DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #: 4753-56-9373
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Rhonda Thompson — APPLICATION DATE 3/10/11
ADDRESS: 124 Dellwood — DATE EVALUATED: 3/14/11
PROPOSED FACILITY: 4BR — PROPOSED DESIGN FLOW (.1949): 480 — PROPERTY SIZE: 2 Ac
LOCATION OF SITE: 124 Dellwood — PROPERTY RECORDED: n/a
WATER SUPPLY: (•) Private • Public • Well • Spring • Other
EVALUATION METHOD: (•) Auger Boring • Pit • Cut — TYPE OF WASTEWATER: (•) Sewage • Industrial Process • Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	12%	0-30	Fill		n/a	n/a	n/a	n/a	U
		30-48	C ABK	VFR P					
2	10%	0-3	L		n/a	48	n/a	n/a	.3 PS
		3-19	CL SBK	SS SP					
		19-48	C SBK	SS SP					
3	10%	0-4	L	SS SP	n/a	48"	n/a	n/a	.25 PS
		4-23	CL SBK	SS SP					
		23-48	C ABK	S SP					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	~~480~~ PS	~~480~~ PS
System Type(s)	III	III
Site LTAR	.25	.25

OTHER FACTORS (.1946): none
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: James Stewart
OTHER(S) PRESENT: Tim Higgins

COMMENTS:

LEGEND

use the following standard abbreviations

LANDSCAPE POSITION	GROUP	SOIL TEXTURE	CONVENTIONAL .1955 LTAR*	LPP .1957 LTAR*	MINERALOGY/ CONSISTENCE	STRUCTURE
CC (Concave Slope)	I	S (Sand)	1.2 - 0.8	0.6 - 0.4	NEXP (Non-expansive)	G (Single Grain)
CV (Convex Slope)		LS (Loamy Sand)			SEXP (Slightly Expansive)	M (Massive)
D (Drainage Way)					EXP (Expansive)	CR (Crumb)
DS (Debris Slump)	II	SL (Sandy Loam)	0.8 - 0.6	0.4 - 0.3		GR (Granular)
FP (Flood Plain)		L (Loam)				SBK (Subangular Blocky)
FS (Foot Slope)						ABK (Angular Blocky)
H (Head Slope)	III	Si (Silt)	0.6 - 0.3	0.3 - 0.15		PL (Platy)
L (Linear Slope)		SiCL (Silty Clay Loam)				PR (Prismatic)
N (Nose Slope)		CL (Clay Loam)				
R (Ridge)		SCL (Sandy Clay Loam)			MOIST	WET
S (Shoulder Slope)		SiL (Silt Loam)				
T (Terrace)					VFR (Very Friable)	NS (Non-sticky)
	IV	SC (Sandy Clay)	0.4 - 0.1	0.2 - 0.05	FR (Friable)	SS (Slightly Sticky)
		SiC (Silty Clay)			FI (Firm)	S (Sticky)
		C (Clay)			VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None	None	EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

*Adjust LTAR due to depth, consistence, structure, soil wetness, landscape, position, wastewater flow and quality.

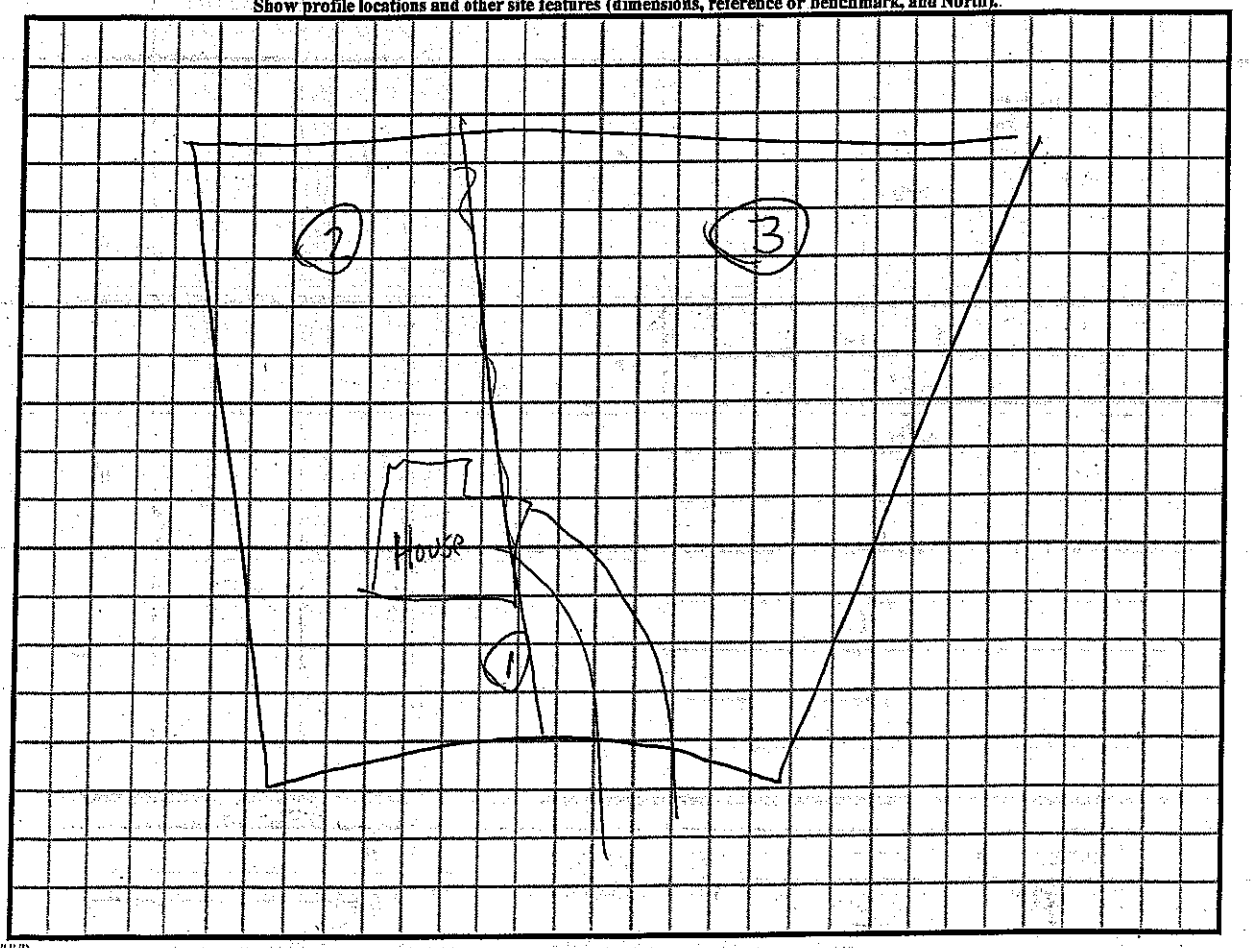
NOTES

HORIZON DEPTH	In inches below natural soil surface
DEPTH OF FILL	In inches from land surface
RESTRICTIVE HORIZON	Thickness and depth from land surface
SAPROLITE	S(suitable) or U(unsuitable)
SOIL WETNESS	Inches from land surface to free water or inches from land surface to soil colors with chroma 2 or less - record Munsell color chip designation
CLASSIFICATION	S (Suitable), PS (Provisionally Suitable), or U (Unsuitable)

Evaluation of saprolite shall be by pits.

Long-term Acceptance Rate (LTAR): gal/day/ft^2

Show profile locations and other site features (dimensions, reference or benchmark, and North).



DENR (######)
Review (#####)

Pump Design Sheet **For:** Rhonda Thompson **By:** James Stewart

System Length (linear ft)	480		
# of Taps	6	Manifold Length (in)	42
Manifold Size (in)	4	Flow per Tap (gpm)	5.48
Tap Type (sch 40 or 80)	80	Total Flow (gpm)	32.88
Tap Size (in)	0.5	Friction Loss (ft)	2.67
Tap Length (in)	12	Total Dynamic Head (ft)	37.67
Supply Line Size (in)	2		
Supply Line Length (ft)	90		
Pressure Head (ft)	2		
Elevation Head (ft)	25		
Septic Tank Size (gal)	1000		

When choosing a pump for this system, you will need a pump that can deliver:

32.88 GPM against **37.67** FT of Total Dynamic Head

Dose Volume (gal)	234
Pump Run Time (min)	7.12
Tank Drawdown (in)	11.14