Septic Inspection Report

Confidential - Property Inspection Report - Confidential

1234 a Pemberton Dr , Salisbury , MD 21801
Inspection prepared for: Andy Griffin
Real Estate Agent: Your Buyers Agent - Respected Realtors

Date of Inspection: 5/19/2022 Time: Monday -Friday 8 - 4
Age of Home: 2009 Size: 4 bedroom
Weather: Clear and cool

Inspector: Scott Donnelly
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High Tech Inspections, Inc.

About Your Septic Inspection and Report

Your septic inspection is designed to provide an evaluation of the current working condition of the properties septic system and to idenfify areas of concern. The inspection is performed to meet or exceed industry standards. **However the inspection and report are not a prediction, warranty or guarantee as to how long the septic system will function in the future.** Many factors impact the systems current and future performance a few of which include, past maintenance and use practices, age, original design and materials used, soil types, invasive vegetation, high ground water levels during periods of heavy or prolonged precipitation, and the number of past and future occupants.

The average life expectancy of septic systems is 20 - 30 years. However there are many systems that last longer, or fail sooner. This is just an average, which is shared so buyers can plan, and budget for replacement accordingly. Proper usage and maintenance can help extend the life span, just as misuse and poor maintenance can shorten the life span. We recommend you take the time to read the proper use section at the end of your report.

Design characteristics of septic systems have changed significantly in recent years. Newer systems are generally designed to be much closer to the surface then in years past. This allows for better treatment of the effluent and lessens the impact of high ground water tables on the systems over all level of performance. Ground water tables can vary from season to season or even day to day. As a home owner you will expect your system to work in all seasons and condtions, therfore we inspect in all seasons and all (safe) conditions. ***During periods of heavy or prolonged precipitation the water table can impact the septic systems performance. Older, deeper systems can be more susceptible to these fluctuations. This is a primary reason why your report is an observation of the systems working condition only on the day of the inspection.*** Other design changes include the use of plastic components and tanks, aerobic tanks and a much higher use of; sand mounds, low pressure drip systems, pressure dosing systems, and other innovative systems. Your High Tech Inspector is trained and expieranced to test the systems found in our area.

The number of occupants can have a significant impact on a septic system. A fully occpuped two bedroom home uses an average of 300 gallons per day. A fully occupied four bedroom home uses an avarage of 600 gallons a day and greatly increase the demands on a septic system. One person can live in a home with a poorly functioning septic system for years and never notice a problem, where as the system might have difficulting perfoming in a satisfactory manner after a large family occupies. Vacant homes present special concerns. A hydraulic load test involving two days of testing is recommended for homes that have been vacant for more then seven days. The added cost of this type of test precludes most clients from ordering it. Please keep in mind our testing standard, while more rigouus than for an occupied home, maybe less diagnostic when a home has been sitting vacant. It is often not possible to gain historical information about occpency levels and past maintenance practises. When the owners are available at the time of inspection the inspector will attempt to gather pertinent information.

Thanks for the opportunity to conduct this inspection for you. After reviewing the report we are available to answer any questions you may have. Sincerely, Scott Donnelly HighTech Inspections 410-713-5080 or Scott@hightechinsp.com

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Inspection Summary

The following unsatisfactory conditions were found at the time of the inspection. The description of these unsatisfactory conditions generally include a suggested course of action. Other areas of concern may have been found that are also descrbed in this summary section. Areas of concern may also require action or may be reported only as an FYI.

Septic Description		
Septic Tank		
Page 5 Item: 6	Inlet Baffle	• Unsatisfactory • The inlet baffle is damaged and most of it is missing, consult a septic contractor for replacement as needed.
Distribution Box		
Page 7 Item: 2	Distribution Box Structural Integrity	• Unsatisfactory • The distribution box is no longer intact. There are holes in the side. I suggest further evaluation by a licensed septic contractor for its replacement at this time.

Areas of Concern		
Septic Tank		
Page 5 Item: 4	Tank walls, floor, and roof conditions	• Areas of concern • Maintenance: Gaps observed around the inlet and outlet pipes of the septic tank. These gaps can allow water, roots, and dirt penetration. I suggest sealing around the inlet and outlet pipes to prevent water, dirt, and roots from penetrating the tank.

Age and Life Span

1. Systems Age, and General Information

Materials: Based on public records the septic system was installed in 2008 and the age of the drain field is 14 years old. The average life span of a drain field is generally considered to be 20 -30 years. However, the life span can vary greatly. There are many factors that contribute to drain field longevity, some of which are design, installation techniques, soil type, maintenance, and level of usage. I suggest review of the maintenance suggestions at the end of this report. Making any repairs suggested in this report and following suggested maintenance procedures may help your system last longer.

Property details

1. Type of Dwelling

Observations: Single Family Detached Home

2. Number of current occupants

Owners report:
• No Report

3. Number of bedrooms

Observations:
• Three bedroom house

4. Number of occupants of prospective buyer

Buyers report:
• Clients not available to provide this information.

5. Weather

Observations:
• Clear and cool

6. Ground Conditions

Observations:
• Recent precipitation

7. Approximate Age of system

Public Records:
• Public records indicate the system was installed in:
• 2009

8. Garabge disposal present

Observations:
• There is no garbage disposal present. They are not recommend for use with a septic system.

9. Soil fracturing reported in last 30 days

Owners report/records:
• No report of soil fracturing or other types of rejuvenation.

10. Date of last pumping

Owners report:
• Current owner unavailable to provide date of last pump out.

11. Second Opinion

Has: This is not a second opinion inspection.

12. Water treatment, grey water

System Information: There does not appear to be a water treatment system discharging into the septic system. It is recommended that water treatment systems discharge to a separate location

Septic Tank

1. Location of the Septic (treatment tank) Tank

Materials: For the purpose of this report the home faces: • North • The septic is located at the: • South Side

2. Non Conventional Tanks

Materials: None present

3. Nitrate Reduction Tank

Materials: None present • For more information on Nitrate reduction tanks and septic systems visit. https://nwdistrict.ifas.ufl.edu/nat/2021/04/09/reducing-the-impact-of-septic-systems-through-advanced-nitrogen-treatment/

4. Tank walls, floor, and roof conditions

Size: approximately 1000 gallon double compartment.
Material: Concrete tank.
Observations:
• Areas of concern
• Maintenance: Gaps observed around the inlet and outlet pipes of the septic tank. These gaps can allow water, roots, and dirt penetration. I suggest sealing around the inlet and outlet pipes to prevent water, dirt, and roots from penetrating the tank.

5. Septic tank lid

Material: concrete lids
Observations:
• Satisfactory

6. Inlet Baffle

Material: Cast concrete
Observations:
• Unsatisfactory
• The inlet baffle is damaged and most of it is missing, consult a septic contractor for replacement as needed.

The inlet baffle is damaged and most of it is missing,

7. Outlet Baffle

Material: PVC Piping with Filter
Observations:
• Satisfactory
• The filter was removed and cleaned. Filters should be removed and cleaned several times a year or as needed depending on the level of use. Pull the filter with a tool. Do not put your head into the riser areas. Hose the filter off over the tank's inlet side and return the filter to its proper position. Or contact high tech inspections or a septic service provider for cleaning as needed.

The filter was removed and cleaned.

8. Level of solids

Conditions: 1-2 inches
Observations:
• Satisfactory
• The combined level of solids and scum is -1-2 inches and the tank does not require pumping at this time. I suggest pumping in 2-3 years, depending on level of use.

The combined level of solids and scum is -1-2 inches and the tank does not require pumping at this time.

9. Operating Condition of the Septic Tank

Observations:
• Satisfactory
• Water was observed flowing into and out of the septic tank with no rise in the water level. Water levels were satisfactory. See notes regarding having the inlet baffle replaced and sealing around the inlet and outlet pipe.

Lift Pump

1. Lift Pump Location

Materials: No lift tank or lift pump was not observed with this system. When these systems are present we open and inspect the tank and test the pump, alarm system and electrical components.

Distribution Box

1. Location of Distribution Box

Materials: The distribution box is located approximately 6-8 feet in a straight line from the outlet side of septic tank. • The distribution box is approximately 6-10" deep
Observations:
• The distribution box is located in the area shown in the photo

2. Distribution Box Structural Integrity

Material: Concrete
Observations:
• FYI: This comment is for educational puposes for this sample report. The Distribution is by the far the system component that has the most problems. The relatively thin walls of concrete D. boxes are prone to deterioration that results in holes or even partial collapse. Roots and dirt can than get into the drain lines and shorten the systems' life.
• Unsatisfactory
• The distribution box is no longer intact. There are holes in the side. I suggest further evaluation by a licensed septic contractor for its replacement at this time.

The distribution box is no longer intact. There are holes in the side.

Newer plastic D boxes are less prone to damage

3. D Box Lid Structural Integrity

Material: Concrete
Observations:
• Satisfactory

4. Operation Comments

Observations:
• Satisfactory
• The flow was relatively equal to all drain lines with no back up in the box or into the inlet pipe.

Drainage Field

1. Drain Field Type

Type: Full Depth Gravity

2. Location of Drain Field

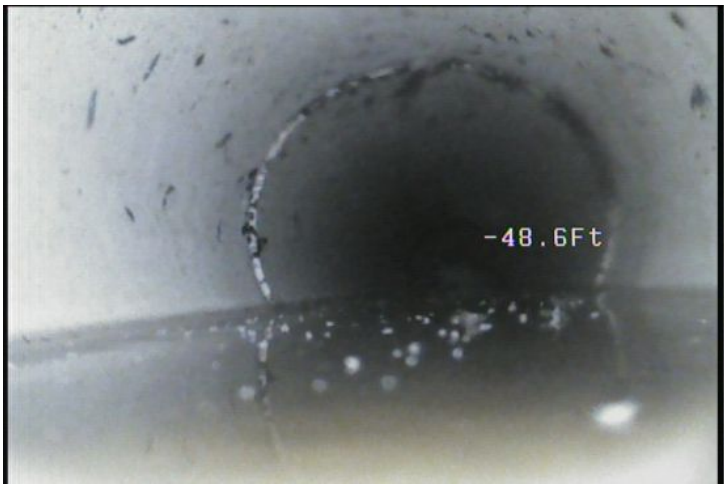
Materials: The drain field is located in the back yard
Observations:
• See the included photo for the approximate location of the drain field.

3. Drain Field Total Footage

Aproximate Length: Drain field is approximately __170__ feet.
Observations:
• Satisfactory
• The total amount of drain field is determined by the county health department. The size is determined by the size of the home, soil conditions, perc tests, and other variables, therefore, it is difficult for us to second guess the amount of drain field that should be installed on any particular property.

4. Test Results

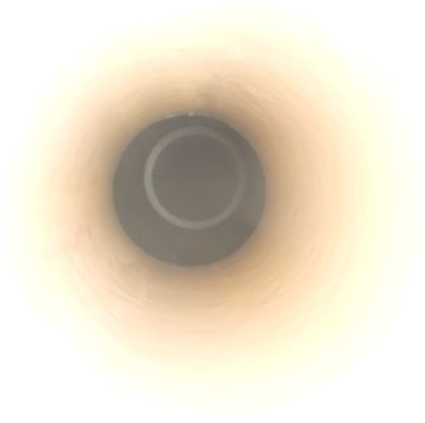
Observations: approximately 450 gallons were run from the distribution box into the drain field as part of a flow test to check the proper operation of the drain field.
Observations:
• Satisfactory
• Flow was relatively equal to all drain lines. The water level in the distribution box did not rise. At the end of the flow test we did not observe any flow back from the drain lines. Soil bore holes over the drain field were dry.
• For the purpose of this sample report we have included some pictures of the type of problems we find in drain lines.



this system was working well with a trickle of water flowing out.

This drain line has roots and debris in it. It was still operating but very slowly

High Tech uses a variety of fiber optic septic cameras to check out your drain lines as needed



This was a new drain line and one section of pipe has become disconnected prior to being used.

bore holes over the drain lines are a helpful indicator of system operation

this drain line was no longer working and we could not push our camera past this point

Site Conditions

1. Is there evidence that sewage has backed up into the home?

No.

2. Do trees or tree roots appear to interfere with the system?

Yes, area of concern.
Observations:
• Roots were observed at one drain line

3. Is there evidence of wastewater surfacing?

No.

4. Have any structures been built over the septic system?

No.

Septic Maintenance

•don't dump chemicals such as paints, pesticides, paint thinners, etc. down your drains
•don't let vehicles drive over your drain field (they can crush the drain pipes)
•don't pour coffee grounds, grease and oils into the system.
•the less water you use, the better
•stagger heavy water usage, i.e. showers, clothes washing, bathing.
•don't flush dyed or heavy toilet tissue
•don't flush feminine hygiene products, kleenex, cigarettes, disposable diapers or wipes
•avoid washing quantities of chlorine bleach into the systems
•develop grass over the field to help stabilize the soil
•do not grow trees too near the field, particularly willows (their roots can damage the drain field)

What About Additives

Beware of septic additive products that claim to eliminate the need for septic tank pump-outs. The bacteria that help break down organic matter in your septic tank are naturally occurring; you should not need to add more. Studies consistently show most septic additive products have little effect on septic systems, according to Michael Hoover at the Department of Soil Science, North Carolina State University. Although septic additives do contain biologically based materials like bacteria, enzymes and yeast, they also can contain harmful solvents. Some additives, which claim to degrease your system, may damage your drain field, contaminate your soil and groundwater, and in some states, be illegal.

SEPTIC SYSTEMS

The purpose of a septic system is to create an environment where beneficial bacteria destroy pathogens and take up excess nutrients in wastewater. Wastewater enters the septic tank, which is essentially a storage unit, from a high inlet pipe and exits through a lower outlet pipe. Inside the tank, lightweight solids like fibers, hair and grease float to the top and form the scum layer. Sediments that sink to the bottom comprise the sludge layer. Clearer wastewater drains out into the leach field, also known as the drain field. The longer wastewater remains in the tank (retention time), the greater the chance anything that could potentially clog the drain field will sink or float. To allow, more time for settling, newer septic tanks feature one or more baffles or dividers to slow down the passage of wastewater from inlet to outlet. Naturally occurring anaerobic (oxygenless) bacteria in the tank start the biological breakdown process, but usually do not kill pathogens or remove toxic chemicals.
After the septic tank has settled out solids, clarified wastewater is dispersed through perforated pipes into the soil. In Septic Tank Practices, Peter Warshall says soil is the key to clean water. It acts as a "physical strainer, chemical renovator and a biological recycler" for the wastewater passing through it. Your soil absorption system may be called a leach field, leach bed, soil absorption field, seepage bed or mound, but all act similarly.
Beneath and to the sides of the pipes, a black, jellylike mat or biomat forms. This thin layer of anaerobic organisms helps regulate the flow of wastewater to the soil and preys on potentially pathogenic bacteria, viruses and parasites. It also converts nutrients into a form that can be used by plants or releases nutrients into the atmosphere as gases. The biomat also is a common trouble spot for clogging, as it has low permeability. Failing to pump out your septic system or discharging too much wastewater down the drain can lead to a buildup of organic material, which causes the biomat to grow too thick.
Your leach field may be a series of trenches into which wastewater flows by gravity. If your system is older, your leach field may be buried 5 feet deep. More modern leach fields use drip-irrigation lines, usually buried only inches under the surface to keep wastewater in the zone of microbiological activity and within the root zones of plants. Leach fields work best when the soil surrounding them is well-drained. Don't do anything that could compact the soil, such as driving heavy trucks over it (a lawn mower is fine). Grass planted over your leach field helps keep the soil aerated. Don't plant trees with deep roots, especially invasive species such as willows.
If your property does not have permeable soils or the soil is too permeable for filtering, your leach field may need to be built up with sand to create a mound system. Instead of distributing wastewater underneath the soil surface, wastewater is pumped up onto the mound, where it percolates through a layer of sand before contacting native soil.

PUMPING IT

“A few times a year, I'll be called out to pump a system, and the homeowner doesn't know where it is” Joe a septic contractor says. "After a little probing, we'll find it under their new house addition or a driveway! When you buy a house, locate the septic system. Better yet, check out the whole system before you buy the house."
Some people will tell you that they've never pumped out their systems. In warmer climates and back when we didn't use so much water, toxics and non biodegradable products, this might have worked.

But these days, going long periods without pump-outs is asking for trouble.
After a new home is built, have the system pumped within the next six to 12 months, especially if toxic chemical finishing agents were rinsed into it. Most states offer convenient folders and charts on which you can calculate pumping frequency and keep accurate maintenance records.
A septic system must be pumped out periodically to remove both floating scum and the sludge on the bottom. Failure to do this can result in an expensive repair or even replacement of the entire system. ***Experts recommend pumping your septic tank every two to three years, but when only 1 or 2 people are living in the home it could be 3-5.***

SEPTIC CARE

A properly designed and well-sited system that's also maintained well can be effective and environmentally responsible. We live in different times, and we can't take wastewater management for granted. It's important that we respect our septic systems as the living machinery that they are. It's not hard, but like any living thing, it needs daily awareness and effort. Paying attention to these simple septic tips can significantly extend the life of your system.
Don't Go with the Flow. Prevent large volumes of water from entering your system all at once. A flood of water reduces the time wastewater is retained in the tank, leaving fewer opportunities for solids to settle out and for anaerobic bacteria to start the breakdown process. It also can stir up sediment and flush it into the leach field, causing clogs. Route roof drains and basement drainage-tile water outside of the septic system and away from the leach field. Drain water from pools, hot tubs and roof drains to a ditch or separate dry well. To reduce water consumption further, install faucet aerators and low-flow shower heads, which give more force to less water. Take shorter showers and use shower heads that allow you to easily turn them off when you're lathering up. And shut off water while you're shaving or brushing your teeth. Wash only full loads in the dishwasher, or hand wash dishes with a basin of soapy water and a basin of clear rinse water.
Front-loading washing machines use almost half the water of top-loading washers. Wash only full loads, and adjust load level settings for small loads. Distribute wash loads evenly throughout the week to avoid overloading the system with large volumes of water.
Consider installing a gray -water system to use shower and wash water for irrigation. Your local health agency may permit a system that is properly sized, self-contained and allows no gray-water to come to the surface.
If you have a water softener system, use potassium-ion exchange resins instead of sodium-ion exchange resins. They're a little more expensive, but they are much easier on your system. Recharge your water softener as infrequently as possible to reduce water use, and re-route the water softener recharge water outside the septic system if permitted by your health department. It does not need to be treated, and the salts can damage your leach field.
About 60 percent of the water used in most American homes is used in the bathroom, and most of it goes to flushing toilets. To conserve water and increase the life of your septic system, consider installing a low-flush toilet. Most low flush or ultra-low-flush toilets use 1.6 gallons per flush; some flush with less than a gallon. Don't flush paper towels, feminine sanitary products and other slow -to-degrade materials, like cat litter, in the toilet.

Keep It Clean.

Take a load off your septic system whenever you can by composting kitchen scraps and using biodegradable and non toxic cleaning products. Many toilet bowl cleaners, antibacterial agents and drain cleaners can kill beneficial bacteria in your system. Dispose of all solvents, paints, antifreeze and other chemicals through local recycling and hazardous waste centers. Never let wash water from latex paint on brushes or rollers go down the drain and into the septic system. Use phosphate-free liquid detergents instead of powders, which can clog your leach field, or switch to Liquid soap instead. Although small amounts of chlorine appear to have little effect on septic systems, use hydrogen peroxide-based bleaches to keep this potential carcinogen out of the watershed.

Prescription Drugs.

Some prescription drugs, such as certain heart medications, anti biotic, and chemo therapy drugs, kill the beneficial bacteria in septic tanks. This results in a black inky water with no scum on the surface. Under these circumstance solids do not breakdown and the tank should be pumped more frequently. If your tank has black water with no scum I suggest having the tank pumped and hosed down. The natural biological decomposition of waste should start again.
.

Filter Out Fibers.

Keep fibers and particles out of the septic system. Many of today's fabrics are made of recycled plastic soda bottles and other non-degradable fibers that can clog your leach field. The Septic Protector ($150) attaches to your washing machine drain to remove these fibers. Septic tank filters also can be added to the outlet of your septic tank to keep fibers and particles out of the leach field Much of this is reprinted from Mother Earth News.
For more information about your septic system (complete with graphics) visit: http://www.epa.gov/owm/septic/pubs/homeowner_guide_long.pdf

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http://www.hightechhomeinspections.com/testimonials-2/

Well Location

1. Well Location

Observations:
• The well was approximately 110 feet from the Septic System.

Glossary

Term	Definition
PVC	Polyvinyl chloride, which is used in the manufacture of white plastic pipe typically used for water supply lines.