S&ME, INC.
SITE/SOIL EVALUATION

Patty Lopez

Project No. 1588-11-004 Phone No. _____ Date: 2-3-11 1-26-11

Location 255 Grassmere Pin _____ County: Iredell Property Size 0.70 ac

Proposed Facility: 3bd → 4bd Water Supply: On-Site Well ☒ Evaluation: Auger Boring ☒

Community ☐ Pit ☐

Described By: Paul Pennington Rev. by Marvin Dobson Public ☐ Cut ☐

Weather: cool Antecedent Moisture moist Surface Water: Lake Norman

FACTORS	PROFILE 1	PROFILE 2	PROFILE 3	PROFILE 4
Landscape Position %	L ~ 3%	L ~ 10%	L ~ 3-5%	L ~ 15%
Horizon Depth I	0 - 6	0 - 2	0 - 6	0 - 5
Color Munsell	br	10yr 6/1	br	br
Texture	scl	fsl	scl	scl
Structure	gr		wsbk	wsbk
Consistence	fr		fr ss/sp	fr ss/sp
Boundary				
Horizon Depth II	6 - 27	2 - 12	6 - 24	5 - 23
Color – Munsell	yel	br	yel	yel
Texture	c	scl	c	c
Mottles				
Structure	mfcrbk	wsbk	mfsbk	mfcsbk
Consistence	fr s/sp	fr ss/sp	fr ss/sp	fr s/sp
Boundary				
Horizon Depth III	27 - 48	12 - 24	24 - 34	23 - 47
Color – Munsell	yel red	yel	yel	yel
Texture	cl	c	c - cl	cl
Mottles	f-c sap : cl		m-w sap : cl	
Structure	wsbk	mfsbk	fr s/sp	wsbk
Consistence	fr ss/sp	fr ss/sp	fr sap : cl	fr ss/sp
Boundary				
Horizon Depth IV		24 - 42	34 - 47	
Color – Munsell		yel red	yel	
Texture		c - cl	cl	
Mottles		c sap : cl	c sap : cl	
Structure		wsbk	wsbk	
Consistence		fr ss/sp	fr ss/sp	
		42 +		
Boundary		sap		
Soil Wetness				
Restrictive Horizon		42	47	
Saprolite				
LTAR	.3-.4	.3	.3	.3
Classification	PS	PS	PS	PS
	OK	OK	OK	OK

MD MD MD MD

LEGEND

LANDSCAPE POSITION

R	Ridge Interfluve
S	Shoulder
L	Linear Slope
S	Foot Slope
N	Nose Slope
H	Head Slope
Cc	Concave Slope
Cv	Convex Slope
T	Terrace
P	Flood Plain

TEXTURE

s	sand
ls	loamy sand
sl	sandy loam
l	loam
si	silt
sil	silt loam
sicl	silty clay loam
cl	clay loam
scl	sandy clay loam
sc	sandy clay
sic	silty clay
c	clay

CONSISTENCE WET

Ns	non-sticky
Ss	slightly sticky
S	sticky
Vs	very sticky

Np	non-plastic
Sp	slightly plastic
P	plastic
Vp	very plastic

MOIST

vfr	Very friable
fr	friable
fi	firm
vfi	Very firm

STRUCTURE

sg	single grain
m	massive
cr	crumb
gr	granular
sab	subangular blocky
ab	angular blocky
pl	platy
pr	prismatic

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Community ☐ Pit ☐
Described By: _____ Public ☐ Cut ☐
Weather: _____ Antecedent Moisture _____ Surface Water: _____

FACTORS	PROFILE	PROFILE	PROFILE	PROFILE
Landscape Position %	S L - 15%			
Horizon Depth I	0 - 16			
Color Munsell				
Texture	sl cl			
Structure				
Consistence	SHS			
	S: 0			
Boundary				
Horizon Depth II	16 - 44			
Color – Munsell				
Texture	C			
Mottles	f sms 1 ml			
Structure	m sbk			
Consistence	S, St			
Boundary				
Horizon Depth III				
Color – Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
Horizon Depth IV				
Color – Munsell				
Texture				
Mottles				
Structure				
Consistence				
Boundary				
Soil Wetness				
Restrictive Horizon				
Saprolite				
LTAR	.3			
Classification	Ps			

OK

LEGEND

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255 GRASSHOPPER 1/2

PRESSURES MANIFOLD CALCS.

* 4 lines @ 50' each
* Adding 70' (2 @ 35' w/ 1 Flow Divider)

1/2" SCH 40 TAP @ 2' HEAD = 7.11 gpm

3/4" SCH 80 TAP @ 2' HEAD = 10.1 gpm

$\frac{50'}{70'} = 0.714$

$\frac{7.11 \text{ gpm}}{10.1 \text{ gpm}} = 0.704$

NEAR = RATIO

$\frac{7.11 \text{ gpm}}{50' \text{ line}} = 0.142 \text{ gpm/ft}$

$\frac{10.1 \text{ gpm}}{70' \text{ line}} = 0.144 \text{ gpm/ft line}$

PRESSURE MANIFOLD FOR EXPANDED SYSTEM

1. DOES EACH EXISTING 50' LINE WITH ONE 1/2 INCH SCH 40 TAP @ 2' HEAD RISERS

2. DOES 2 NEW 35' LINES W/ ONE 3/4 INCH SCH 80 TAP @ 2' HEAD RISER AND ONE FLOW DIVIDER