DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

4736-85-2257

Sheet 2 of
PROPERTY ID #:
COUNTY: Ire

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Jack B. Borders APPLICANT: SAME
ADDRESS: 188 KNOX FARM RD 28625 APPLICATION DATE: 12-10-03 DATE EVALUATED: 1/20/04
PROPOSED FACILITY: 3 BR PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: .48 1/21/04
LOCATION OF SITE: 21N (L) FT DOBBS (R) COOPER (L) CLEARVIEW (R) FAIRDALE PROPERTY RECORDED: YES
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other Willowbrook Lot #32 ON (R)
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	PROFIL CLASS & LTAR
1	H 3%	0-24	WK SBK SCL	FR S/P SEXP	—	60	10% mica @ C" PS	—	PS .25
		24-46	MO SBK/ABK C	FI S/P SEXP					
		46-60	WK SBK SCL	FR S/P SEXP					
		60-66	SL M SAP	crushes to SL					
2	R 5%	0-5	WK SBK SCL	FR S/P SEXP	—	15	UN	—	UN N/A
		5-18	MO SBK SCL	PL S/P SEXP					
		18-60	SL M SAP	crushes to SCL					
3	H 5%	0-5	WK SBK SCL	FR S/P SEXP	—	20	hard lenses of weathered bedrock in Bt	—	UN N/A
		5-20	SL M C	VFI VS/VP EXP					
		20-45	SL M SAP1	crushes to SCL					
		45-70	SL M SAP2	crushes to L					
4	H 2%	0-7	WK SBK SCL	FR S/P SEXP	—	28	PS hard lenses of Wea Bt	—	PS .25
		7-28	MO SBK/ABK C+SAP	FI S/P SEXP					
		28-48	SL M SAP	crushes to SL					
		48-62	SL M Cr	weathered bedrock					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

LEGEND

use the following standard abbreviations

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

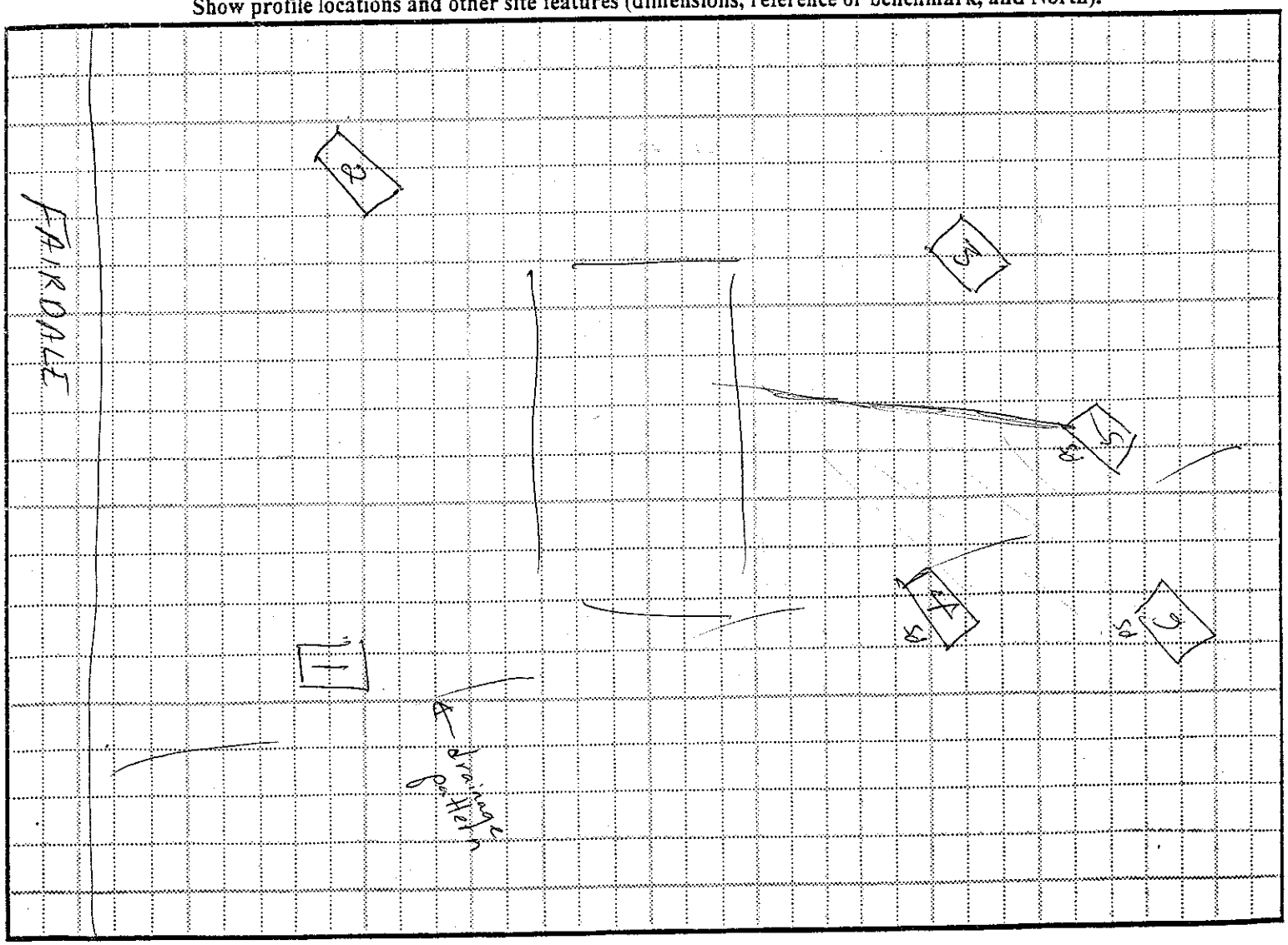
NOTES

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/ft²

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



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 3 of ___

4736-85-2257 PROPERTY ID #: ___

COUNTY: Ire

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: JACK B. BORDERS APPLICATION DATE 12-10-03

ADDRESS: 188 KNOX FARM RD. STATESVILLE 28625 DATE EVALUATED: 1/23/04

PROPOSED FACILITY: 3 BR PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: .48

LOCATION OF SITE: 21 N (L) FT DOBBS (R) COOPER (L) CLEARVIEW (R) FAIRVALE PROPERTY RECORDED: YES

WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other WILLOWBROOK LOT 32 on (R)

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	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1 5	L 4%	0-8	WK SBK SCL	VFR SS/SP SEXP	—	45	PS	—	PS .25
		8-28	MO SBK/ABK C	FI S/P SEXP					
		28-45	WK SBK SCL	FR S/P SEXP					
		45-60	SL M SAP	crush to SL					
2 6	H 2%	0-2	WK GR SL	VFR SS/SP SEXP	—	10	PS	—	PS .3
		2-10	MO SBK C	FR S/P SEXP					
		10-66	SL M SAP	crush to SL					
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): ___

SITE CLASSIFICATION (.1948): ___

EVALUATED BY: Chris Sloerrill

OTHER(S) PRESENT: Doug Fox - backhoe operator

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	SCL (Sandy Clay Loam)	0.6 - 0.3	0.3 - 0.15		PL (Platy)
L (Linear Slope)		SiL (Silt Loam)				PR (Prismatic)
N (Nose Slope)		CL (Clay Loam)				
R (Ridge)		SiCL (Silty Clay Loam)			**MOIST**	**WET**
S (Shoulder Slope)		Si (Silt)				
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		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.**

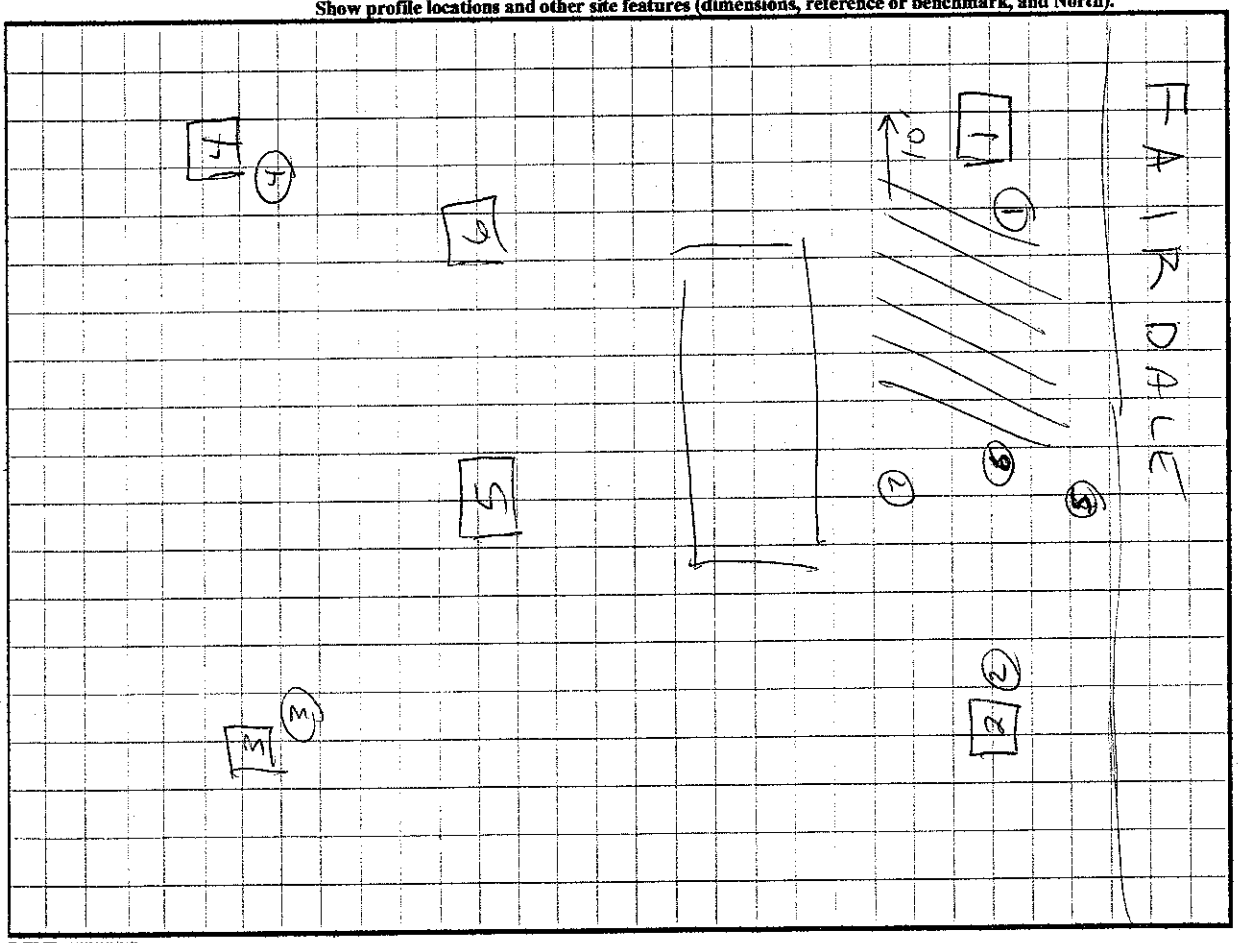
NOTES

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).



2/3/04

1 0-3
3-10
10+

2 0-3
3-28
28+

3 0-3
3-24
24+

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

DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 4 of
4736-85-2257 PROPERTY ID #:
COUNTY: Ire

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: JACK BORDERS APPLICANT: SAME
ADDRESS: 188 KNOX FARM RD. 28625 APPLICATION DATE: 12-10-03 DATE EVALUATED: 2-3-04
PROPOSED FACILITY: 3 BR PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: .48
LOCATION OF SITE: 21 N ⓒ FT. DOBBS Ⓡ COOPER Ⓛ CLEARVIEW Ⓡ FAIRDALE PROPERTY RECORDED: YES
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other ON Ⓡ
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	PROFIL. CLASS & LTAR
1 5	L	0-3	WK SBK SCL	FR S/P SEXP	—	10	N/E	—	UN N/A
		3-10	MO SBK/ABKC+SAP	FI S/P SEXP					
		10+	SL M SAP	—					
2 6	L	0-3	WK SBK SCL	FR S/P SEXP	—	28	N/E	—	PS .125
		3-28	MO SBK/ABKC+SAP	FI S/P SEXP					
		28+	SL M SAP	—					
3 1	L	0-3	WK SBK SCL	FR S/P SEXP	—	24	N/E	—	PS .125
		3-24	MO SBK/ABKC+SAP	FI S/P SEXP					
		24+	SL M SAP	—					
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:

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)		SLC (Silt Loam Clay)				
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)
					VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None		EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

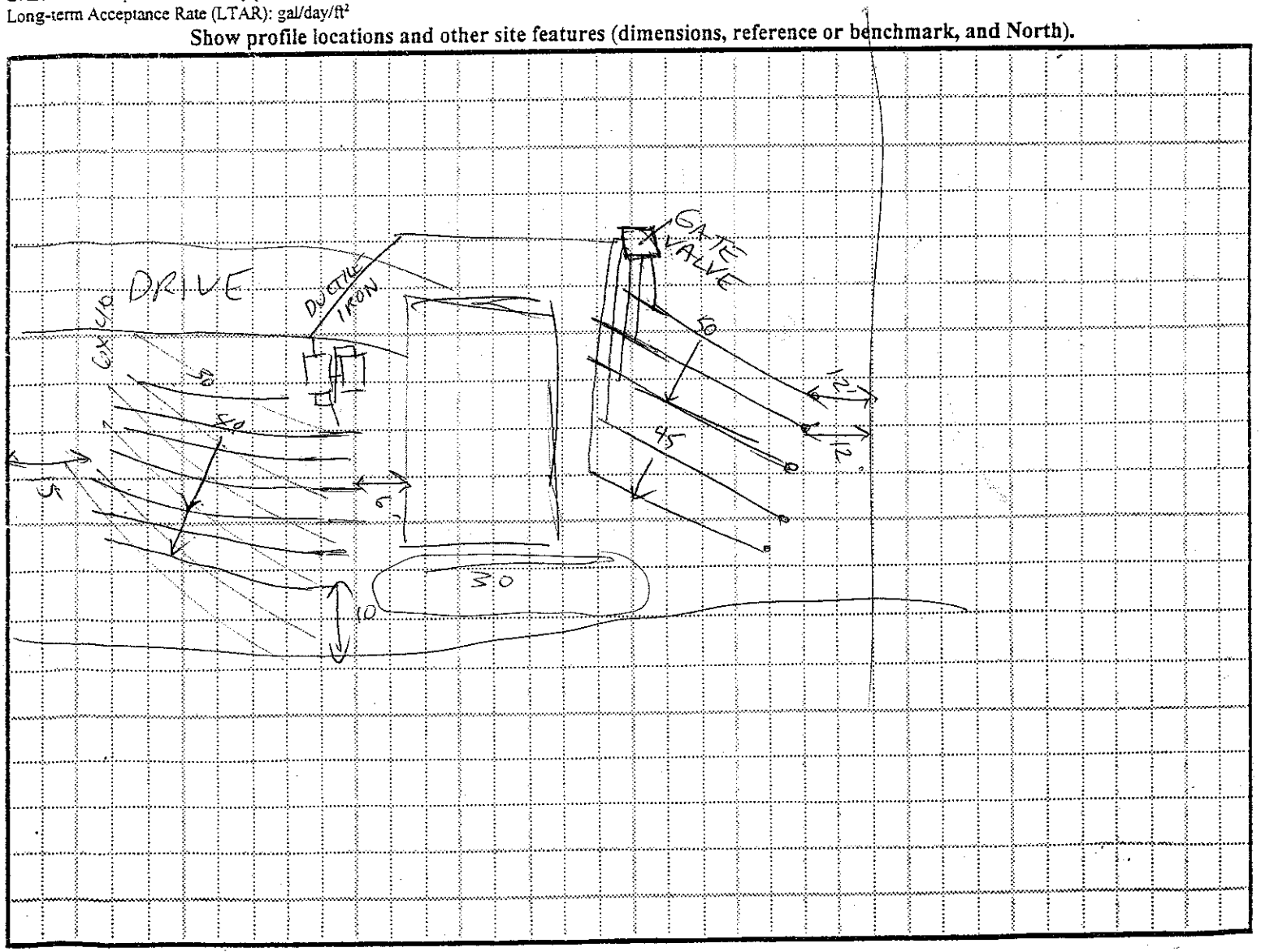
NOTES

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/ft²

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



DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

4736-85-2257

Sheet 1 of 1
PROPERTY ID #:
COUNTY: Ire

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Jack B Borders APPLICANT: Jack B Borders
ADDRESS: 188 Knox Farm Rd Statesville 28625 APPLICATION DATE: 12-10-03 DATE EVALUATED: 1/16/04
PROPOSED FACILITY: 3br PROPOSED DESIGN FLOW (.1949): 360 PROPERTY SIZE: .48
LOCATION OF SITE: US 21 N (L) Ft Dobbs (R) Cooper Farm (L) Clearview PROPERTY RECORDED: YES
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other (R) Fairdale Prop on right Lot # 32
EVALUATION METHOD: ☑ Auger Boring ☐ Pit ☐ Cut
TYPE OF WASTEWATER: ☑ Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.1941) CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFIL CLASS & LTAR
1	H 5%	0-21	WK SBK SCL	FR S/P SEXP	10YR 3/1 @ 44"	>48	10% mica 20% mica	—	PS .2
		21-34	MO SBK/ABK C	FI S/P SEXP					
		34-48	MO SBK/ABK C+SAP	FI S/P SEXP					
2	R 9%	0-3	WK SBK SCL	FR S/P SEXP	—	10"	N/E	—	PIT
		3-10	MO SBK/ABK C	FI S/P SEXP					
		10+	SL M SAP	—					
3	H 7%	0-20	WK SBK SCL	FR S/P SEXP	—	30"	N/E	—	PS .3
		20-30	MO SBK C+SAP	FR S/P SEXP					
		30+	SL M SAP	—					
4	H 3%	0-6	WK SBK SCL	FR S/P SEXP	—	17"	N/E	—	PIT
		6-17	MO SBK C+SAP	FI S/P SEXP					
		17+	SL M SAP	—					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946): Backhoe pits
SITE CLASSIFICATION (.1948):

EVALUATED BY: Chris Steinell
OTHER(S) PRESENT: Jack Borders

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)
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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)		SLC (Silt Loam Clay)				
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)
					VFI (Very Firm v. Very Sticky)	VS (Very Sticky)
		O (Organic)	None		EFI (Extremely Firm)	NP (Non-plastic)
						SP (Slightly Plastic)
						P (Plastic)
						VP (Very Plastic)

NOTES

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DEPTH OF FILL	In inches from land surface
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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).

