



270039000-2021



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 #: SS2020-823

Owner & Property Information

Owner Name:	DAVID DEHAUT	Site Address:	37105 BRIETBACH RD
Mailing Address:	DAVID DEHAUT 37105 BRIETBACH RD PARK RAPIDS MN 56470	Township - Sec/Twp/Rng:	SAVANNAH - 13/142/036
Parcel #:	270039000	Legal Description:	LOTS 3 & 4 & SW1/4
Secondary Parcel #:		Designer:	Don Umthun, L1867 (Don Umthun)
		Installer:	OTHER – Not listed (please add in next field and we will add to our list)

Inspector Verified Specifications

Insp- Effluent Screen Installed:	No	Insp- Tank Nbr/Size:	2/1500 and 750
Insp- Alarm Required:	Yes	Insp- Drainfield Type:	Mound
Insp- Lift Pump in System:	Yes	Insp- Drainfield Size:	500
Insp- Number of Bedrooms:	4	Insp- Soil Verification:	#1:N/A #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	200+	Insp- Drainfield Dist to Nearest Prop Line	200+
Insp- Tank Dist to Nearest Structure	200+	Insp- Drainfield Dist to Nearest Structure	87
Insp- Tank Dist to Well	54	Insp- Drainfield Dist to Well	87
Insp- Tank Dist to OHW	na	Insp- Drainfield Dist to OHW	na
Insp- Tank Dist to Pond/Wetland	50+	Insp- Drainfield Dist to Pond/Wetland	50+
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: 9/17/2021

Zoning Office Signature:

Joe Doll - ISTS Inspector

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

Field Review Form

Permit # SS2020-823

Property and Owner

Owner: DAVID DEHAUT

Parcel Number: 270039000

Site Address: 37105 BRIETBACH RD

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
 Dishwasher? Y
 Grinder pump? Y
 Lift pump in basement? Y

Number of bedrooms: 4

Review - Number of bedrooms:

Effluent screen

Effluent screen installed? Y N Mfr:

Alarm: Yes Type: electric

Review - Alarm? Y N Type & Mfr:

Lift pump in system: Yes

Review - Lift pump in system? Y N Mfr:

Component Information

Tank size: 1500gal septic / 750gal lift

Review - Tank nbr: size: Mfr:

Drainfield type: Mound

Review - Drainfield type:

Drainfield size: Full size - 500
 Reduced/warr. size -

Review - Drainfield status: none / installed / next spring
 Review - Drainfield size:

Absorption area size: 6in

Review - Absorption area size:

Chamber type/num:
 Trench sqft/chamber -

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

Drainfield rock depth: 6in

Review - Rock depth:

Soil Verification

Vertical separation verified

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

Setback Verification

Distance to...	Designer submitted		Inspector verified	
	Tank	Drainfield	Tank	Drainfield
Road	200+	200+		
Nearest prop line	200+	200+		
Nearest structure	200+	87		
Well	54	87		
OHW	150+	166		
Pond/Wetland	50+	50+		
Pressure line	50+	50+		

Date System Installed: 9/17/21 Installer: The Ken

Inspector: [Signature]



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218 732 0015

Septic Permit

Permit #: SS2020-823

Owner & Property Information

Owner Name:	DAVID DEHAUT	Parcel #:	270039000
Mailing Address:	DAVID DEHAUT 37105 BRIETBACH RD PARK RAPIDS MN 56470	Secondary Parcel #:	
Phone #:	732-7734	Site Address:	37105 BRIETBACH RD
Lake/River(1000/300):	Yes	Township - Sec/Twp/Rng:	SAVANNAH - 13/142/036
Lake/River Name:	Boogun (Savannah) [NE Tier 3]	Designer:	Don Umthun, L1867 (Don Umthun)
Pond/Wetland(50):	Yes	Installer:	OTHER – Not listed (please add in next field and we will add to our list)

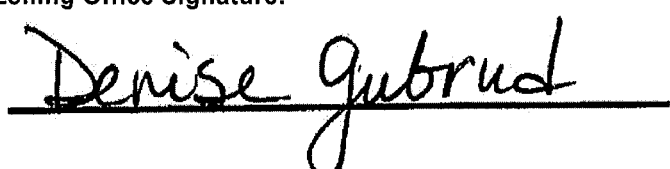
Specifications

Tank to be Installed:	Single Septic Tank	Type of Drainfield:	Mound
Total # Tanks Installed:	2	Full Size of Drainfield:	500
System Status:	Replacement System	Reduced/Warrantied Size:	
System Serves:	Full-Time Dwelling	Absorbtion Area Size:	800
Number of Bedrooms:	4	Rock Depth:	6in
Design Flow/GPD:	600	Chamber Type and Number:	
Garbage Disposal?	No	Chamber Trench SqFt/Chamber:	
Size of Lift Pump:	zoeller 151	Is System Pressurized?	Yes
Size of Lift Line:	2	Alarm?	Yes
Soil Sizing Factor:	1.27	Type of Alarm:	electric

Setbacks

Road Type:	Public / Township	Right of Way Marked:	No
Tank Dist to Road:	200+	Drainfield Dist to Road:	200+
Tank Dist to Closest Prop Line:	200+	Drainfield Dist to Closest Prop Line:	200+
Tank Dist to Nearest Structure:	200+	Drainfield Dist to Nearest Structure:	87
Tank Dist to Well:	54	Drainfield Dist to Well:	87
Tank Dist to OHW:	150+	Drainfield Dist to OHW:	166
Tank Dist to Pond/Wetland:	50+	Drainfield Dist to Pond/Wetland:	50+
Tank Dist to Pressure Line:	50+	Drainfield Dist to Pressure Line:	50+

Other Information

Date Approved:	11/20/2020	Zoning Office Signature:	
Permit Fee:	225.00		
Receipt Number:	1601		
Date Paid:	8/11/2021		
Notes: Install a 1500 gallon septic tank, a 750 gallon lift tank, a mound system with a 2' sand lift, a 10' X 50' rock bed and a 15' X 50' soil absorption area			

PERMIT MUST BE POSTED AT JOB SITE. PERMIT EXPIRES ONE YEAR FROM DATE PAID.
 ** Please schedule for inspection prior to installation! **

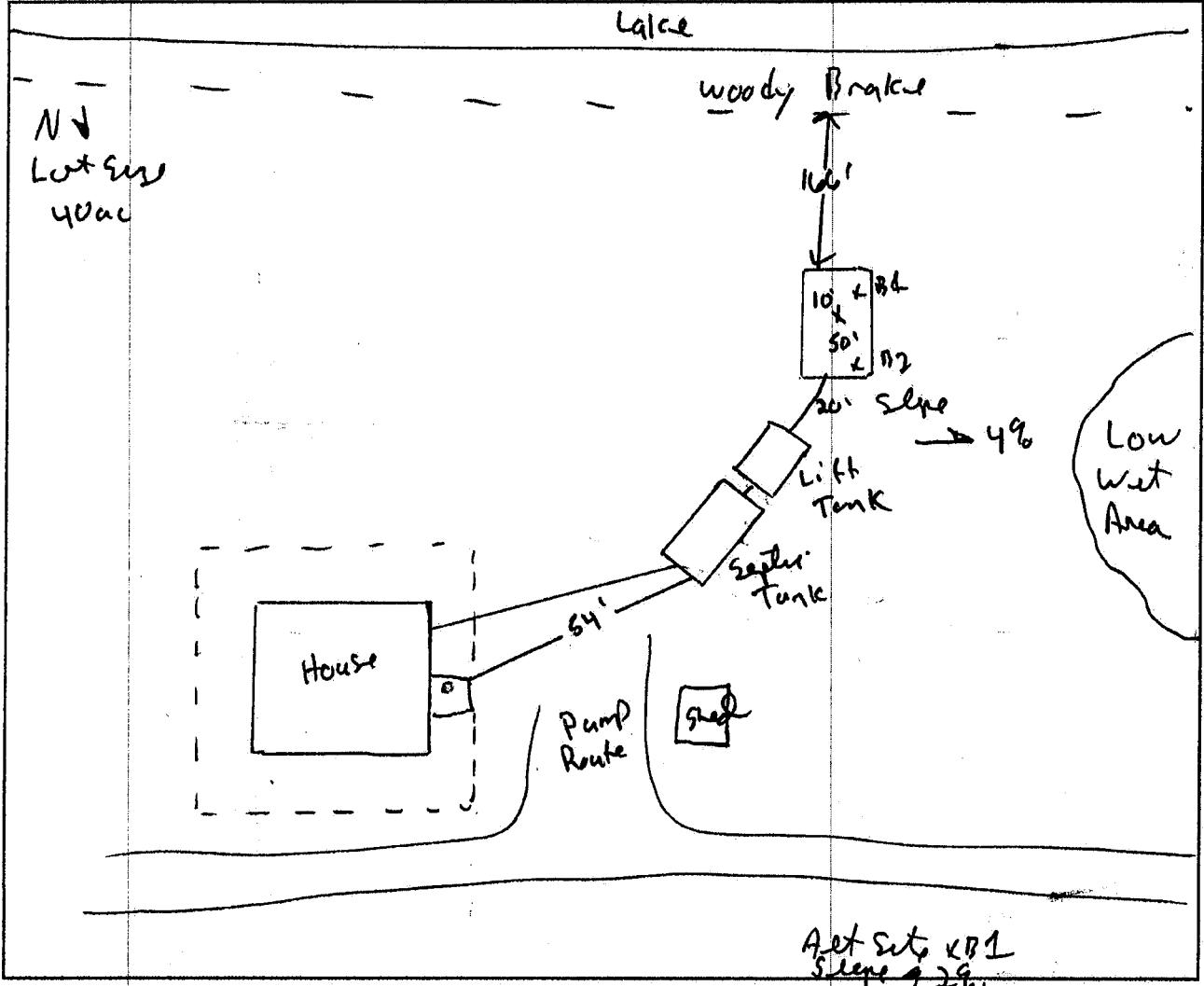
270039000
Dehaut 823

County Mound Design

Property Owner: David Dehaut

Date: November 12, 2020

Please Draw to Scale with North Arrow to top or Left Side of Page



Please show all that apply (Existing or Proposed):

- | | | |
|---|---------------------------|-----------------------------------|
| Wells within 100 ft. of a Drainfield | Disturbed/Compacted Areas | Access Route for Tank Maintenance |
| Water lines within 10 ft. of a Drainfield | Component Location | Property Lines |
| Drainfield Areas | OHW | Structures |
| Boring Locations | Lot Easements | Setbacks |

Elevations:

- | | |
|-----------------------------------|------------------------------|
| Benchmark Elevation: | Pump Elevation: |
| Elevation of Sewer Line at House: | Pump Discharge Elevation: |
| Tank Inlet Elevation: | Restricting Layer Elevation: |
| Drainfield Elevation: | |

Designer Signature: *David Dehaut*

Date: 11-16-20 License Number: 1867

Submit Form

Click the "Submit Form" button to the left to submit the design sheet and an new e-mail message will open with the completed design sheet attached. Please attach the site drawing if applicable and any other necessary paperwork to this e-mail before sending.

Reset Form

Click the "Reset Form" button to the left to clear all information from the form and start again.

County Mound Design

Property Owner: David Dehaut

Date: November 12, 2020

Mailing Address: 37105 Brietbach Rd

City: Park Rapids

State: Mn

Zip: 56467

Phone Number: 732-7734

Site Address (if different from Mailing address):

City:

State:

Zip:

Driving directions if no E911 number:

Legal Description:

Sec: 13 Twp: 142

Range: 36

TwP Name: Savannah

Parcel Number: 270039000

Lake/ River:

Lake/River Classification: General Development

Choose the GPD below OR type in the amount in the "Other GPD" box below.

Flow Data

Number of Bedrooms: 4

Dwelling Classification: 1

System Type: 1

GPD: 600

Estimated Flow in Gallons per Day (GPD)					
Bedrooms		Class I	Class II	Class III	
2	<input type="checkbox"/>	300	<input type="checkbox"/>	225	<input type="checkbox"/> 180
3	<input type="checkbox"/>	450	<input type="checkbox"/>	300	<input type="checkbox"/> 218
4	<input checked="" type="checkbox"/>	600	<input type="checkbox"/>	375	<input type="checkbox"/> 256
5	<input type="checkbox"/>	750	<input type="checkbox"/>	450	<input type="checkbox"/> 294
6	<input type="checkbox"/>	900	<input type="checkbox"/>	525	<input type="checkbox"/> 332
7	<input type="checkbox"/>	1050	<input type="checkbox"/>	600	<input type="checkbox"/> 370
8	<input type="checkbox"/>	1200	<input type="checkbox"/>	675	<input type="checkbox"/> 408

Other GPD
Amount:

Wells

Deep Well: Existing Deep

Shallow Well: None

Wells to be sealed (if applicable)?

Setbacks

Tank(s) to: Well 54

House 53

Property Line 10+

Drainfield to: Well 87

House 85

Property Line 10+

Sewer Line to well: 50+

Air Test: No

Additional System Notes and Information:

Designer Name: Don umthun

License Number: 1867

Address: P.O. Box 391

City: Nevis

State: Mn

Zip: 56467

Phone Number: 218-252-6411

E-Mail Address: donumthun@hotmail.com

County Mound Design

Property Owner: David Dehaut

Date: November 12, 2020

Designer's Initials: du

Tank Sizing

- A. Septic Tank Capacity: 1500 Gallons
 Tank Type: 1 Compartment Filter: No
 Garbage Disposal/Basement Lift Station: No Disposal or Lift
- B. Pump Tank Capacity: 750 Gallons (7080.2100)
 - a. Alarm Type: Electric

Septic Tank Capacity		
Bedrooms	Minimum	GD/BL
4 or less	1,000	1,500
5 or 6	1,500	2,250
7, 8 or 9	2,000	3,000

Soils

- C. Depth to Restricting Layer: 1 ft
- D. Depth of Clean Sand at Upslope Edge: 2 ft
- E. Native SSF: 1.27 (from table to the right) [Perc. Rate (Optional) MPI]
- F. Land Slope: 3 %

Absorption Width Ratio Table			
Texture	SSF	AWR	
Sand <input type="checkbox"/>	0.83 <input type="checkbox"/>	1.00	<input type="checkbox"/>
Fine Sand <input type="checkbox"/>	1.67 <input type="checkbox"/>	2.00	<input type="checkbox"/>
Sandy Loam <input checked="" type="checkbox"/>	1.27 <input checked="" type="checkbox"/>	1.52	<input checked="" type="checkbox"/>
Loam <input type="checkbox"/>	1.67 <input type="checkbox"/>	2.00	<input type="checkbox"/>
Silt Loam <input type="checkbox"/>	2.00 <input type="checkbox"/>	2.40	<input type="checkbox"/>
Clay Loam <input type="checkbox"/>	2.20 <input type="checkbox"/>	2.67	<input type="checkbox"/>

Rock Bed Dimensions

- G. Total square feet: 498 sq. ft
- H. Rock Bed Width: 10 ft
- I. Rock Bed Length: 50.00 ft
- J. Rock Depth: 1 ft Cubic Yards of Rock: 18.52 yds³

Mound Size Calculations

- K. AWR (from table to the right): 1.52 Absorption Width: 15.20 ft
- L. Downslope Minimum: 5.20 ft
- M. Upslope Height: 4.00 ft
- N. Enter upslope berm value from Berm Multiplier Table (below): 3.00
- O. Upslope Width: 12.00 ft
- P. Drop in Elevation: 0.30 ft
- Q. Downslope Height: 4.30 ft
- R. Enter downslope berm value from Berm Multiplier Table (below): 3.00
- S. Downslope Width: 12.90 ft
- T. Select the larger number of Step (L) and Step (S): 12.90 ft
- U. Mound Width: 34.90 ft
- V. Mound Length: 74.00 ft
- W. Final Mound Dimensions Are: Width: 34.90 ft by Length: 74.00 ft

Berm Multiplier Table														
	Land Slope→	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
Upslope Berm ↓	3/1	3.00	2.91	2.83	2.75	2.68	2.61	2.54	2.48	2.42	2.36	2.31	2.26	2.21
	4/1	4.00	3.85	3.70	3.57	3.45	3.33	3.23	3.12	3.03	2.94	2.86	2.78	2.70
	5/1	5.00	4.76	4.54	4.35	4.17	4.00	3.85	3.70	3.57	3.45	3.33	3.23	3.12
	6/1	6.00	5.66	5.36	5.08	4.84	4.62	4.41	4.23	4.05	3.90	3.75	3.61	3.49
Downslope Berm ↓	7/1	7.00	6.54	6.14	5.79	5.46	5.19	4.93	4.70	4.49	4.30	4.12	3.95	3.80
	3/1	3.00	3.09	3.19	3.30	3.41	3.53	3.66	3.80	3.95	4.11	4.29	4.48	4.69
	4/1	4.00	4.17	4.35	4.54	4.76	5.00	5.26	5.56	5.88	6.25	6.67	7.14	7.69
	5/1	5.00	5.26	5.56	5.88	6.25	6.67	7.14	7.69	8.33	9.09	10.00	11.11	12.50
	6/1	6.00	6.38	6.82	7.32	7.89	8.57	9.38	10.34	11.54	13.04	15.00	17.65	21.43
	7/1	7.00	7.53	8.14	8.86	9.72	10.77	12.07	13.73	15.91	18.92	23.33	30.43	43.75

County Mound Design

Property Owner: David Dehaut

Date: November 12, 2020

Designer's Initials: du

Determine Pump Capacity

1) Gravity Distribution Pump Capacity Range: 10 - 45 GPM

*Skip to Pump Head Requirements if pumping to gravity

2) Pressure Distribution:

- a) Number of laterals: 3
- b) Lateral Size: 2 in.
- c) Perforation spacing: 3 ft
- d) Check Table 4 to see the maximum number of perforations per lateral.

3) Lateral Length (choose):

Rock Bed Length: 50 ft

- a) End manifold: 48 ft
- b) Center manifold: 24 ft
- c) Choose 3a or 3b: 48 ft

4) Total Perforation Determination:

- a) 17 Perforations / Lateral
- b) 51 Total Number of Perforations
- c) Select perforation discharge from Table 1 = .74 GPM/Perf.
- d) 37.7 GPM

PUMP HEAD REQUIREMENTS

5) Elevation difference:

- a) Elevation difference between pump and point of discharge 7 ft
- b) If pumping to a pressure distribution system: 12.0 ft
- c) Choose 5a if pumping to gravity or 5b for pressure: 12.0 ft

6) Friction loss:

- a) Select a value from Table 2: 2.64 ft / 100 ft of pipe
- b) Pipe length to drainfield: 20 ft \times 1.25 = 25.0 ft
- c) 0.7 Friction Loss

7) Drainback:

- a) 20 \times .17 gal/ft (Table 3) = 3.4 gal

8) 12.7 Total Head Required

9) Minimum Pump Size 37.7 GPM & 12.7 ft of dynamic head
Pump Model: zoeller 151

Ft. of Head	7/32 Perf Diameter	1/4 Perf Diameter
1.0	0.56 in.	0.74 in.
2.0	0.80 in.	1.04 in.

Flow (GPM)	1.5"	2"	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	0.30
40	8.91	2.64	0.39
45	11.07	3.28	0.48
50	13.46	3.99	0.58
55		4.76	0.70
60		5.60	0.82
65		6.48	0.95
70		7.44	1.09

Use 1.0 for single homes, 2.0 for everything else

Pipe Diameter	Gal/Ft.
1.25 in.	0.078
1.5 in.	0.11
2.0 in.	0.17

Perf. Spacing	1.25" Pipe	1.5" Pipe	2" Pipe
2.5 ft.	14	18	28
3 ft.	13	17	26
3.3 ft.	12	16	25
4 ft.	11	15	23
5 ft.	10	14	22

County Mound Design

Property Owner: David Dehaut

Date: November 12, 2020

Designer's Initials: du

Proposed Site Boring #1

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox
0-6	sandy loam	0%	10yr 3/2	weak	no
6-16	sandy loam	"	10yr 5/4	weak	no
16+	sandy clay loam	"	10yr 5/4	blk	yes
			10yr 6/2		

Proposed site Boring #2

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox
0-6	sandy loam	0%	10yr 3/2	weak	no
6-16	sandy loam	"	10yr 5/4	weak	no
16+	sandy clay loam	"	10yr 5/4	blk	yes
			10yr 6/2		

Alternate Site Boring #1

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox
0-6	sandy loam	0%	10yr 3/2	weak	no
6-18	sandy loam	"	10yr 5/4	weak	no
18+	sandy clay loam	"	10yr 5/4	blk	yes
			10yr 6/2		

Alternate Site Boring #2

Depth (in)	Texture	Coarse Frag. %	Color	Structure	Redox

Soil Sizing Factors/Hydraulic Loading Rates

Perc. Rate	Texture	SSF	HLR	Perc. Rate	Texture	SSF	HLR
<0.1	Coarse Sand			16 to 30	Loam	1.67	0.60
0.1 to 5	Sand	0.83	1.20	31 to 45	Silt Loam	2.00	0.50
0.1 to 5	Fine Sand	1.67	0.60	46 to 60	Clay Loam	2.20	0.45
6 to 15	Sandy Loam	1.27	0.78	> 60	Clay Loam	****	0.24

Description of Soil Treatment Areas

	Proposed Site		Alternate Site	
Disturbed Areas?	no		no	
Compacted Areas?	no		no	
Flooding Potential?	no		no	
Run-on Potential?	no		no	
Limiting Layer Depth	Proposed #1: 16in	Proposed #2: 16in	Alternate #1: 18in	Alternate #2:
Slope % and Direction	4%		2%	
Landscape Position	hill top		side hill	
Vegetation Types	spruce trees		spruce trees	
Soil Texture	sandy loam		sandy loam	
Soil Sizing Factor	.83		.83	

Subsurface Sewage Treatment System Management Plan

Property Owner: David Dehaut Phone: 732-7734 Date: 11/16/2020
Mailing Address: _____ City: _____ Zip: _____
Site Address: 37105 Brietbach Rd City: Park Rapids Mn Zip: 56470

This management plan will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic service provider.

System Designer: check every _____ months.
Local Government: check every _____ months.
State Requirement: check every 36 months.

My System needs to be checked every 36 months.

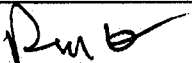
Homeowner Management Tasks

- Leaks* - Check (look, listen) for leaks in toilets and dripping faucets. Repair leaks promptly.
- Surfacing sewage* - Regularly check for wet or spongy soil around your soil treatment area.
- Effluent filter* - *Inspect and clean twice a year or more.*
- Alarms* - Alarm signals when there is a problem. Contact a service provider any time an alarm signals.
- Event counter or water meter* - Record your water use.
-recommend meter readings be conducted (choose one: Daily Monthly Yearly

Professional Management Tasks

- € Check to make sure tank is not leaking
- € Check and clean the in-tank effluent filter
- € Check the sludge/scum layer levels in all septic tanks
- € Recommend if tank should be pumped
- € Check inlet and outlet baffles
- € Check the drainfield effluent levels in the rock layer
- € Check the pump and alarm system functions
- € Check wiring for corrosion and function
- € Check dissolved oxygen and effluent temperature in tank
- € Provide homeowner with list of results and any action to be taken
- € Flush and clean laterals if cleanouts exist

"I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in the Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Name: David Dehaut 11/16/2020
Designer Signature:  11/16/2020

See Reverse Side for Home Owner Management Log