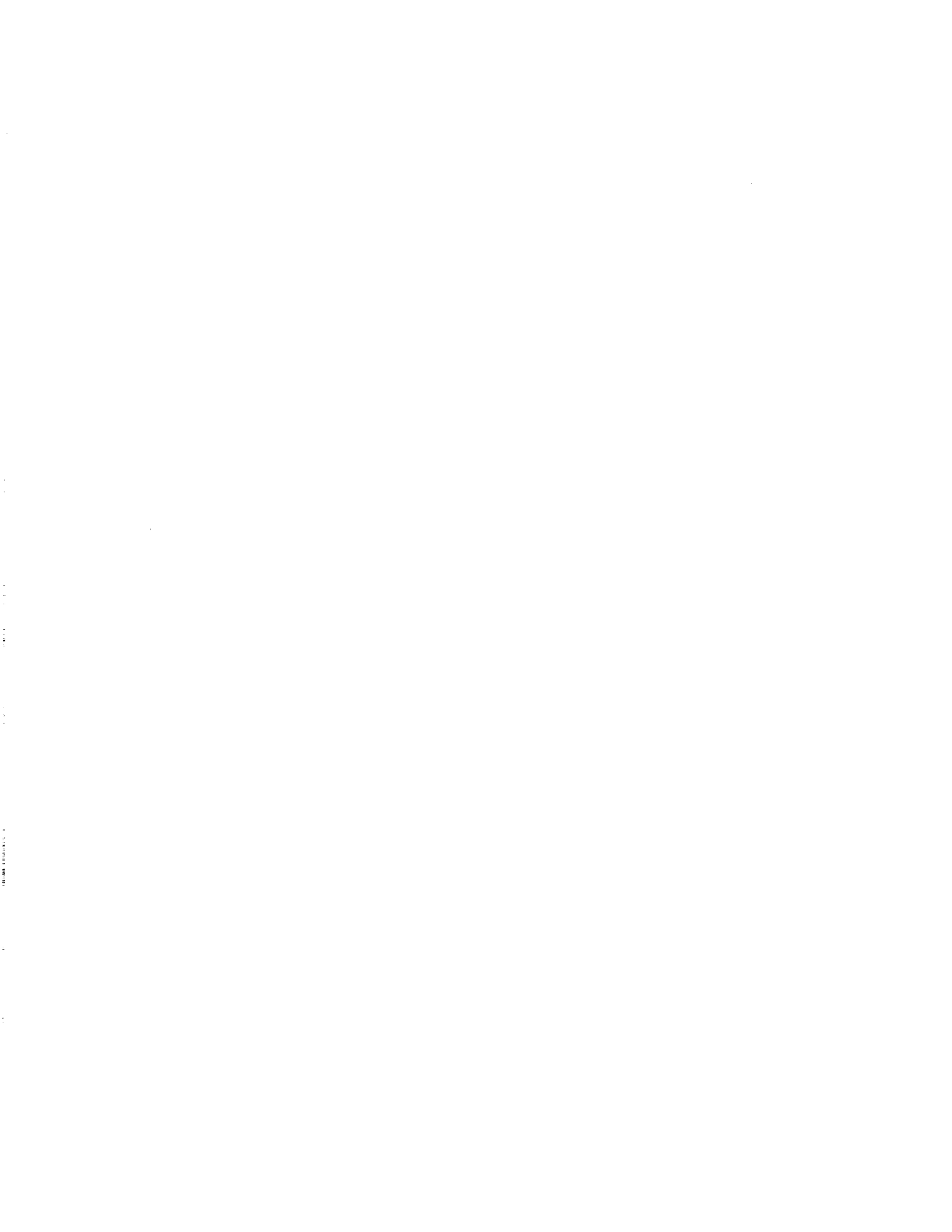
A. Bottom of distribution media	34"
B. Periodically saturated soil/bedrock	34"
C. System separation	0
D. Required compliance separation*	36"

*May be reduced up to 15 percent if allowed by Local Ordinance.

***Any "no" answer above indicates the system is failing to protect groundwater.**

Describe verification methods and results:

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.



SITE PLAN DOCUMENT WITH SOIL OBSERVATION

Plan Must Include:

- North Arrow (or Benchmark Feature)
- Existing and Proposed Buildings
- Well(s) Within 100' of the System
- Slope and Direction
- Tank Access Route
- Lot Dimensions
- Soil Boring Log
- Soil Boring Location
- All SSTS Components
- Tank Access Route
- Horizontal Setbacks
- Disturbed Areas

