

MICHAEL A. NORTON, L.S.S.
1972 East U.S. 74 Highway, Hamlet, NC 28345
(910) 582-6607

October 7, 2003

Robert & Sherri Doby
Cypress Road (SR 1103)
Cameron, NC
Harnett County

Dear Mr. and Mrs. Doby:

Per your request, I evaluated your land (2.78 acre lot) on Cypress Road in Harnett County for its suitability to accommodate a septic tank on-site wastewater disposal system. Refer to the site plan attached for an area proposed for an ultra shallow at-grade placed nitrification field using (3) 133' X 3' conventional gravel nitrification trenches. Chamber technology, polystyrene aggregate, or low pressure pipe may be used in this area for innovative or alternative space reduction approvals. These nitrification trenches should be placed in at 12" maximum depths on the downslope side of the trench due to slope limitations. A six inch capping of soil, texture group II or III, should be used on top and seeded and straw thatched for erosion control. An interceptor drain should be used upslope with diversion berm for any lateral or surface water interception and diversion control. The spring head towards the front may be ditched to enhance more water diversion.

Refer to the soil profile sheets for specific soil information. Soil borings 3 through 7 represent this proposed system area with enough space for 100% repair area. This area has loamy sands over sandy loams, sandy clay loams, sandy clays, and clays at various depths. Effective soil depths were found to be at various depths based on limitations to soil wetness mottles (chroma 2 gray or less, Munsell chart), and limitations to massive and/or platy structure, with occasionally marine parent material domination near these depths. An assigned long term acceptance rate (L.T.A.R.) of .3 has been assigned. Refer to the site plan for these soil boring locations. These provisionally suitable borings are marked on the site with blue or blue with yellow surveyor's flagging. The entire system area is marked with pink and black striped flagging. The house site corner stakes are marked with red flagging. An unsuitable boring is marked by pink flagging. Property lines are marked with pink flagging.

Soil borings 8 and 9 represent another area evaluated up near Cypress Road. These soils are also usable, but would require pumping to this area. Also refer to the soil profile sheets for more specific information. A new survey plat is also attached with this submittal.

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Robert & Sherri Doby

Ultimately, it is the jurisdiction of the Harnett County Health Department for final permitting approval, whereas these findings are based solely on my opinion and do not guarantee final approval. If I may be of further assistance, please feel free to call me.

Sincerely,

Michael A. Norton, L.S.S.

Michael A. Norton
Licensed Soil Scientist



attachments

**SITE DATA
SOIL PROFILES**

Owner Robert + Sherri Doby
 Location Cypress Rd. (SR1103)
 Subdivision _____
 Lot/Section _____
 Size 2.78 Ac.

Morphic Descrip. 10/7/03
Upper Coastal Plain
Harnett County, N.C.

NOTES:

Assigned L.T.A.R. = 13

| | Horizon Depth | Color (Munsell) | Texture (USDA) | Structure (USDA) | Consist. (USDA) | Mineralogy (USDA) | Comments |
|--------------------|---------------|------------------|----------------|---------------------------------------|-----------------|-------------------|-------------|
| Profile 3 | 0-20" | | LS | gr | vfr ns np | | |
| Landscape | 20"-29" | | SC | 1m, sbk | fr-fi s p | sexp | |
| L | 29"-36" | | SC | 1c, sbk | fi s p | sexp | |
| ~9-10% slope | 36"+ | | SC | m | | sexp | top of p.m. |
| Profile 4 | 0-18" | | LS | gr | vfr ns np | | |
| Landscape | 18"-20" | | SL | 1f, sbk | vfr ss sp | | |
| L | 20"-23" | Mottles 10YR7/2 | SCL | 1f, m, sbk | fr s p | sexp | |
| ~7-8% slope | 23"-27" | at 21" | SC- | 1m, sbk | fi s p | sexp | |
| | 27"+ | | SC | m parting to pl parting to 1f, m, sbk | fi s p | sexp | |
| Profile 5 | 0-18" | | LS | gr | vfr ns np | | |
| Landscape | 18"-28" | | SL | 1f, sbk | vfr ss sp | | |
| L - F ₂ | 28"-31" | | SCL | 1f, m, sbk | fr ss sp | sexp | |
| 5-6% slope | 31"-40" | Mottles 10YR7/2 | C | 1m, sbk | fi s p | sexp | |
| | 40"+ | at 40" | C | m | | | |
| Profile 6 | 0-17" | | LS | gr | vfr ns np | | |
| Landscape | 17"-20" | | SL | 1f, sbk | fr ss sp | | |
| L | 20"-25" | Mottles 2.5YR7/4 | SC | 1m, sbk | fi s p | sexp | |
| ~10% slope | 25"-28" | at 25" | SC | 1c, sbk | fi s p | sexp | |
| | 28"+ | | SC | m parting to pl | | | |

NOTES:

**SITE DATA
SOIL PROFILES**

Geomorphic Descrip.
Upper Coastal Plain 10/7/03
Harnett County, N.C.

Owner Robert + Sherri Doby
Location Cypress Rd. (SR1103)
Subdivision _____
Lot/Section _____
Size 2.78 Ac.

NOTES:

Assigned L.T.A.R. = .3

| | Horizon Depth | Color (Munsell) | Texture (USDA) | Structure (USDA) | Consist. (USDA) | Mineralogy (USDA) | Comments |
|-----------|------------------|---------------------|-------------------|---------------------|--------------------|----------------------|----------|
| Profile 7 | 0-16" | | LS | | | | |
| 1scape | 16"-34" | | SC | gr | vfr | ns ap | |
| L | 34"+ | | C | 1m, c56k | fi | s p sexp | |
| %slope | | 10YR 7/2 Mottles | | m | | | p.m. |
| Profile 8 | 0-10" | | LS | | | | |
| 1scape | 10"-35" | | SL | gr | vfr | ns ap | |
| L | 35"-48" | | LS | 1f, 56k | vfr | ns ap | |
| %slope | | | | gr | vfr | ns ap | |
| Profile 9 | 0-25" | | LS | | | | |
| 1scape | 25"-30" | | SC | gr | vfr | ns ap | |
| L | 30"+ | | SC | 1f, m56k | fi | s p sexp | |
| %slope | | 10YR 7/2 Mottles | | m | | | p.m. |
| Profile | | | | | | | |
| 1scape | | | | | | | |
| %slope | | | | | | | |

8:

