

PRELIMINARY SOIL & SITE EVALUATION

Bruce Blackwell Tract
9061 B Robert Morgan Rd Prelim
Bullock, NC

Prepared For:

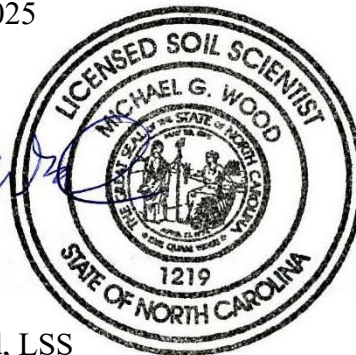
Rob Krebs
eKingdom Estates LLC
187 E. Warm Springs Road, Suite B193
Las Vegas, NV 89119
rob@ekingdomstates.com

Prepared By:



620 Lee Fox Lane
Hillsborough, NC 27278
(919) 417-8027
michael@woodsoilconsultants.com

March 17, 2025



Michael G. Wood, LSS

INTRODUCTION AND SITE DESCRIPTION

A Preliminary Soil & Site Evaluation was performed on the 15.58-acre Bruce Blackwell Tract located at 9061 B Robert Morgan Rd, Bullock, NC (Granville County MAPN: 009000916690). Wood Soil Consultants (WSC) was retained to evaluate the soil and site conditions and identify suitable areas for placement of on-site subsurface wastewater systems for single-family residences. The property was evaluated in accordance with the working copy of North Carolina statutes for waste disposal 15A NCAC 18E, effective September 11, 2024.

The study area is wooded. There are several drainage ways and topographic constraints that have been marked in red on Figure 1 as “Unsuitable Topography.”

INVESTIGATION METHODOLOGY

The field survey was conducted on March 14, 2025, by Michael G. Wood, LSS and Ethan T. Wood. Soil borings were advanced with hand-augers and soil color was determined using a Munsell Soil Color Chart. Observations of the landscape as well as soil properties (depths, texture, structure, soil wetness, restrictive horizons, etc.) were recorded. Soil borings were described per the USDA-NRCS, *Field Book for Describing and Sampling Soils, Version 3.0*. Soil borings and site features are noted in Figure 1.

FINDINGS

Thirteen (13) soil borings were advanced and their placements located on Figure 1. They were placed into one of the following categories:

Provisionally Suitable for Conventional Type Systems. Borings Provisionally Suitable for Conventional Systems include Gravel, Accepted, Alternative, Shallow-Placed, and prefabricated permeable block panel systems. While the particulars and costs between the system types can vary considerably, these are generally the preferred system types. This soil appeared adequate to support a long-term acceptance rate (LTAR) of 0.25-0.275 GPD/sq-ft.

Provisionally Suitable for Low-profile Chamber Systems. Low-Profile Chamber systems are designed similarly to Conventional Type systems but are not allotted any reduction in drainfield size, thus will require more space than the typical Conventional Type systems. These soils require a minimum of 20” of suitable soil when factoring in slope corrections. This soil appeared adequate to support a LTAR of 0.25 GPD/sq-ft.

Provisionally Suitable for Subsurface Drip Systems. Subsurface Drip systems require a minimum of 13” of suitable soil. Soil with a restriction less than 17” will require the septic system to include a pretreatment unit that treats the wastewater to Treatment Standards II. Subsurface Drip systems are substantially more costly to install than Conventional Type and Low-Profile Chamber Systems. LTAR often need to be confirmed via in-situ hydraulic conductivity measurements, but these are expected to support an LTAR of 0.10 GPD/sq-ft.

Unsuitable. Borings were rated as Unsuitable due to a restrictive horizon occurring within 12 inches of the ground surface.

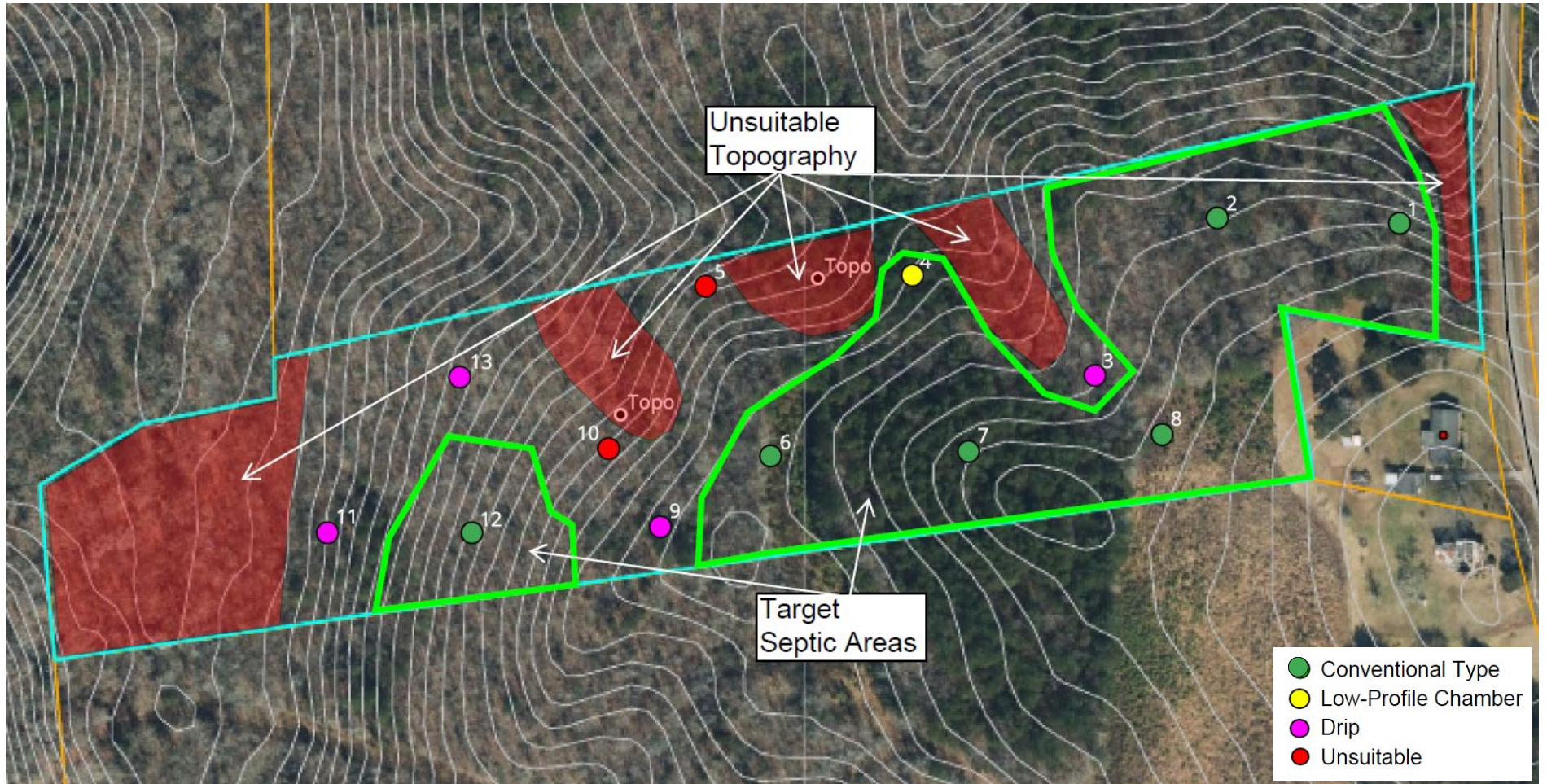
DISCUSSION

Two areas have been outlined in green and noted as Target Septic Areas in Figure 1 that were rated as Suitable for either Conventional Type or Low-Profile Chamber systems. There are other sections that are Suitable for Drip systems. It should be noted that there are some spots within the Target Septic Areas that have microtopographic constraints that are too small to be shown on the map but will need to be considered when laying out the actual drainfields.

CONCLUSION

The findings presented herein represent WSC's professional opinion based on our Preliminary Soil and Site Evaluation and knowledge of the current laws and rules governing on-site wastewater systems in Granville County and North Carolina. Two areas have been identified that should be the primary targets for the drainfields for future improvements.

This Preliminary Soil and Site Evaluation is for general information purposes only. The data collected will not meet the standards of the Engineered Option Permit (EOP) process. Soils naturally change across a landscape and contain many inclusions. As such, attempts to quantify them are not always precise and exact. Due to this inherent variability of soils and the subjectivity when determining limiting factors, there is no guarantee that a regulating authority will agree with the findings of this report.



Bruce Blackwell Tract
B Robert Morgan Road
Bullock, NC 27507



Figure

1

Date: 3/16/25