Appendix A

Deed Description

COETTI OF OHAVE

THIS LIED made this /5 day of June, 1942, by said between Sarah Crow, widow of Durham County, North Carolina, Mamis Crow Rogan, and husband, A. B. Bogan, Durham County, Youth Carolina, and Dorn Crow Ford and husband Murray W. Fort, of Washington County, Pennsylvenia, Justise of the first part amistra University of Borth Carolina, a Plate aducational corporation, with it principal office in Chapel Field Morth Carolina, party of the second part

WIINESSEIM

That the parties of the first part for and in complete ton of the sun of Two Thousand Forty (\$2,000.00) Dollars to them in hand paid by the party of the second part, the receipt of which is hereby acknowledged, have bergained and sold and by these presents do grant, bargain, sell, and coursy to the said University of North Carolina, its successors and has igns a cortain tract or parcel of land it that al Hill Township, Orange County, State of Worth Carolina, adjoining the lands of Em Crow and The University of North Carolina, bounded and described as follows: BEGINIES at en iron stein and pointers; mich enti chare is located 10 fee: North of a coment marker located on the University Airport tract (formerly continued line), which as a remner larger is also H 53 deg 45 Bast 412 feet from a star set in the property line of the Orange Church Road, and running thence a division line between Walter Crow and the parties of the first part North 88 deg West 1500 feet to a stake and pointers in the Sarah Crow and H. E. Williams lines; running thence with the said merked line South 4 degrees 25 min West 1750 feet to Estaxe and rock oils thence South 85 deg 30 min Bast 570 feet to a cement marker; thence North 45 deg 30 min Zast 355 feet to a stake in an old road; thence North 57 degrees 30 min Zest 734 feet to a stars and large white oak pointer on the Northwest edge of University Airport Bunvay Ro 3; thence North 9 deg East 1039 feet to the BEGINNING, containing 48 acres more or less.

Being the same land conveyed by Sarah Crow (with reserva-

Teling the same land conveyed by Sarah Crow (with reastwanton of life essie) to how Cow Ford and Minds Craffill Bogan by deed detel November 4, 1935, and recorded in Book No. 104, Page 15 of the Records of Deeds of Orange County, North Caroline

It is the intention of Sarah Crow to convey by this deed all her right title and inverseting the residue of the original tract conveyed to Aaron Crow and Sarah Crow, his wife, by James seed, with and brother by deed dated October 1, 1898, subject only to the deeds to parts of said original tract previously conveyed by the said Sarah Crow and husband, or by the said Sarah Crow personally.

TO HAVE AND TO BOID the aforesaid tract or parcel of land with all privileges and appurtanences thereto belonging to the University of

criorange county actested ovice for correct. Let the instrument with the cent is cates on the second

Witness my hand this-29th day of June 1942.

Clerk Superlaps our be

ORTHEGAROLITAE TORANGE COUNTY

The Loregoing certificate of Johns . Termichie & Motes This of agaington County, Pennsylven are pater to the

OLETTE Seaf 12 adjudged to be corrected services in the

Ith the certilicated he registened.

Witness my hand this 29th day of June 1942.

A.W. Kewlow Clerk-Superior Yourta

Son said parties of the first par for themselves and their helrs, executors and enables trators coverant the the said party of the second party its send party and assigns that they are selled of said premises in fee and have a right to convey in fee and party that they dame are free and poleer from all ensure ranges and they do hereby full erer warrent ave vill forever defend the sale little activities are sales

II WITH BE WHATEOF the said par mee of the first part Ears hereunto set their hands and seals the tar and year first above will

Mithesios to Sarah Urov's signature	
	Dora Crow Ford Some (ON
	Mucray W. Gord 1 (B.W.
	Sarah K. Crow (BU)
	A.B. Bogan (MA)
SCHICS 1941	Momic Boggay (SEAL
STATE OF HORTH CAROLINA	
COUNTY OF THE	
COUNTY OF THEM STANDARD TO THE SECOND COUNTY	

I, Kenneth M. Jowes ... notary Public in and for the above County and State, do hereby certify that Sarah Crow, widow, porsonally appeared before me this day and acknowledged the due execution of the foregoing dead,

		E-67 this 2/	der-of
June,	und and Hotarial	Tarabas and Areas and	5-6-7
		W. T. M	

My Commission Expires: 4/16-1944

THE WILLIAM WITH VONE STATE

Service Control of the Control

COLOSSIANISTES

MANAGE AND LOSSOCIONES AND AND THE REST

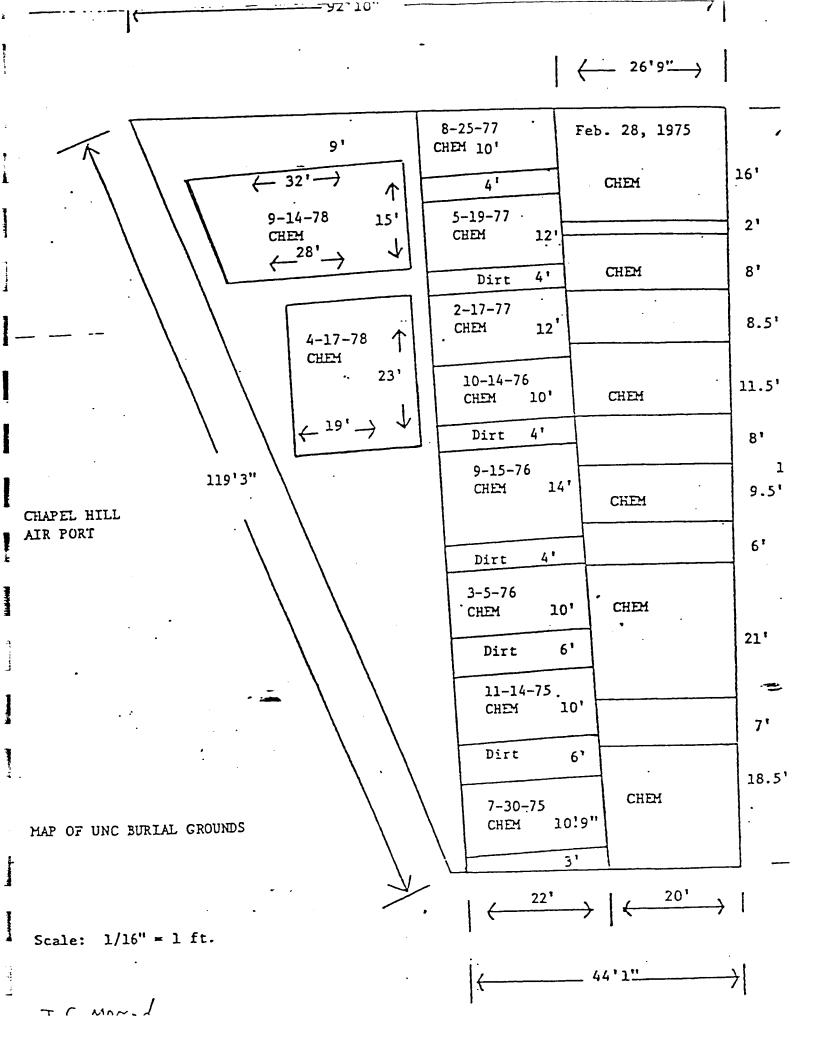
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Appendix B

Composite Map of Horace Williams Airport Properties and Acquisition Dates

Appendix C

Chemical Burial Locations and List of Potentially Disposed Chemicals



EXISTING CHEMICAL V DISPOSAL AREA Q. ITR Acra PROPOSED ADDITION TO CHEMICAL WASTE DISPOSAL AREA The solution of the solution o 0 289 Acre GERAGHTY & MILLER, INC.

· CHEMICAL WASTES COLLECTED FROM LABORATORIES ON CAMPUS FOR DISPOSAL

Organic waste (unknown) Chloride color reagent (containing mercury) Acetic acid Nitric acid Sulfuric acid Hydrochloric acid Formaldehyde Inorganic waste (unknown) Acctone Ascarite (solid) Trimethyl chlorosilane Potassium hydroxide -Chloroform Butyl alcohol Echer Bromohexame Iodine waste Dyes Acetic anhydride Propionic acid N-N-Dimethyl formamide Butyl ether Carbon tetrachloride Hydrozine monohydrate Phosphorus pentoxide (solid) Ethyl acetate Benzenc Xylene Sodium chloride irrigation Mercuric cyanide Santovac 5 (vacuum pump fluid) Isobutyl alcohol . Toluene Cyclohexane Sodium sulfate Sodium bisulfite Barium hydroxide Sodium borate codium bismuthate Polyethylene glycol, 20,000 Iodomethane Calcium chloride E zmino-n-caproic acid Hydrozine hydrate Mercury (atomic absorption standard) 1,000 ppm 2.4 Dichlorophenol Silver waste 2-Proponol Vacuum pump oil

Butanol lithium acetate

? : 1 ! ! Benzaldeliyde Methanol N-Heptane iso-propylamine Sodium borohydride Oxalic acid Ammonium hydroxide 1,2 Dichloro ethane Ethyl hydrogen peroxide Methyzene chloride Phosphorus pentoxide Mercuric nitrate Perchloric acid 70% Potassium cyanide Chromic acid Paladium Bromine water Pyridine Arsenic (atomic absorption standard) 1,000 ppm Bun (blood serum, mercury) Hexane Pextane Dimethyl sulfoxide Lithium acetate Gl.vcerin Sodium dichromate 2-merpato ethanol Silicone Osmium tetroxide Aniline Picric acid Bromobenzene Biofluor

Hydroxide of hyamine

Propane fuel cans ("empty")

Choline bicarbonate

Propylene oxide

Ethylene glycol

1,4 Dioxane

Appendix D

Soil Boring Logs

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Environmental Services

Boring/M	Vell_MW-6	P	roject/No	20239.001.005 Page 1 of 1
Site	Chapel Hi	II, NC		Drilling 4-11-95/15:05
Total Dep	pth Drille	27 d neter _{211 v}	feet F	Hole Diameterinches
				Sampling Intervalfeet
Land-Su	rface Ele	V	feet	☐ Surveyed ☐ Estimated Datum
	Fluid Use	ed		Drilling MethodBA/Mobile Drill B-57
Drilling Contract	or McCall	Bros.		DrillerHelper
Prepared By	d _{G. Calvi}	in Whitfi	eld	Hammer Hammer Weight Dropinches
Sample/C (feet below From	Core Depth land surface)	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
				Clay (90%); sand, fine to very fine (10%); orange to gray; dry; no odor
0	2			
				(OVA = 3.5 ppms)
2	4			Clay (90%); sand, fine (10%); orange to tan, dry, no odor (OVA - 60 ppms)
4	6			Same as 2' to 4'; orange to gray
6	8			Same as 4' to 6' (OVA = 36 ppms)
8	10			Same as 4' to 6' then at 9' bls becomes clay (70%); silt (30%); reddish
				brown; moist; no odor (OVA = 36 ppms); note also contains black organic
				material
10	12		•	Same as 9' to 10' then at 10.5 becomes clay (60%; sand, fine to medium
				grained (40%); brown with black organic staining; dry; no odor
				(OVA = 10.2 ppms)
12	14			Same as 10' to 12' (OVA = 50 ppms)
14	16			Clay (80%); sand, fine grained (20%); brown with black organic staining;
				damp; no odor (OVA = 30 ppms)
17				Water
16	18			Sand, fine to medium grained (70%); clay (30%); red brown; wet; no odor
18	20			Same as 16' to 18'
20	20.5	.5		Same, fine to medium grained (75%); clay (25%); brown to tan to olive
	, 20.5			green; dry; some odor; refusal on spoon
	1			
22		.1	1	Rock



Boring/Wel	MW-7	Pı	roject/No	NC0239.001				Pagec	
Site Location _	UNC-	Chapel H	ill		Drilling Started		Dril Co	ling mpleted <u>4-21-95</u>	<u> </u>
Total Depti	n Drilled	d <u>48</u>		Hole Diameter_		ly	pe of Sample/ oring Device		
Length and of Coring	d Diam Device	eter					_Sampling Inter	val	feet
Land-Surfa					☐ Estima				
Drilling Contractor	McCa	ill Broth	ers			_ Driller	B. Williamson	HelperJim_	
Prepared By	Calvi	n Whitfie	eld				Hammer _Weight	Drop	inches
Sample/Con (feet below lan	e Depth		Time/Hydrauli Pressure or Blows per 6 inches	ic			/Core Description		
25	29			Rock.					
29				Fracture.					
29	32			Sand (100%)	Lt. Brown; Dry	•			
32	46			Rock.					
46				Fracture (Wa	ter).				
48				Total Depth.					
					-				
						-			
	-								

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A S MILLER, INC.
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Boriog M	MW-8	8 (1st) _{Pr}	niect/No.	NC0239.001.005 Page 1 of 1
Site	Chapel	Hill, NC		Drilling 4-12-95/07:40 Drilling 4-12-95/08:40 Started Completed
Total Dep	oth Drilled	d12	feet H	Hole Diameterinches Coring Device
Length a of Coring	nd Diam Device	eter 2"	x 2'	Sampling Interval feet
Land-Sur	face Elev	V	feet	☐ Surveyed ☐ Estimated Datum
Drilling F Drilling				Drilling Method
Contracto	or			Driller Helper Hammer Hammer
Prepared By	G. Ca	lvin Whit	field	WeightDropinches
Sample/C (feet below I From	ore Depth and surface)	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	Sample/Core Description
0	2			Clay (60%); leaves and roots, trash (40%); black to brown to gray;
		·		damp; decomposing odor
2	4			Same as o' to 2'
4	6			Clay (70%); silt (10%); trash and debris (20%); brown to tan; dry;
				methane odor
6	8			Clay (60%); trash and debris (40%); brown to tan; dry; methane odor
8	10			No. recovery
12				Refusal
	-			
	<u> </u>			



Borina/W	ellmw-8	(2nd) Pr	oject/No	NC0239.001.005				Page		
Site Location	Chapel	Hill, NC				Orilling 4-1 Started 4-1	2-95/09:40	Drilling Completed	4-12-95	
			feet	Hole Diameter_	8-1/2	inches	Type of Samp Coring Device	ole/ e		
Length a of Coring	nd Diam Device	neter ———					Sampling	Interval		feet
Land-Sur	face Ele	V	feet	☐ Surveyed		Estimated	Datum			
Drilling F	luid Use	ed				<u> </u>	Drilling Me	ethod		
Drilling Contracto	or <u>McCa</u>	ll Bros.				Dri	iller	Helpe	r	
Prepared By	G. Cal	vin Whitf	ield				Hammer Weight	Har Dro	mmer p	inches
Sample/Co (feet below is	ore Depth		Time/Hydraulic Pressure or Blows per 6 inches				mple/Core Description			
0	11	·		Note water at	91					
11	12			Clay (80%); s	ilt (20)	(); red bro	wn to gray; dry	/; no odor		
12	15			Clay and silt	(60%);	cobbles an	d coarse grave	. (40%); red	brown to	
				gray; dry; no	odor					
15	17			Refusal at 16	, ·					
					<u>.</u> .					
									- <u> </u>	

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MILLER, INC.
Environmental Services

Boring/V	Vell_MW-8	(3rd) P	roject/No. 💾	C0239.001.005			Page'	of
Site Location					Drilling ₄₋₁₃ Started		Drilling 4-13-95, Completed	/08:50
			feet	Hole Diameter	inches	Type of Samp Coring Devic	ole/ e	
Length a of Coring	g Device	neter 				Sampling	Interval	feet
				☐ Surveyed				
_	Fluid Use	ed				Drilling Me	ethod	
Drilling Contract	or McCal	l Bros.					Helper	
Prepared By	G. Calv	in Whitfi	eld			Hammer Weight	Hammer Drop	inches
(feet below	ore Depth land surface)	Recovery	Time/Hydraulic Pressure or Blows per 6		Ça.	mple/Core Description		
From	To	(feet)	inches				•	
0	16			Clay (20%); tras	h (80%); plastic	, wood, metal		
16	17			Clay (50%); sand	(50%); fine to	medium grained;	light brown to whi	te;
				dry; no odor				
17.5				Water				
20	21			Weathered rock				
				·				
							-1	
								·······················
							oback - Planck - vinking time	
							,	
				·				



Borina/M	/ell	Р	roject/No	NC0239.001.005			Page1	of	1
Site Location	Chapel H	iill, NC			Drilling Started	Dri Co	illing 4 mpleted _	-18-95	
Total Dep	oth Drille	d	feet	Hole Diameter6	inches	Type of Sample/ Coring Device	Split spo	on	
of Coring	Device		x 2'			Sampling Inte	rval		feet
Land-Sur	face Ele	v	feet	□ Surveyed	☐ Estimated	Datum			
Drilling F	luid Use	d				Drilling Method	d	Totaly	
Drilling Contracto	or <u>McCal</u>	l Bros.			Dr	iller	Helper_		
Prepared By	G. Calv	/in Whitf	ield			Hammer Weight	Hamı Drop	mer	inches
Sample/Ci (feet below i	ore Depth and surface) To	Core Recovery (feet)	Time/Hydraulid Pressure or Blows per 6 inches	;	Sa	mple/Core Description			- 14
0	2			Clay (80%); sil	t (20%); brown o	range; dry; no odor	,	•	
2	4			Clay (60%); sil:	t (40%); brown o	range to white; dry	; no odor		
6	8			Clay (70%); sand	d (30%); fine gra	ained; brown orange	to white;	dry;	
				no odor			•		
8	10			Same as 61 to 8	•				
10	12			Same as 61 to 8	1				
12	14			Clay (50%); san	d (50%); fine to	coarse grained; re	ed to white	;	
				dry; known odor					
14	16			Clay (50%); sil	t (30%), sand (2	0%); fine to medium	grained;		
				brown to white					
16	17			Clay (50%); san	d (50%); fine gr	ained to gravel siz	te; brown t		
				white; dry				-	
17	20			Rock					
20	21			Soft clay and s	ilt	1414			,
21	32			Rock					,
32	33			Soft clay and s	ilt (stop drilli	ng and let sit); 12	2:30		-
33	40			-Start drilling;	rock; 12:45				
40	43			Soft, will let	work sit; 12:50				
			_						

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Environmental Services

D	_ MW-10	D	roject/No. 1	IC0239.001.005			Page¹ of	i
Boring/we Bite Location			10jec/110		Drilling 4-13 Started	-95/11:40	Drilling 4-13-95 Completed	
				Hole Diameter		Type of Sami	ole/ e	
Length at of Coring	nd Diam Device	eter				Sampling	Interval	feet
Land-Sur	face Elev	v	feet	☐ Surveyed	□ Estimated	Datum		
Drilling F	luid Use	d				Drilling M	ethod	
Drilling Contracto	or McCal	l Bros.					Helper	
Prepared By	G. Calv	in Whitf	ield			Hammer Weight	Hammer Drop	inches
Sample/Co (feet below in	ore Depth		Time/Hydraulic Pressure or Blows per 6 inches		Sa	mple/Core Descriptio	n	
0	2			Topsoil and root	ts (OVA = 10 ppms	•)		
2	4			No recovery, stu	ump			
4	6	3		Clay (70%); silt	t (30%); orangish	red to white	dry; no odor	
6	8			Clay (60%); sili	t (20%); sand (20	0%); fine grain	ned; orange to brown;	
				dry; no odor				
8	10			At 9' Clay (60%); sand (40%); f	ine to medium	grained; orange brown;	•
				damp; no odor				
10	12			Same as 9' to 1	0' with some odo	r		-
12	14			Same as 10° to	12'; strong odor	(OVA = 1500 p	pms)	
14	16			Same as 10' to	12'; strong odor	(OVA = 1600 p	pms)	
18	20			Clay (80%); san	nd (20%); fine to	medium graine	d; brown red; dry;	
				strong odor				
20	22			Same as 181 to	20' (OVA = 1500	ppms)		
22	24			Same as 18' to	20' (OVA = 1500	ppms)		
24	26			Same as 18' to	20' (OVA = 1500	ppms)		
26	28			Same as 18' to	20' (OVA = 1500	ppms)		
28	30			Same as 18' to	20' (OVA = 1500	ppms)		
31				Rock				
				Well not insta	lled			



Boring/V	Vell <u>Mu-11</u>	P	roject/No. "	20239.001.005			Page'	
—	Chapel Hi				Drilling ₄₋₁₈ - Started		Drilling 4-18-95/ Completed	18:45
			feet	Hole Diameter	inches	Type of Samp Coring Devic	ole/ e	
Length of Corin	and Diam ng Device	neter 				Sampling	Interval	feet
Land-Su	urface Ele	V	feet	□ Surveyed	□ Estimated			
		ed				Drilling M	ethod	
Drilling Contrac	tor McCall	Bros.					Helper	
	G. Calvi		eld			Hammer Weight	Hammer Drop	inches
Sample/(feet below	Core Depth land surface)	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches		Sa	mple/Core Description	n	
0	2			Clay (70%); silt	(30%); brown ora	ange; dry; no o	dor	
2	4			Clay (90%); silt	(10%); orange to	red to white;	dry; no odor	
4	6			Same as 2' to 4'				
6	8			Refusal at 6.5';	saprolite			
6.5	8.5			Rock				
35				Hit water				
37				סד				
					-			
		-						



Boring/V	Velimu-12	P	roject/No. 🖁	100239.001.005			Page ¹ (
O:4	Chapel Hi				Drilling ₄₋₁₃₋ Started	95/09:30	Drilling Completed 4-13-95/	10:10
Total De	pth Drille	d	feet	Hole Diameter 6	inches	Type of Samp Coring Device	le/ 	
Length a of Corin	and Diam g Device	neter ———				Sampling	Interval	feet
Land-Su	ırface Ele	V	feet	☐ Surveyed	□ Estimated	Datum		
Drilling (Fluid Use	ed				Drilling Me	thod	
Drilling Contract	tor McCall						Helper_Pete	
Prepare By	d G. Calvi	n Whitfi	eld			Hammer Weight	Hammer Drop	inches
Sample/0	Core Depth land surface)		Time/Hydraulid Pressure or Blows per 6 inches			mple/Core Description		
0	6.5			Rock				
6.5	7			Sand (60%); fine	to medium graine	d; clay (40%);	red brown; dry;	
				no odor				
7	12.5			Rock				
				Fracture at 12.5				
12.5	21			Rock				
				Fracture at 21				
21	22			Rock				
				Below hole for 5	min ≈ 1 gpm			
				-				
							<u> </u>	

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& MILLER, INC.
Environmental Services

Boring A		3 P	roject/No	NC0239.001.005 Page of
Site	Chapel	Hill, NC		Drilling 4-19-95/07:55 Drilling 4-19-95/08:40 StartedCompleted
Total De	pth Drille	d	feet	Hole Diameterinches Coring Device
ength of Corin	and Diam g Device	neter 		Sampling Intervalfeet
_and-Su	ırface Ele	V	feet	☐ Surveyed ☐ Estimated Datum
Drilling	Fluid Use	ed		Drilling Method
Drilling Contrac	tor	ll Bros.		DrillerHelper
Prepare By	d G. Cal	vin Whit	field	Hammer Hammer WeightDropinches
Sample/	Core Depth land surface) To		Time/Hydraulic Pressure or Blows per 6 inches	
0	5			Clay (70%); silt (20%); sand (10%); fine grained; brown to orange;
				dry; no odor
5	12			Clay (60%); sand (40%); fine grained; brown to tan; dry; no odor
12	17			Rock
17				Fracture; little water
12	22			Rock
22	23			Fracture
23				TD

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Environmental Services

Boring/Well MW-14/CH-1 Project/No. Site Location UNC - Airport Road		oject/No	NC0239.001				Page1	of		
					Drilling Started_		Co	lling mpleted		
				Hole Diameter	inche	Type of Soring	of Sample/ g Device	Grab/Spli	t Spoon	.
Length and of Coring (d Diam Device	eter				Sa	mpling Inter	val		feet
				☐ Surveyed			ıtum			
Drilling Flu	id Use	d				Dri	illing Method	Splits	poon/A1r	nammer
Drilling Contractor	McC	all Broth	ers							
Prepared By	P. Ma	ner				на We	mmer ight	Hamm Drop		_inches
Sample/Core (feet below land		Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 Inches	:		Sample/Core	Description			
0	2			Clay (60%), L	ight Orange Br	own, Sand ((30%), Quart	z, Very Fin	e, Light	
				Orange, Silt	(10%), Quartz,	Pebbles, 1	Trace.			
2	4.5			Clay (50%), L	ight Brown, Sa	nd (20%), (Quartz, Very	Fine, Subr	ounded,	
				Silt (20%), Q	uartz, Organic	s (10%), W	ood, Dark Br	own.		
4.5	8			Clay (40%), L	ight Bluish Gr	een to Ora	nge, Sandy,	Silty, Sand	(30%),	
				Quartz, Fine-	Medium, Subrou	nded, Ligh	t Orange, Si	lt (20%), C	luartz.	
8	9			Clay (50%), 0	range-Reddish	Orange, De	nse, Silt (2	20%), Sand (20%)	
				Quartz, Organ	ics (10%), Woo	xd.				
9	10.5			Clay (80%), G	rayish White 1	o Light Br	own, Weather	red Bedrock,	• <u></u>	
				silt (10%), L	ight Orange,	Sand (10%),	Quartz.			
10.5	15			Clay (70%), L	ight Orange,	silt (20%),	Sand (10%)			
					-					
									 	
										
								· · · · · · · · · · · · · · · · · · ·		



Paring M/a	, MW-1	15 Pr	oject/No	NC0239.001					Page		
Site	UNC	- Airpor	t Road			Drilling Started_	7-19-	95	Drilling Completed	7-19-5	×
Total Dept	h Drilled	d	feet	Hole Diameter_	10 ^H	inches	Ty C	pe of Sample oring Device	e/ 		
Length an of Coring	Device							_Sampling I	nterval		feet
Land-Surfa	ace Elev	v	feet	□ Surveyed		Estimate	d	Datum			
	uid Use	d					·	_Drilling Met	hodAir	наттег	
Drilling Contractor	r McC	all Broth	ners					Kenny			
Prepared By	D. Ca	alvin Whi	tfield					Hammer _Weight	Ha Dr	mmer op	inches
Sample/Cor (feet below lar	re Depth		Time/Hydraulic Pressure or Blows per 6 inches					Core Description			
0	15			Rock Granite							
15				Fracture							
15	24			Rock							
24	29			Void							
29	33			Rock Granite	:						
33				Fracture							
40				ID, set surf	ace ca	sing at 4	0' bls				
56	57			Fracture, wa	ter (c	hemical o	dor),	OVA 15-20 pp	m		
57	60			Rock Granite	<u> </u>						
							<u> </u>				
											
									.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
				,						·	
		-	-								
					<u>.</u> .						



Roring/We	MW-1	6 Pı	roject/No.	NC0239.001		_	. 	Pa	ge	1	_ of	
Site	UNC	- Airpor	t Road		Drilling Started	7-20-95	;	Drilling _ Comp] ileted	7-20-	95	
Total Dept	h Drilled	d82	feet	Hole Diameter_	6inches	Typ Cor	e of Sam ring Devic	ple/ :e				
Length an of Coring	Device	eter					Sampling	Interval	2			feet
					☐ Estimate		Datum					
	uid Use	d					Drilling M	ethod	HSA/	Air Ha	mmer	
Drilling Contractor	McC	all Broth	ners							r <u>Dea</u> nmer		
Prepared By	Calvi	n Whifie	ld				Hammer Weight _		_ Dro	p		_inches
Sample/Cor (feet below lar From	re Depth nd surface) To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	;		Sample/C	Core Descriptio	วก				
0	2			Clay (70%),	trash (30%), bro	un to c	orange, we	t, no od	or			
2	4			Clay (50%),	gray brown, tras	h (50%)	, wet					
4	6			Clay (80%),	sand (20%), fine	to med	dium grain	, gray t	o bro	⊮n, we¹	t	
6	8			Same								
8	9			Sand, weathe	ered rock (70%),	clay (3	50%), rock	, change	to 1	D-1/4		
				augers then	enter with a 10"	air ha	ammer					
9	14			Weathered ro	ock							
14	16			Comp rock, i	willset a 6" surf	ace cas	sing to 16	bls				-
16	30			Rock granite	e				<u> </u>			
30				Stop and le	t well set to see	if wa	ter will c	ome in				
30	60			Rock granit	e, let set, no wa	ster						
60	82			Rock granit	e, no water							
							,					
					and the second s			 	·			
				· .								
							B. P. 19		-			



Boring/We	MW-1	<u>7</u> Р	roject/No	NC0239.001						ge		
Site Location _						Drilling 7-2 Started 7-2	21-9	5	Drilling Comp] ileted _		
Total Dept	h Drille	d	feet	Hole Diameter_	10.5	inches	Ty _j Co	pe of Sampl oring Device	e/ s	olit sp	oon	
Length an of Coring	d Dian Device	neter	2" x 21					_Sampling I	nterval	2		 feet
				□ Surveyed				Datum				
Drilling Flu	uid Use	ed						Drilling Met	hod_	HSA		
Drilling Contractor	McC	all Broth										
Prepared By	Calvi	n Whitfi	eld					Hammer Weight		Ham Drop_	mer —	 _inches
Sample/Con (feet below lan	e Depth id surface) To	Core Recovery (feet)	Time/Hydraulid Pressure or Blows per 6 inches	•		Sa	mple/	Core Description	100			
0	2			Clay (80%),	silty sa	and (20%), r	ed l	brown, no od	or			
2	4			Trash (80%),	clay (2	20%), red br	own	, wet, trash	odor			
5				Auger refusa	l							
5	6			Rock								
6	15			Trash, clay,	wet							
15	21			Clay (80%),	sand (2	0%), brown,	gra	y, wet				
21	24			Weathered ro	ck							
24	26			Rock, casing	set at	26' per C.	Lov	dahl 7-21-95	at 16	15 hrs		
26	50			Rock, no fra	cture h	it, will wa	it f	or water				
50	68			Rock granite	· · · · · · · · · · · · · · · · · · ·							 ·
68	69			Hit fracture	· ···			 :				
69	71		ļ	Rock granite								 <u> </u>
												 ·
				-								
					•	-						



Boring/We	II <u>nu-</u> 1	18Pi	roject/Na	NC0239_001			Page	_1 of	
Sito					Drilling	-18-95	i)rillina		
Location _	UNC	- Chape	l Hill		Started/			1 17 73	
Total Donal	h Drillos	- 14	foot	Hole Diameter	6 inches	Type of Samp Coring Device	eSplit	spoon	
						-			
cengin and	Device		24"x21			Sampling	Interval		teet
				☐ Surveyed					
Drilling Flu	uid Use	dNon	e			Drilling ivie	SUIUURSAA	AIT HAULE	
Drilling	, Met	all Brot	har		D	rillerKenny	Helpe		
						Hammar	Har	nmor	
By	P. Ma	aner				Weight	Dro	ρ	inches
Sample/Cor (feet below lan		Core	Time/Hydraulic Pressure or						
From	То	Recovery (feet)	Blows per 6 inches		- S	ample/Core Description	1		
							Mottling.	Sand (30%)	Fine
0	10			Clay (40%), Si	lt (30%) Reodis	sh Orange with T	an mottering;	3812 (30%)	7 7 1110
				to Coarse, Tar	; No Odor; Sapı	olite.			,
			-						
10	15			Bedrock.					
		1		·					
		ļ	<u> </u>						
-		 							
			<u> </u>						
		+	-						
		-							
1		1							
	1	-							



Boring/Well	MW-19	9 Pro	oiect/No	NC0239.001			Page1o	f
Site Location					Drilling Started7-	19-95(Orilling Completed 7-19-95	
Total Depth	Drilled	d b	feet	Hole Diameter	inches	Type of Sample Coring Device	Split spoon	
Length and of Coring [i Diam Device	eter 2	!" x 2'			Sampling In	iterval 2	feet
Land-Surfa	ce Elev	/	feet					
	d Use	d <u>None</u>				Drilling Meth	nod <u>HSA</u>	
Drilling Contractor	McCa	all Broth	ers		Dr	iller <u>Kenny</u>	Helper	
Prepared By	Calvi	n Whitfie	ld			Hammer Weight	Hammer Drop	inches
Sample/Core (feet below land	Depth		Time/Hydraulic Pressure or Blows per 6 inches			imple/Core Description		
0	2			Clay (80%), sil	t (20%), with o	rganic staining,	reddish orange with	n tan
				dry, no odor				
2	4			Same as above,	with gravel siz	e rock fragments		
4	6			Weathered rock				
6	10			Weathered rock				
10				Rock, TD				
					-			
					······································			
				<u>.</u> .				······································

▲ GERAGHTY
A S MILLER, INC.
Environmental Services

Roring/Wel	MW-20	Pro	oiect/No	NC0239.001				Page	<u> 1</u>	of_	1
Site Location _		- Airport	Road		Drilling 7-	27-95	(Drilling Comple	ted <u>7</u>	-27-95	
Total Depth	n Drilled	25	feet	Hole Diameter	6inches	Typ Cor	e of Sample ring Device	Blo	w back		
of Coring	Device										
Land-Surfa	ace Elev	/	feet	□ Surveyed	☐ Estimated		Datum				
	iid Use	d					Drilling Meth	nod	ir nan	mer	
Drilling Contractor	McCa	ll Broth	ers		D	riller_	Pete	H	elp er_	Chris	
Prepared By							Hammer		Hamn	ner	
Sample/Con (feet below lan	e Depth d surface)	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	:	S	ample/C	ore Description				
0	17			Clay (80%), si	lt (20%), red br	own,	damp, no odd	or		····	
17	19			Sandstone, tar	1						
19	24			Sand (70%), Cl	lay (30%), tan br	rown,	wet				
24	25			Rock granite							
											
											
							<u> </u>				

/ GERAGHIY
A S MILLER, INC.
Environmental Services

Envil	ronmen: 	Dr.	niect/Nla	NC0239.001				1 Page	_ of
Site	UNC	- Airport	Road		Drilling Started	7-27-9:	٠	Orilling 7-27 Completed	
Total Depth	n Drilled	20 	feet	6 Hole Diameter	inche	Ty _l es Co	pe of Sample oring Device	/ Blow back	
Land-Surfa	ce Elev	/	feet	☐ Surveyed	☐ Estimat	ed	Datum	Air Hammer	
Drilling Flu	id Use	d					_Drilling Meth	od	
Drilling Contractor	McCa	all Broth	ers			_Driller_	Pete	Ch Helper	1r1s
Sample/Core (feet below land	: Depth		Time/Hydrauli Pressure or Blows per 6	ic					
From	То	(feet)	inches	Clay (80%), sili	+ (20%) rec		/Core Description		
0	4			Clay (80%), S10	(20%), 160		· · · · · · · · · · · · · · · · · · ·		
4	15			Rock granite					
15				Fracture					
15	17			Rock granite					
17				Fracture					
17	20			Rock granite					
									
		-				,			



Boring/V	Veli MW -:	22 p	roject/No.	NC0239.001			Page	1	_ of	1
					Drilling Started		Drillina			
Total De		d10		Hole Diameter_	inches	Type of Sample Coring Device	e/ 		,, <u></u>	
of Corin	g Device	————				Sampling I	nterval	 		feet
Land-Su	rface Ele	V	feet	☐ Surveyed	☐ Estimated	Datum				
Drilling F	Fluid Use	ed				Drilling Met	hod	-		
Drilling Contract	tor				Drill	er	Helpe	r		
Prepared By	P. M	ener	<u>-</u>			Hammer Weight	Har Dro	nmer P ——		_inches
	Core Depth land surface) To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches		Sam	ple/Core Description				
0	2			Clay (80%),	silt (10%), snad (1	0%), orange				
2	6			Granite (100	X), possible boulde	Γ				
6	7			Granite and	saprolite, weathere	d granite, soil	, moist			
7	10			Bedrock, gra	nite, gray, weather	ed and fracture	d			
						- 				
	ļ									
						-				
							· · · · · · · · · · · · · · · · · · ·			



D = -!- = 0.4	/ou MW-24		roject/No	NC0239.001		Page 1 of 1
Site	rinc .	- Chanel	Hill	Drilling Started	1-10-96	Drilling Completed
					IV.	vpe of Sample/
				Hole Diameter 6"/10" inch		oring Device
Length a of Coring	and Diam g Device	eter 				Sampling Intervalfe
Land-Su	rface Elev	v	feet	☐ Surveyed ☐ Estima	ited	Datum
Drilling F	Fluid Use	d _				Drilling MethodAir_Hammer
						r B. Williamson Helper
	_1					Hammer Hammer
Ву	C. Whi	tfield				Dropincin
Sample/C (feet below	ore Depth land surface)	Core Recovery	Time/Hydrauli Pressure or Blows per 6	c	Camala	e/Core Description
From	To	(feet)	Inches		<u> </u>	
0	11			Clay (70%); Silt (20%); San	nd (10%)); Damp; Brown Red; No Odor.
11				Rock.		
24				Fracture. No Water.		
46				Fracture.	 -	
56				Fracture.		
100				Driller Hit Fracture w/10"	Hammer.	•
105				Bottom of Hole. Set Casing		
116				Fracture. No Water.		
116						
120	ļ		1	Fracture. No Water.		
200				Rock. Stop Drilling.		
						·
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				-		
		1				



Boring/We	eli MW-2	5 P	roiect/No	NC0239.001			Page ¹ _	of
Site	UNC	- Chapel	Hill		Drilling Started 1-2	23-96	Drilling Completed	
Total Dep	th Drille	d15	feet	Hole Diameter_	8inches	Type of Samp Coring Device	le/ 	
_								
Land-Surf	face Ele	V	feet	☐ Surveyed	☐ Estimated	Datum		
Drilling Fl	luid Use	d				Drilling Me	thodth	
Drilling Contracto	or <u>McC</u>	all Broth	ners		Dr	iller	Helper	
Prepared By	C. Wh	itfield				Weight	Drop _	inches
Sample/Co (feet below la	ore Depth and surface) To	Core Recovery (feet)	Time/Hydraulic Pressure or Blows per 6 inches	:	Şa	mple/Core Description		
0	4			(Sandy Clay)	Clay (70%), Sand	(30%) Fine Grain	ned; Brown Red; N	Jet; No Odor.
	12				Silt (30%); Red Br			
4	12				own at 10-ft; Dry;			
12	13			Wet Zone.				
13				Soft Weather				·
15				Bottom of Ho	le.			
					·			
				-				
				·				



Boring/Well_MW-26	Project/No.	NC0239.001 PagePage	
Site UNC - C	hapel Hill	Started 1-23-96 Completed 1-24-96	_
Total Depth Drilled	180 feet	Type of Sample/ Hole Diameter 6 inches Coring Device	_
Length and Diamete of Coring Device	r 	Sampling Intervalfer	et
		☐ Surveyed ☐ Estimated Datum	_
Drilling Fluid Used _		Drilling Method Air Hammer	
Drilling	Brothers	DrillerB. Williamson_ HelperJim	_
Prepared Byc. whitf	ield	Hammer Hammer Weight Dropinche	es
Sample/Core Depth (feet below land surface) C	Time/Hydrauli ore Pressure or covery Blows per 6 eet) inches	lic ·	
		Tan Brown Moist. No Odor	
0 6		Clay (60%), Silt (30%), Sand (10%) Fine Grained, Tan Brown, Moist; No Odor	\exists
6 13		Becomes Red Brown.	\dashv
13 14.5		Weathered Rock, Grey.	\dashv
14.5 20		Install a 6-3/4" Outer Casing and Pressure Grout.	_
20 125.5		Rock.	4
125.5 126		Fracture.	_
126 180		Rock.	\dashv
180		Bottom of Hole.	_



Boring/V	Vell_MW-2	<mark>7</mark> Р	roject/No	NC0239.001	<u></u>		Page ¹	of
Site Location	UNC	- Chapel	Hill		Drilling Started_1-17	'- 96	Drilling Completed	
				Hole Diameter_		Type of Samp	le/ 	
Length a	and Dian	neter				Sampling	Interval	feet
					☐ Estimated			
							thod Air Hamme	:r
Drilling					Dril			
Prepared	<u>ار</u> ا					Hammer	Hamme)r
Ву	C. Whi	tfield				vveignt	urop _	Inches
Sample/C (feet below i	ore Depth land surface) To	Core Recovery (feet)	Time/Hydrauli Pressure or Blows per 6 inches	c	Sam	nple/Core Description		
1,0		(150.)						
0	8			Clay (10%); Sa	nd (40%) Fine Grai	ned; Tan Brown;	; Damp; No Odor.	-
8	13			Weathered Rock				
13				Rock.				
20				Stopped Drilli	ng. Will Install T	emporary Casing	g.	
60				Rock.				
87	100			Rock Becoming	Softer.		,	
100				Stopped Drilli	ng.			
100	120			Rock.				· R
					-			



D = -i = = AA/s	.ıı M ₩-28	Pı	roject/No	NC0239.001			_Page	of_	
Boring/vve Bite	1NC -	Chanel	H111	NOCES / TOOL	Drilling Started 1-1	5-96 D	rilling completed	1-15-96	
				Hole Diameter_8		Type of Sample/ Coring Device			
						Sampling Int	erval		fee
and-Sud	ace Flev	,	feet	☐ Surveyed	□ Estimated	Datum			
Orilling Fl	uid Use	d	<u> </u>			Drilling Meth	od <u> </u>	Billine 1	
Orilling Contracto	r <u>McCal</u>	ll Brothe	ers		Dr	iller B. Williamson	nHelpe	r Tommy mmer	& Jim
Prepared By	C. Whi	tfield				Weight	Dro	p	inche
Sample/Co (teet below la From	re Depth		Time/Hydraul Pressure or Blows per 6 inches	ic		ample/Core Description			
0	10			Clay (70%); San	ndy Silt (30%); B	rown Red; Moist;	No Odor.		
10	15			Rock.		<u>, </u>			
15	18			Soil Pocket.					
18	39			Rock.					
39	42			Soft Drilling.					
42				Hit Water.					
42	46			Rock.					
46				Bottom of Hole	•				
									
							· · · · · · · · · · · · · · · · · · ·		
		<u> </u>							<u>. </u>
		-							
}									

Appendix E

Monitor Well Construction Diagrams and Well Construction Records

(GERAGHTY	WELL CONSTR	UCTION	Well Numb	er MW-6
WARREN	& MILLER, INC. Environmental Services	& MILLER, INC. DIAGRAI		Client Unive	ersity of N.C. at Chapel Hill
A. WAR	Location	Coordinates N 796956.7154	Ground Elevation		Relative Top-of-Casing Elevation 472.55
	Chapel Hill, N.C. Geologist	E 1982259.422 Drilling Contractor McCall Brothers	Drilling Method Hollow Stem-A	woer	Rig Type
DRAF TER:	C. Whitfield Development Method	Volume Evacuated	Well Completed		Formation Monitored
}	Redi-Flow Subm. Pump	40 Gallons	4-11-95		
VED: C. LAWSON	Depth (Ft.)		, , , , , , , , , , , , , , , , , , , ,	ective S	neter Lockable Steel Casing
APPROVED:		r - 1			k 3—ft x 6—in ete Pad
_	O 65		207-201-201-2014		Surface
AHL			HENEYIENEN .		
. LOVDAHL					3 1/2-inch Borehole
ED: C.					
снескер:				ement G 7 Bento	Grout with nite
			0,	0 00.110	
WCD-002A					iameter Steel Casing
		7 7 7 7 7 7	31	(unness	Steel Casing
DRAWING NO:	8.0 <u> </u>			•	entonite Cap Iter Pack
DRAN	12.0		To	op of 10	0-foot
CHAP				tainless 110—in [©]	Steel Slot Well Screen
UNC-			. •	710 111 3	Side Well Sereel.
E E					
PRJCT NO.: NC0239.001					
11AUG95			Т	hreaded	Plug
TE: 1:	22.0		Ť	otal Der	pth & Base
DWG DATE:		Not To Sca		i Sceen	I
<u>a</u> l	-	1100 10 000	· ·		

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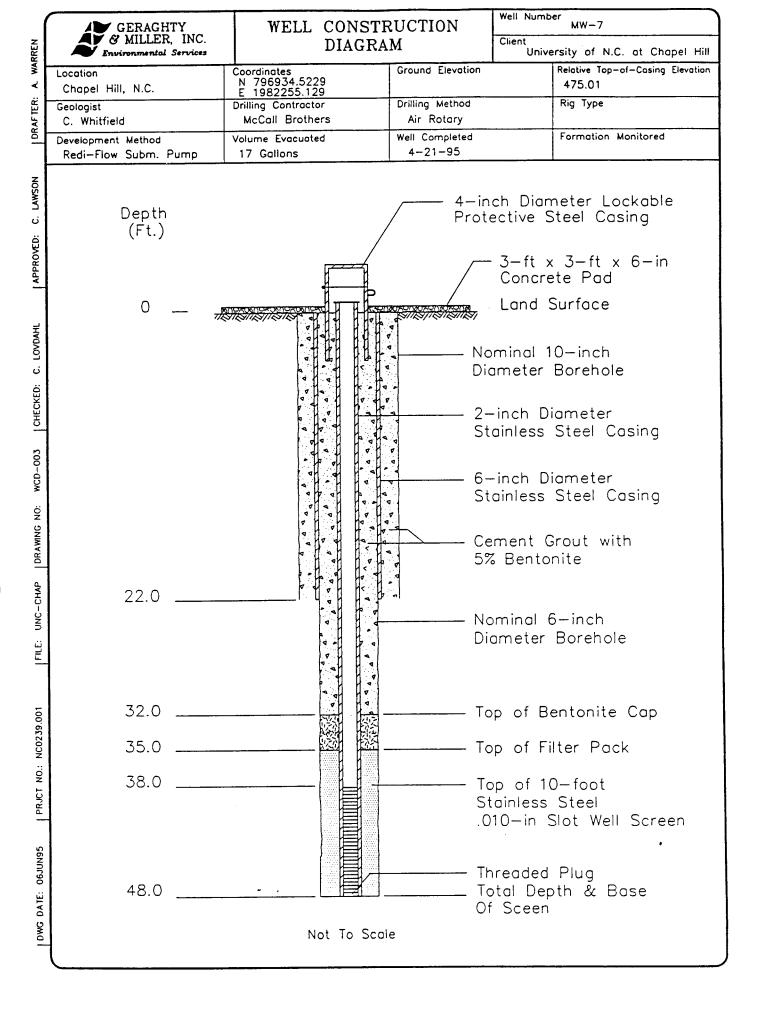
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M. P. Carles

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z	GERAGHTY & MILLER, INC.	WELL CONSTR		Well Number MW-9 Client
WARREN	Environmental Services	Coordinates	Ground Elevation	University of N.C. at Chapel Hill Relative Top-of-Casing Elevation
- -	Location Chapel Hill, N.C.	N 796956.2920 E 1982406.427	Ground Environment	476.25
ORAF TER:	Geologist C. Whitfield	Drilling Contractor McCall Brothers	Drilling Method Air Rotary	Rig Type
DRA	Development Method	Volume Evacuated	Well Completed	Formation Monitored
	Redi-Flow Subm. Pump	11 Gallons	4-21-95	
D: C. LAWSON	Depth (Ft.)	/		-inch Diameter Lockable rotective Steel Casing
APPROVED:				- 3-ft x 3-ft x 6-in Concrete Pad
	0 — "		BIBNETI BIBNET	Land Surface
LOVDAHL			• •	ominal 6-inch
ن			D	iameter Borehole
CHECKED:				ement Grout with % Bentonite
WCD-002				—inch Diameter,
			S	tainless Steel Casing
DRAMING NO:	16.0	V 10		op of Bentonite Cap
RAWI	18.0	[2004] J.W.		op of Filter Pack
	20.0			op of 10—foot tainless Steel
UNC-CHAP				010—inch Slot Screen
FILE				
100				
PRJCT NO.: NC0239.001				
): NC				
CI CI			_	(
l PRJ	35.0			Base of Screen Threaded Plug
ñ			·	. ,
670N9				
IE: 0	43.5		T	otal Depth
DWG DATE: 06JUN95		Not To Sco	عاد	
٦	1	140(10 30)	J10	

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-	△ GERAGHTY	WELL CONSTR	UCTION	Well Number MW-11
WARREN	& MILLER, INC. Environmental Services	DIAGRA		Client University of N.C. at Chapel Hill
۸. ۲	Location Chapel Hill, N.C.	Coordinates N 797115.0650 E 1982555.525	Ground Elevation	Relative Top-of-Casing Elevation 472.78
DRAF TER:	Geologist C. Whitfield	Drilling Contractor McCall Brothers	Drilling Method Air Rotary	Rig Type
DR	Development Method Redi-Flow Subm. Pump	Volume Evacuated 60 Gallons	Weil Completed 4-18-95	Formation Monitored
APPROVED: C. LAWSON	Depth (Ft.)	r—A		ch Diameter Lockable ective Steel Casing 3-ft x 3-ft x 6-in Concrete Pad
	O 957	TO ROCK MOST MOST MOST MOST MOST MOST MOST MOST	acionacione na constante na con	Land Surface
: WCD-002A CHECKED: C. LOVDAHL			Did Ce 5%	minal 6—inch ameter Borehole ment Grout with 3 Bentonite -inch Diameter ainless Steel Casing
PRJCT NO.: NC0239.001 FILE: UNC_CHAP DRAWING NO.	22.0 24.0 26.0		То Тс St	p of Bentonite Cap p of Filter Pack p of 10—foot ainless Steel 10—in Slot Well Screen
DWG DATE: 11AUC95	36.0	Not To Scal	To	nreaded Plug Stal Depth & Base Sceen

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(GERAGHTY WELL CONSTI		UCTION	Well Number MW-12	
RE'N	GERAGHTY & MILLER, INC. Environmental Services	WE MILLER, INC. DIAGRAM		Client University of N.C. at Chapel Hill	
A. WARREN	Location	Coordinates N 796967.5808 E 1982042.438	Ground Elevation	Relative Top—of—Casing Elevation 465.81	
1	Chapel Hill, N.C. Geologist	Drilling Contractor	Drilling Method	Rig Type	
DRAFTER:	C. Whitfield Development Method	McCall Brothers Volume Evacuated	Air Rotary Well Completed	Formation Monitored	
	Redi-Flow Subm. Pump	5 Gallons	4-13-95		
APPROVED: C. LAWSON	Depth (Ft.)			ech Diameter Lockable ective Steel Casing - 3-ft x 3-ft x 6-in Concrete Pad	
	0			Land Surface	
LOVDAHL			Na	ominal 6-inch	
C. LO				ameter Borehole	
KED:			0.	ement Grout with	
снескер:				8 Bentonite	
02A					
WCD-002A				—inch Diameter, Schedule D, PVC Casing	
DRAWING NO:	8.0 <u> </u>	F2/211 1/20/21		op of Bentonite Cap op of Filter Pack	
DRA	12.0		T	op of 10-foot	
CHAP				tainless Steel)10—in Slot Well Screen	
UNC-CHAP					
FILE:					
_					
PRJCT NO.: NC0239.001					
DWG DATE: 11AUG95	22.0	Not To Sco	T	Threaded Plug Total Depth & Base Of Sceen	

- Production Communication C

Photocology Annual Comment

Diagram Continue		△ GERAGHTY	WELL CONSTR	RUCTION	Well Numb	er MW-13
Chopel Hall, N.C. E 1927185 DS0 E Geologist C. Whitfield Development Method Redi-Flow Subm. Pump Depth (Ft.) Depth (ZREN		DIAGRA	M	Client Unive	ersity of N.C. at Chapel Hill
Continuous Wire Work Continuous Well Completed Continuous Wire Work Continuous Wire			N 797086.2540	Ground Elevation		Relative Top—of—Casing Elevation 467.60
Redi-Flow Subm. Pump Depth (Ft.) Depth (Ft	<u>#</u> -	Geologist	Drilling Contractor			Rig Type
Depth (Ft.) Depth (Ft.) Depth (Ft.) O	ORA -			Well Completed		Formation Monitored
Protective Steel Casing (Ft.) 3-ft x 3-ft x 6- Concrete Pad Land Surface Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing 9.0 11.0 13.0 Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Woo .010-in Slot Well Sc	-	Redi-Flow Subm. Pump		4-19-95		
Protective Steel Casing (Ft.) 3-ft x 3-ft x 6- Concrete Pad Land Surface Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing 9.0 11.0 13.0 Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Woo .010-in Slot Well Sc	WSON			1_in	ch Dian	neter Lockable
Top of Bentonite Cander Pack 13.0 3-ft x 3-ft x 6-Concrete Pad Land Surface Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Cander Top of Filter Pack Top of 10-foot Contonuous Wire Woo.010-in Slot Well Sc			,			
Land Surface Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Woo .010-in Slot Well Sc	VED:	(٢٤.)			7 (:	7 (4 () :-
Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Woo .010-in Slot Well Sc	APPRO					
Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Wow .010-in Slot Well Sc		0			Land	Surface
Diameter Borenoie Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Woo .010-in Slot Well Sc)AHL	η_{ξ}				
Cement Grout with 5% Bentonite 2-inch Diameter, Sc PVC Casing Top of Bentonite Ca Top of Filter Pack Top of 10-foot Contonuous Wire Wor .010-in Slot Well Sc						
2-inch Diameter, Sc PVC Casing 9.0 11.0 13.0 Top of Bentonite Ca Top of Filter Pack Contonuous Wire Wor .010-in Slot Well Sc	- 1					
2-inch Diameter, Sc PVC Casing 9.0 11.0 13.0 Top of Bentonite Ca Top of Filter Pack Contonuous Wire Wor .010-in Slot Well Sc	CHECK			=		
9.0				<i>J</i> /	o Denico	THE
9.0	00-Q		الها الها			
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Contonuous Wire Wood 100 - in Slot Well Sc	NG NG					
Contonuous Wire Wood 100 - in Slot Well Sc	DRAW					
PRJCT NO.: MC0239.001 FILE: UNC-	1	10.0		C	ontonuo	us Wire Wound,
PRJCT NO.: NC0239.001 FILE:	NC-CI			. C	10-in 3	olot Well Screen
PRJCT NO.: NC0239.001						
	Ì					
	39.001					
	NC02					
	T NO.:					
	PRJC					
Threaded Plug	1AUG9				hreaded	Plug
23.0 Total Depth & Base	TE: 1	23.0		T	otal De	pth & Base
Threaded Plug 23.0 Total Depth & Base Of Sceen Not To Scale	WG DA		Not To Soo		ı Sceen	
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Middle Committee Committee

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Section (St. Proposition)

(GERAGHTY WELL CONSTRUCTION		Well Number MW-14		
WARREN	Environmental Services	1/1/4/11/////			rsity of N.C. at Chapel Hill
A WA	Location Chapel Hill, N.C.	Coordinates	Ground Elevation		Relative Top—of—Casing Elevation
DRAF TER:	Geologist P. Maner	Drilling Contractor McCall Brothers	Drilling Method Air Rotary & Hollow Stem A	uger	Rig Type
E E	Development Method Redi-Flow Subm. Pump	Volume Evacuated	Well Completed 8-11-95		Formation Monitored
APPROVED: C. LAWSON	Depth (Ft.)			ective S 3-ft x	neter Lockable teel Casing 3-ft x 6-in te Pad
I AF	_				Surface
C. LOVDAHL	0 <i>1</i> .		11 0 1	-inch St	
1	27.0			Bedrock	Surface
р (СНЕСКЕВ:	29.0 ———			ominal 1 ameter	0—inch Borehole
DWG DATE: 11AUG95 PRJCT NO.: NC0239.001 FILE: UNC-CHAP DRAWING NO: WCD-002D	157.5 162.0 165.0		7 T T T S	The Benton Down PVC comminal formula ameter copy of Biop of 10 tainless 010-in 5	iameter, Schedule Casing 5—inch Borehole entonite Cap ilter Pack 0—foot
I DWG DA		Not To Sca	0	f Screen	1

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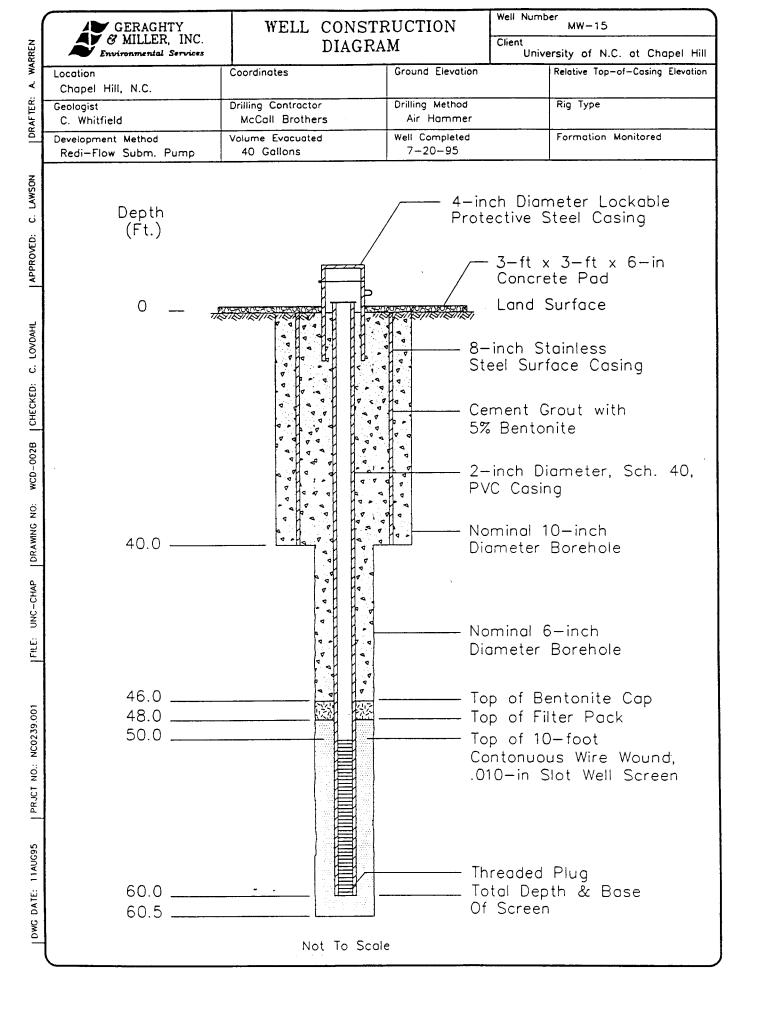
Primary ...

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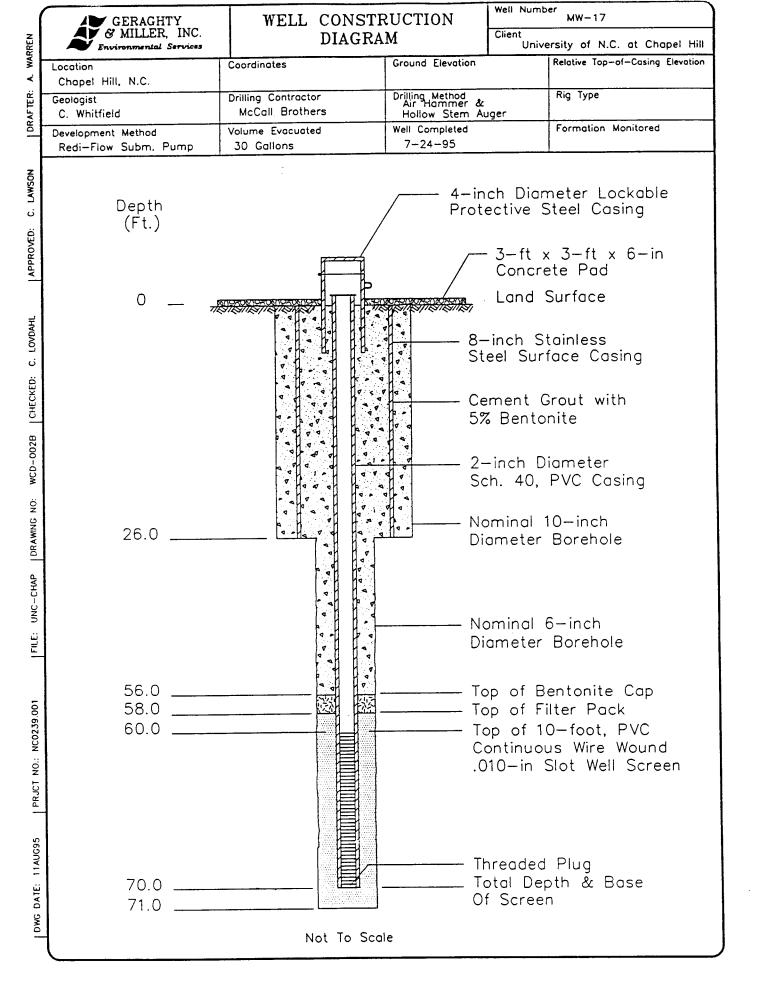
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Well Number MW-16 WELL CONSTRUCTION GERAGHTY & MILLER, INC. Client DIAGRAM University of N.C. at Chapel Hill Environmental Services Relative Top-of-Casing Elevation Ground Elevation Coordinates Location Chapel Hill, N.C. Drilling Method Air Hammer & Hollow Stem Auger Rig Type **Drilling Contractor** Geologist McCall Brothers C. Whitfield Formation Monitored Well Completed Volume Evacuated Development Method 7-21-95 Redi-Flow Subm. Pump 18 Gallons 4-inch Diameter Lockable Depth Protective Steel Casing (Ft.) $3-ft \times 3-ft \times 6-in$ Concrete Pad Land Surface 8—inch Stainless Steel Surface Casing Nominal 10-inch Diameter Borehole CHECKED: Top of Bentonite Cap 14.0 Cement Grout with 16.0 5% Bentonite Top of Filter Pack UNC-CHAP | DRAWING NO: 19.0 _ — 2—inch Diameter Sch. 40, PVC Casing Top of 10-foot, PVC 22.0 ___ Continuous Wire Wound .010-in Slot Well Screen Nominal 6-inch Diameter Borehole PRJCT NO.: NC0239.001 - Threaded Plug Base of Screen 42.0 ____ Backfill w/Bentonite Hole Plug DWG DATE: 11AUG95 ____ Total Depth 82.0 ___ Not To Scale

WARREN



(△ GERAGHTY	WELL CONSTR	UCTION	Well Number MW-18
WARREN	& MILLER, INC. Environmental Services	E MILLER, INC. DIAGRAM		Client University of N.C. at Chapel Hill
A. WAR	Location	Coordinates	Ground Elevation	Relative Top—of—Casing Elevation
DRAFTER: A	Chapel Hill, N.C. Geologist C. Whitfield	Drilling Contractor McCall Brothers	Drilling Method Air Rotary	Rig Type
a R	Development Method Redi-Flow Subm. Pump	Volume Evacuated 6 Gallons	Well Completed 7-19-95	Formation ^t Monitored
APPROVED: C. LAWSON	Depth (Ft.)			ech Diameter Lockable ective Steel Casing - 3—ft x 3—ft x 6—in Concrete Pad
	0 *			Land Surface
FILE: UNC-CHAP DRAWING NO: WCD-002A CHECKED: C. LOVDAHL	3.0 4.0 5.0		Nc Dia Ce 5% 2- Sc To To To To	ominal 6—inch ameter Borehole ement Grout with & Bentonite -inch Diameter ch. 40, PVC Casing op of Bentonite Cap op of Filter Pack op of 10—foot, PVC ontinuous Wire Wound 010—in Slot Well Screen
DWG DATE: 11AUG95 PRJCT NO.: NC0239.001	15.0 16.0	Not To Scal	To	nreaded Plug otal Depth & Base f Sceen

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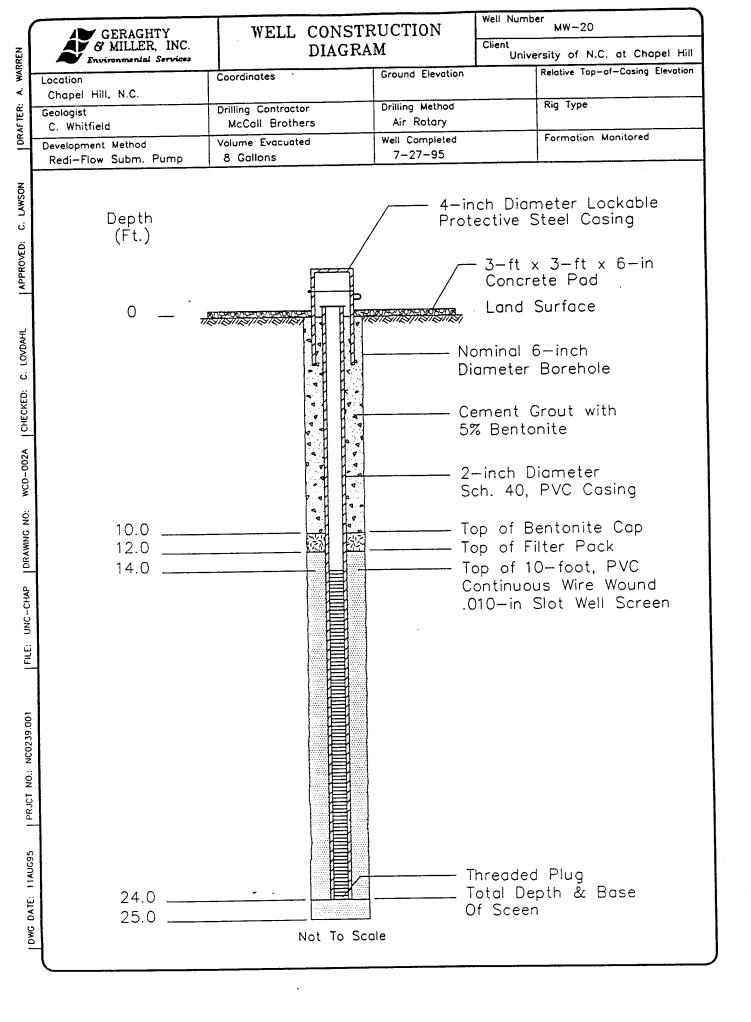
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7	GERAGHTY ### MILLER, INC.	WELL CONSTR DIAGRA		Well Number	MW-19
WARREN	Environmental Services	DIAGRA	IVI Ground Elevation		rsity of N.C. at Chapel Hill Relative Top—of—Casing Elevation
≺	Location Chapel Hill, N.C.				
DRAFTER:	Geologist C. Whitfield	Drilling Contractor McCall Brothers	Drilling Method Hollow Stern A	ıger	Rig Type
PR PR	Development Method Redi-Flow Subm. Pump	Volume Evacuated 8 Gallons	Well Completed 7-19-95		Formation Monitored
_	Redi-Flow Subm. Fump	8 Guilons			·
LAWSON	Depth				neter Lockable Steel Casing
ن <u>ن</u>	(Ft.)		/ 1100	ective c	steer odding
APPROVED:					x 3—ft x 6—in ete Pad
	0			Land S	Surface
LOVDAHL		TESTESTES TESTES TO THE PERSON OF THE PERSON			
c. Lov				minal 6 ameter	Borehole
CHECKED:				ment G Bento:	Grout with nite
- 1			0,		
WCD-002A					iameter PVC Casing
ÖN			50	.ii. +0,	1 ve easing
DRAWING N	2.5 3.5			•	entonite Cap Iter Pack
DRA	5.0				D-foot, PVC
-CHAP					us Wire Wound Slot Well Screen
ON O					
FILE					
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PRJCT NO.: NC0239.001					
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RJCT 1					
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0695			 -	r 4	
: 1A	10.0			nreaded otal Dep	Plug oth & Base
DWG DATE: 11AUG95	10.0		0	f Sceen	
DMQ I	-	Not To Sca	le		
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Married County Section Section



Well Number MW-21 GERAGHTY
& MILLER, INC. WELL CONSTRUCTION DIAGRAM University of N.C. at Chapel Hill Environmental Services Relative Top-of-Casing Elevation Ground Elevation Coordinates Location 472.55 Chapel Hill, N.C. Rig Type Drilling Method **Drilling Contractor** Geologist Air Rotary McCall Brothers C. Whitfield Well Completed Formation Monitored Volume Evacuated Development Method 7-21-95 Redi-Flow Subm. Pump 14 Gallons 4-inch Diameter Lockable Depth Protective Steel Casing (Ft.) $3-ft \times 3-ft \times 6-in$ Concrete Pad Land Surface Nominal 6-inch Diameter Borehole Cement Grout with 5% Bentonite 2-inch Diameter Sch. 40, PVC Casing 7.0 - Top of Bentonite Cap 9.0 Top of Filter Pack 11.0 Top of 10-foot, PVC Continuous Wire Wound .010-in Slot Well Screen PRJCT NO.: NC0239.001 DWG DATE: 11AUG95 Threaded Plug Total Depth & Base 21.0 Of Sceen 22.0 Not To Scale

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C. LAWSON

CHECKED:

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DRAWING

Well Number MW-22 WELL CONSTRUCTION **▼** GERAGHTY & MILLER, INC. Client DIAGRAM University of N.C. at Chapel Hill Environmental Services Relative Top-of-Casing Elevation Ground Elevation Coordinates Chapel Hill, N.C. Rig Type Drilling Method **Drilling Contractor** Geologist McCall Brothers Air Rotary C. Whitfield Volume Evacuated Well Completed Formation Monitored Development Method 7-26-95 6 Gallons Redi-Flow Subm. Pump 4-inch Diameter Lockable Depth Protective Steel Casing ن (Ft.) $3-ft \times 3-ft \times 6-in$ Concrete Pad Land Surface C. LOVDAHL Nominal 6-inch Diameter Borehole WCD-002A | CHECKED: Cement Grout with 5% Bentonite 2-inch Diameter Sch. 40, PVC Casing DRAWING NO: 2.0 Top of Bentonite Cap Top of Filter Pack 4.0 5.0 Top of 10-foot, PVC Continuous Wire Wound UNC-CHAP .010-in Slot Well Screen | PRJCT NO.: NC0239.001 DWG DATE: 13MAR96 Threaded Plug Total Depth & Base 10.0 _ Of Sceen Not To Scale

Well Number WELL CONSTRUCTION **GERAGHTY** & MILLER, INC. Client DIAGRAM University of N.C. at Chapel Hill Environmental Services Relative Top-of-Casing Elevation Ground Elevation Coordinates Chapel Hill, N.C. Drilling Method Air Hammer & Hollow Stem Auger Rig Type Drilling Contractor Geologist McCall Brothers C. Whitfield Formation Monitored Well Completed Development Method Volume Evacuated 8-17-95 Redi-Flow Subm. Pump 55 Gallons 4-inch Diameter Lockable Depth Protective Steel Casing (Ft.) $3-ft \times 3-ft \times 6-in$ Concrete Pad Land Surface 0 6-inch Galvanized Steel Surface Casing 8.0 Top of Bedrock Nominal 10-inch Diameter Borehole 17.0 2-inch Diameter Sch. 40, PVC Casing Cement Grout with 5% Bentonite Nominal 6-inch Diameter Borehole 69.5 _____ — Top of Bentonite Cap PRJCT NO.: NC0239.001 75.75_____ — Top of Filter Pack 78.0 _____ Top of 2-inch Diameter, 10-foot long, PVC Continuous Wire Wound .010-in Slot Well Screen DATE: 12MAR96 - Threaded Plug ____ Base of Screen 88.0 _____ — Total Depth 89.0 ____ Not To Scale

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LOVDAHL

WCD-002E

DRAWING NO:

UNC-CHAP

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UNC-CHAP

PRJCT NO.: NC0239.001

DATE:

____ Long. _____ Phone (919) 733-3221 Minor Besin WELL CONSTRUCTION RECORD Rasin Code GW-1 Ent DRILLING CONTRACTOR: McCall Brothers Header Ent__ STATE WELL CONSTRUCTION PERMIT NUMBER: N/A DRILLER REGISTRATION NUMBER: WELL LOCATION: (Show sketch of the location below) Nearest Town: Chapel Hill Durham Well MW-6 _____ County: ___ Airport Poad DRILLING LOG (Road, Community, or Supplied and Lat No.; 2. OWNER University of North Carolina at Chapel Hill Formation Description Sandy Clay From To ADDRESS 212 Finley Golf Course Rd. 17 Clayey Sand (Street or Route No.) Rock 27599 NC Chapel Hill Zip Coda المنتات ا City or Town 3. DATE DRILLED 4-11-95 USE OF WELL Monitoring 5. CUTTINGS COLLECTED YES NO NO 6. DOES WELL REPLACE EXISTING WELL? YES NOTE 7. STATIC WATER LEVEL Below Top of Casing: 9.55 FT. (Use "+" if Above Top of Casing) 8. TOP OF CASING IS 472.55 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type NYA Amount N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness Diameter or Weight/Ft. (Show direction and distance from at least two State Material 0 To 12.0 Ft. 2" Roads, or other map reference points) From----- To ----- Ft.-----____To _____ Ft.__ From ___ SITE 13. GROUT: LOCATION Method Depth Material From __O__To__10_0 Ft. Bentonite /Cement Tremie From _____ To _____Ft. ____ 14. SCREEN: Diameter Slot Size Material Depth From 12_0_To 22_0_Ft _2" in.0_010 in. _ PVC From _____ To _____ Ft. _____ in. _____ in. _____ From _____ To _____ Ft. _____ in. _____ in. _____ 15. SAND/GRAVEL PACK: Material

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

Size

From 10.0 To 22.0 Ft Torpedo Silica From _____ To ____ Ft. ____

Depth

SIGNATURE OF CONTRACTOR OF AGENT

16. REMARKS:

P.O. Box 29535 - Raleigh, N.C. 27626-0535	
Phone (919) 733-3221	Lat Long Pc
WELL CONSTRUCTION RECORD	Basin Code
	Header Ent. GW-1 Ent.
DRILLING CONTRACTOR: McCall Brothers	STATE WELL CONSTRUCTION
DRILLER REGISTRATION NUMBER: 003	PERMIT NUMBER: N/A .
WELL LOCATION: (Show sketch of the location below) Chapel Hill Country	Durham Well ^{MW-7}
Nearest lown:	unty:
Airport Road	DERTH DRILLING LOG
(Red Community, or Succivision and Little), 2. OWNER University of North Carolina at C	thapel Hill From To Formation Description
2. OWNER thiversity of North Carolina do c ADDRESS 212 Finley Golf Course Pd.	0 - 48 Rock
(Street or Route No.)	
T Chapel Hill NC 27	7599
	Coce
3. DATE DRILLED 4-21-95 USE OF WELL Monit	
4. TOTAL DEPTH	
6. DOES WELL REPLACE EXISTING WELL? YES	NO[X]
7. STATIC WATER LEVEL Below Top of Casing: 5 ag	ក
(Use "+" if Above Top of Casi	ing)
8. TOP OF CASING IS 475.01 FT. Above Land Surface Casing Terminated at/or below land surface is illegal unless a variance	6.
m in accordance with 154 NCAC 2C 0118	
9. YIELD (gpm): N/A METHOD OF TEST N/A	
10. WATER ZONES (depth):	
NI/A	N/A
11. CHLORINATION: Type N/A Amount	N/A If additional space is needed use back of form
12. CASING:	LOCATION SKETCH
Wall Thickness	Material (Show direction and distance from at least two State
Depth Diameter or Weight/Ft. From 0 To 22.0 Ft. 6.0" 0.25"	G.S. Roads, or other map reference points)
From $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5.5.
FromTo Ft	
13. GROUT:	SITE
Depth Material M	Method LOCATION
FromOTo35_O_FtBentenitetr	remie ////
From To Ft	Phillips High Set
, 14. SCREEN:	Horace Williams Airport
	Material 1888 1864
From 50.0 To 40.0 Ft 2 in. 0.010 in	s.s.
From To Ft in in	Chapela Chapel
FromToFt in in	
15. SAND/GRAVEL PACK:	
Depth Size Materi	
From 35.0 To 48.0 Ft Torpedo Sili	
From To Ft	
16. REMARKS:	

I DO HEREBY CERTIFY THAT THIS WELL-WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

SIGNATURE OF CONTRACTOR OR AGENT

DATE

P.O. Box 29535 - Raieign, N.U. 27625-0505 Phone (919) 733-3221

Lat Lang.	
Minor Basin	
Basin Code	
Header Ent	GW-1 Ent

1. .

WELL CONSTRUCTION RECORD DRILLING CONTRACTOR: McCall Brothers STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: WELL LOCATION: (Show sketch of the location below) Well MW-12 Nearest Town: Chapel Hill County: ___ Durham Rirport Poad DEFLING LOG (Fouc, Community, or Supplyision and LOTANO.) OWNER University of North Carolina at Chapel Hill From Formacon Description ADDRESS 212 Finley Golf Course Rd. Rock 0 - 22.0 (Suest or Route No.) Chapel Hill 7's Caca City or Town 4-13-95 USE OF WELL Monitoring 3. DATE DRILLED . TOTAL DEPTH ___22.0 5. CUTTINGS COLLECTED YES A NO *6. DOES WELL REPLACE EXISTING WELL? YES 7. STATIC WATER LEVEL Below Top of Casing: 3.82 FT. 8. TOP OF CASING IS 464 - 21 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): ___ 11. CHLORINATION: Type NYA Amount N/A If additional space is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness Depth Diameter or Weight/FL Material
From To 12.0 Ft. 2" Sch 40 PVC (Show direction and distance from at least two State Roads, or other map reference points) From----- To ----- Ft.--From ______To _____ Ft.____ 13. GROUT: LOCATION Depth Material Method
To 10.0 Ft. Bentonite/Grout tremie From _____ To _____Ft. ____ Diameter Sict Size 22.0 2 0.010 — Ft ____ in. ____in. _ Yo ___ From _____ To ____ Ft. ____ in. ____ in. ___

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Material

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV 5/91

15. SAND/GRAVEL PACK:

16. REMARKS:

From _____ To ____ Ft. ____ in. ____ in. _

From 10.0 To 22.0 Ft. Torpedo Silica From _____ To ____ Ft. ____

Size

P.O. Box 29535 - Raleigh, N.C. 27626-0535 Phone (919) 733-3221

Long. Minor Basin WELL CONSTRUCTION RECORD Basin Code DRILLING CONTRACTOR: __McCall Brothers Header Ent_ _____ GW-1 Ent STATE WELL CONSTRUCTION DRILLER REGISTRATION NUMBER: PERMIT NUMBER: 1. WELL LOCATION: (Show sketch of the location below) Well MW-13 Nearest Town: Chapel Hill County: ____ Durham Airport Road (Read, Community, or Subdivision and Lot No.) 2. OWNER University of North Carolina at Chapel Hill ADDRESS 112 Finley Golf Course Ri. (Sizeet or Route No.) Chapel Hill 3. DATE DRILLED 4-19- 95 Zis Coce _ USE OF WELL Monitoring 4. TOTAL DEPTH 23.0 5. CUTTINGS COLLECTED YES A NO 6. DOES WELL REPLACE EXISTING WELL? YES NO 3 7. STATIC WATER LEVEL Below Top of Casing: 6.62 FT. 8. TOP OF CASING IS 467.60 (Use "-" if Above Top of Casing)
FT. Above Land Surface" $^{\circ}$ Casing Terminsted at/or below land surface is lillegal unless a variance is issued $^{-}$ in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): 11. CHLORINATION: Type N/A Amount N/A If additional space is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness From 0 To 13.0 Ft. 2" Sch 40 PVC (Show direction and distance from at least two State Roads, or other map reference points) From—____ To —___ Ft.—___ From ______To _____ Ft.____ SITE 13. GROUT: LOCATION Material Method Depth From 0 To 11.0 Ft Bentonite/Grout Tremie From _____ To _____Ft. ______ 14. SCREEN: Diameter Slot Size Material Depth From <u>13.070 23.0</u> Ft <u>2</u> in. 0.010 in. <u>PVC</u> From _____ To ____ Ft. ____ in. ____ in. ____ in. From _____ To ____ Ft.____ in. ____ in. ____ 15. SAND/GRAVEL PACK: Material From 11.0 To 23.0 Ft Torpedo Silica From _____ To ____ Ft. ____ __ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NOAC 2C. WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner

GW-1 REV. 5/91

P.O. Box 29535 - Raleigh, N.C. 27626-0535 ____Long. _____ Phone (919) 733-3221 Minor Basin WELL CONSTRUCTION RECORD Basin Code _____ GW-1 Ent DRILLING CONTRACTOR: McCall Brothers Header Ent___ STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: WELL LOCATION: (Show sketch of the location below) Well MW-14 Nearest Town: ____ Chapel Hill ____ County: ____ Durham Airport Road DRILLING LOG (Ford, Community, or Supplyington and Lot No.) 2. OWNER University of North Carolina at Chapel Hill From Formation Description ADDRESS 212 Finley Golf Course Rd. Clay Sandy Clay 5.5 - 27.0 (Street or Routa No.) 27599 Chapel Hill Rock 27.0 - 175 Zis Coda Sinte 3. DATE DRILLED 8-11-95 USE OF WELL Monitoring 4. TOTAL DEPTH 175.0 5. CUTTINGS COLLECTED YES NO 6. DOESWELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 14.20 FT. 8. TOP OF CASING IS 481.67 (Use "+" if Above Top of Casing) FT. Above Land Surface" * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type N/A Amount N/A If additional space is needed use back of form 12. CASING: LOCATION SKETCH Depth Diameter or Weight/Ft Material
From 0 To 29.0 Ft. 8" 0.25" Steel (Show direction and distance from at least two State Roads, or other map reference points) From 0 To 165 0 Ft. 2" SCH 40 PVC From ______To _____ Ft.____ 13. GROUT: LOCATION Depth Material From 0 To 162 Ft Bentonite/Grout Tremie From _____ To _____Ft. _____ 14. SCREEN: Depth Diameter Slot Size Material From 165.70 175.0Ft 2 in. 0.010 in. PVC From _____ To _____ Ft.____ in. ____ in. ____ From _____ To _____ Ft._____ in. _____ in. _____ 15. SAND/GRAVEL PACK: Depth Size Material From 162.0 To 175.0 Ft. Torpedo Silica From _____ To ____ Ft. ____ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NOAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

SIGNATURE OF CONTRACTOR OR AGENT

DATE

P.O. Box 29535 - Raleigh, N.C. 27626-0535	Come in Serine in .
Phone (919) 733-3221	Let Long Pc
, ,	Minor Basin
WELL CONSTRUCTION RECORD	Basin Code
McCall Brothers	Header Ent GW-1 Ent
DRILLING CONTRACTOR: McCall Brothers	STATE WELL CONSTRUCTION
DRILLER REGISTRATION NUMBER: 003	PERMIT NUMBER: N/A .
WELL LOCATION: (Show sketch of the location below)	Durham Well MW-15
Nearest Town: Chapel Hill County:	
Airport Road	
(Rest, Community, or Succivision and Lot No.)	DEPTH DRILLING LOG
2. OWNER University of North Carolina at Chas	
ADDRESS 212 Finley Golf Course Sd.	0 - 60 Rock Granite
(Sitest or Fouts No.) Chane 1 H111 NC 27599	
Cheber harry	·
3. DATE DRILLED 7-20-195 USE OF WELL Menitori	
4. TOTAL DEPTH <u>60.5</u>	
5. CUTTINGS COLLECTED YES MO	
o. 5025 //2021 //2 //	<u> </u>
7. STATIC WATER LEVEL Below Top of Casing:FT	•
(Use "+" if Above Top of Casing)	
8. TOP OF CASING IS 465.04 FT. Above Land Surface	
 Casing Terminated at/or below land surface is illegal unless a variance is in accordance with 15A NCAC 2C .0118 	135090
9. YIELD (gpm): N/A METHOD OF TEST N/A	
10. WATER ZONES (depth):	
TO. WATER ZONES (deput).	
11 CHI OPINATION: Type N/A Amount N/A	<u> </u>
Tr. OnLOBINATION. Type	A If additional space-is needed use back of form
12. CASING:	
Wall Thickness	LOCATION SKETCH
Denth Diameter or Weight/Ft Ma	aterial (Show direction and distance from at least two State
From 0 To 40.0 Ft. 8" 0.25"	S.S. Roads, or other map reference points)
From— To 50 Ft.— 2" SCH 40 F	PVC MININGS
FromTo Ft	
13. GROUT:	SITE I
	LOCATION
— - F	
From 0 To 48.0 Ft. Bentonite/Grout Tr	
From ToFt	Horace William Friday
14. SCREEN:	Horace Williams Airport
50.Depth Diameter Slot Size Mater 90.010 PVC	rial 1488 146c.
From To Ft in in PVC	
From To Ft in in	Chapelague
From To Ft in in	
15 SAND/CRAVEL BACK:	

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

Material

Prom 48.0 To 60.5 Ft. Torpedo Silica

From _____ To ___ Ft. ___ _

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

. 16. REMARKS:

P.O. Box 29535 - Raleigh, N.C. 27626-0505 Phone (919) 733-3221

_____Long. ____ WELL CONSTRUCTION RECORD Resin Code ____ GW-1 Ent DRILLING CONTRACTOR: McCall Brothers Header Ent___ STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: 1. WELL LOCATION: (Show sketch of the location below) Well MW-16 Nearest Town: Chapel Hill County: Durham Airport Road DRILLING LOG (Read, Community, or Subdivision and Lot No.) 2. OWNER University of North Carolina at Chapel Hill From Formation Description ADDRESS 212 Finley Golf Course Rd. Sandy Clay Weathered Rock (Street or Route No.) Rock Chapel Hill Zip Code State City or Town 3. DATE DRILLED 7-21-95 USE OF WELL Monitoring 4. TOTAL DEPTH 42.0 5. CUTTINGS COLLECTED YES NO. 6. DOES WELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 5.94 F1. (Use "+" if Above Top of Casing) 8. TOP OF CASING IS 467_14 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): ____ 11. CHLORINATION: Type N/A Amount N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness Depth 16.0 Ft. — Diameter or Weight/Ft 8" 0.24" (Show direction and distance from at least two State Material Roads, or other map reference points) From ____ SITE 13. GROUT: LOCATION Method Material Depth From 0 To 19.0 Ft. Bentonite/Grout Tremie From _____ To _____Ft. _____ 14. SCREEN: Diameter Slot Size Material Depth From 22.0 To 42.0 Ft 2 in 0.010 in PVC From _____ To ____ Ft. ____ in. ____ in. ____ From _____ To ____ Ft.____ in. ____ in. ____ 15. SAND/GRAVEL PACK: From _____ To ____ Ft. ____ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

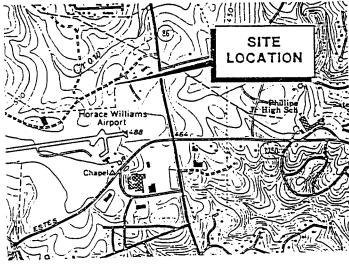
Division of Environmental Management - 0.0000		QUAD. NO.	SERIAL NO
P.O. Box 29535 - Raleigh, N.C. 27626-0535 Phone (919) 733-3221		Let L	eng Pc
• •		Minor Basin	
WELL CONSTRUCTION RECORD		L.	
ORILLING CONTRACTOR: McCall Brothers	,	Header Ent	GW-1 Ent
HILLING CONTRACTOR:	STATE WE	LL CONSTRUCTIO	N
RILLER REGISTRATION NUMBER: 003	PERMIT N	UMBER: N	[/] A .
WELL LOCATION: (Show sketch of the location below Nearest Town: Chapel Hill C		nam Well	MW-19
Airport Read	<u>, </u>		
(Rose, Community, or Supplyision and Lot No.)		DEPTH	DEILLING LOG
OWNER University of North Carolina at	Cuspel Hill	From To	Formation Description
ADDRESS 212 Finley Golf Course Rd.		0 - 4	Silty Clay
(Street or Foute No.)	27599	4 - 10	Weathered Rock
Chaper with			
DATE DRILLED 7-19-95 USE OF WELL Mon.			
TOTAL DEPTH: 10.0 CUTTINGS COLLECTED YES X NO			
THE PROPERTY OF THE PARTY OF TH	NOIAI		
STATIC WATER LEVEL Below Top of Casing: 3.03	FT.		
(Use "+" if Above Top of C.	asing)		
TOP OF CASING IS 473 on FT. Above Land Surfa	ice*		•
Casing Terminated at/or below land surface is illegal unless a vari	ance is issued		
in accordance with 15A NCAC 2C .0118 . YIELD (gpm): N/A METHOD OF TEST N/A			
. YIELD (gpm): WAS METHOD OF TEST			
0. WATER ZONES (depth):			
1. CHLORINATION: Type N/A Amount.	N/A	If additional space-is	needed use back of form
2. CASING:		1.004	TION SUFFICI
Wall Thicknes			TION SKETCH
Depth Diameter or Weight/Ft From 5.0 Ft 2" SCH 4'	Material (S D PVC		nce from at least two State
110111		Roads, or other map	•
From To Ft	· / /////		
FromTo Ft	. ——		SITE
3. GROUT:	7/2		LOCATION
	Method	CT2// go	LOUATION
From 0 _ To3.5 Ft. Bentonite /Grou	t Tremie 🕖	11)	11/2
From ToFt	<u></u>		Phillips If High Sch
4. SCREEN:	and the same	Horace Williams Airport	

Fro Fro 13. GF Fre Fre 14. SC Diameter Slot Size Material Depth From 5.0 To 10.0 Ft 2 in. 0.010in. PVC From _____ To ____ Ft. ____ in. ____ in. ____ in. ___ From _____ To ____ Ft ____ in. ____ in. _ 15. SAND/GRAVEL PACK:

From 3.5 To 10.0 Ft. Torpedo Silica

From _____ To_____ Ft._____

Size



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

_ GW-1 REV. 5/91

16. REMARKS:

P.O. Box 29535 - Raieign, N.C. 27626-0535 Phone (919) 733-3221 Minor Basin WELL CONSTRUCTION RECORD Basin Code DRILLING CONTRACTOR: McCall Brothers Header Ent._ GW-1 Ent STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: 1. WELL LOCATION: (Show sketch of the location below) Well MW-20 Nearest Town: Chapel Hill Durham _____ County: ___ Airport Road DRILLING LOG (Food, Community, or Supplication and Let No.) 2. OWNER University of North Carolina at Chapel Hill From Tc Formason Description ADDRESS 212 Finley Golf Course Rd. Silty Clay Clayey Sand (Street or Route No.) 27599 Chapel Hill NC Rock Zo Code Sinte City or Town 3. DATE DRILLED 7-27-95 USE OF WELL Monitoring 4. TOTAL DEPTH 25.0 5. CUTTINGS COLLECTED YES NO NO 6. DOES WELL REPLACE EXISTING WELL? YES NOTA STATIC WATER LEVEL Below Top of Casing: 11.58 FT. (Use "+" if Above Top of Casing) 8. TOP OF CASING IS 475.03 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A * 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type ____N/A ____Amount __ If additional space-is needed use back of form - 12 CASING: LOCATION SKETCH Wall Thickness Diameter or Weight/Ft. Material (Show direction and distance from at least two State Depth From 0 To 14 Ft. 2" SCH 40 PVC Roads, or other map reference points) From—— To —— Ft.———— From ______To ____ Ft.____ _ SITE 13. GROUT: LOCATION Depth Method Material From 0 To 12 Ft. Bentonite/Grout Tremie From _____ To _____Ft. ____ 14. SCREEN: Diameter Slot Size Material Depth From 14.4 o 24.0 Ft 2 in. 0.010 in. PVC From _____ To ____ Ft. ____ in. ____ in. ____ From _____ To _____ Ft. _____ in. ____ in. ____ 15. SAND/GRAVEL PACK: From _____ To ____ Ft. ____ 16. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OF AGENT

Bubmit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 5/91

Division of Environmental Management - Council ate.	_ e _ , , _ , ,
P.O. Box 29535 - Raleigh, N.C. 27626-0535	
Phone (919) 733-3221	

Division of Environmental Management - Cross-Nate, Ce			30,,011	CUAD. NO	SERIAL NO		
P.O. Box 29535 - Raleigh, N.C. 27626-0535 Phone (919) 733-3221		[i.et		Long.		Pc	
				Minor Basin			<u> </u>
WELL CO	ONSTRUC'	TION RECORD		Basin Code			
PRILLING CONTRACTOR:	McCall H	Brothers		Header Ent		GW-	1 Ent
DRILLING CONTRACTOR: McCall			STATE WEL	L CONSTRUC	CTION		
DRILLER REGISTRATION N	UMBER:	003	PERMIT NUI	MBER:	N/A	•	
- Charles Charles	. alreade ad th	as location below)					

RILLING CONTRACTOR: McCall Brothers	Header Ent	GW-1 Ent
SIA	TE WELL CONSTRUCTION N/A	•
. WELL LOCATION: (Show sketch of the location below) Nearest Town: County: County:	Durham Well M	W-21
Airport Road		
The state of the s	DEPTH	DEILLING LOG
university of North Carolina at Chapel H	ill From To	Formason Description
ADDRESS 212 Finley Golf Course Rd.	0 - 4	Silty Clay
(Street or Route No.)	4 - 20	Rock
Chapel Hill NC 27599 Chapel Hill NC 27599		
DATE DRILLED 7-21-95 USE OF WELL Monitoring		
TOTAL DEPTH 22.0 CUTTINGS COLLECTED YES NO		
DOES WELL REPLACE EXISTING WELL? YES NO A		
STATIC WATER LEVEL Below Top of Casing: 4.06 FT.		
/! lee "_" if Above Top of Casing)		
TOP OF CASING IS 463.28 FT. Above Land Surface*	•	•
Casing Terminated at/or below land surface is illegal unless a variance is issued as a continuous and a surface is issued as a continuous at a		
D. WATER ZONES (depth):		
1. CHLORINATION: Type <u>N/A</u> Amount <u>N/A</u>	If additional space-is ne-	eded use back of form
2. CASING:		
Wall Thickness	LOCATIO	N SKETCH_
	(Show direction and distance	from at least two State
From To Ft Ft.	Roads, or other map ref	erence points)
From——— To——— Ft.—————————	THE STATE OF THE S	
FromTo Ft		36)
3. GROUT:		SITE
Depth Material Method	(1) (CZ2)	LUCATION
From 0 To 9.0 Ft. Bentonite/Grout Tremi	e /////	
From ToFt		Phillips If High Sch
4. SCREEN:	Horace Williams Airport	
Depth Diameter Slot Size Material	488	162
From 11.0 21.0 2 in. 0.010 in. PVC	300	
From To Ft in in	Chapela	
From To Ft in in		
5. SAND/GRAVEL PACK:		
Depth Size Material	AND STATE OF THE S	
Depth Size Material From 9 To 22.0 Ft. Torpedo Silica		是少人,大学是
From To Ft	· Print to the same that are	
6. REMARKS:		
		-
I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN A	ACCORDANCE WITH 15A INCA	C 2C, WELL
CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECOP	זט האס בכבא ראטיטבט 10 1 ז	RE MELL OMNER.
1/4////		./ /

SIGNATURE OF CONTRACTOR OR AGENT
Submit original to Timision of Environmental Management and copy to well owner.

GW-1 PEV. 5/91

Division of Environmental Management - Groundwater Section P.O. Box 29535 - Raleigh, N.C. 27626-0535 Phone (919) 733-3221

CUAD. NO.		_ SERIAL NO	
iet	Long.		Pc
Minor Basin			
Basin Code_			
Header Ent_		GW-	1 Ent

WELL CONSTRUCTION RECORD	Basin Code
DRILLING CONTRACTOR: _ McCall Brothers	Header Ent GW-1 Ent
JHILLING CONTRACTOR.	STATE WELL CONSTRUCTION
ORILLER REGISTRATION NUMBER: 003	PERMIT NUMBER: N/A .
WELL LOCATION: (Show sketch of the location below)	Well MW-14 Durham
Nearest Town: Chapel Hill County: _	
Airport Road	
(Ford Community, or Supplyision and Lot No.)	DEFTH DELLING LOG
CWNER_University of North Carolina at Chape ADDRESS 211 Finley Golf Course Rd.	
ADDRESS 211 SIRLEY GOLF COLLEGE ACT	0 - 5.5 Clay 5.5 - 27.0 Sandy Clay
(Street or Route No., Chapel Hill NC 27599	27.0 - 175 Rock
City or Town State Zip Code	
B. DATE DRILLED 8-11-95 USE OF WELL Monitoring	ng
TOTAL DEPTH 175.0	
E. CUTTINGS COLLECTED YES X NO	
5. DOESWELL REPLACE EXISTING WELL? YES NO	
7. STATIC WATER LEVEL Below Top of Casing: 14.20 FT.	
(Use "+" if Above Top of Casing) B. TOP OF CASING IS 481.67 FT. Above Land Surface"	
B. TOPOF CASING IS FT. Acove Land Surface Casing Terminated at/or below land surface is illegal unless a variance is is	ssued
in accordance with 15A NCAC 2C R118	
9. YIELD (gpm): N/A METHOD OF TEST N/A	
io. WATER ZONES (depth):	
11. CHLORINATION: Type N/A Amount N/A	If additional space is needed use back of form
12. CASING:	
Wall Thickness	LOCATION SKETCH
Depth Diameter or Weight/FL Mate	
From To Fi. — — —	Roads, or other map reference points)
From 0 To 165 0 Ft. 2" SCH 40 PV	
FromTo Ft	— 2)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
13. GROUT:	SITE
Depth Material Method	COLATION
From 0 To 162 Ft. Bentonite/Grout Tre	amie
From ToFt	Horace William
14. SCREEN:	Horace Williams Airport
Depth Diameter Slot Size Materia	al 166.
From <u>165.70 175.0Ft 2</u> in 0.010 in PVC	
From To Ft in in	Chapelo
From To Ft in in	
15. SANDÆRAVEL PACK:	
Depth Size Material	
From 162.0 To 175.0 Ft. Torpedo Silica	
From To Ft	
16. REMARKS:	
I DO HEREBY CERTIFY THAT THIS WELL WA'S CONSTRUCTED	D IN ACCORDANCE WITH 15A NCAC 2C, WELL
CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RE	ECORD HAS EEEN PROVIDED TO THE WELL OWNER.
111	
	"
	9/72/96

GW-1 REV. 581

district original to Division of Environmental Management and copy to well owner.

Division of Environmental Management - Groundwater Section P.O. Box 29535 - Raleigh, N.C. 27626-0535

Let. Long. Phone (919) 733-3221 Minor Basin WELL CONSTRUCTION RECORD Basin Code ___ GW-1 Ent Header Ent____ DRILLING CONTRACTOR: McCall Brothers STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: 1. WELL LOCATION: (Show sketch of the location below) Well MW-14 Nearest Town: Chapel Hill County: ____ Airport Road DRILLING LOG (Faud Community, or Supplyision and Lot No.) 2. OWNER University of North Carolina at Chapel Hill From Formazon Description ADDRESS 210 Finley Golf Course Rd. Clay 5.5 - 27.0 Sandy Clay (Street or Route No., Rock 27.0 - 175 Zip Coda Sinte Cay or Town 3. DATE DRILLED 8-11-95 USE OF WELL Monitoring 4. TOTAL DEPTH 175.0 5. CUTTINGS COLLECTED YES NO NO 6. DOESWELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 14.20 FT. (Use "+" if Above Top of Casing) 8. TOP OF CASING IS 481.67 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type N/A Amount N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness (Show direction and distance from at least two State Diameter or Weight/Ft Material Steel Roads, or other map reference points) From 0 To 165 0 Ft. 2" SCH 40 PVC From ______To _____ Ft.____ 13. GROUT: LOCATION Material Method Depth From 0 To 162 Ft. Bentonite/Grout Tremie From _____ To _____Ft. _____ 14. SCREEN: Diameter Slot Size Material Depth From 165.70 175.0Ft 2 in 0.010 in PVC From _____ To ____ Ft. ____ in. ____ in. ____ From _____ To _____ Ft. _____ in. ____ in. _____ 15. SAND/GRAVEL PACK: Material Size From 162.0 To 175.0 Ft Torpedo Silica From _____ To ____ Ft. ____ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NOAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

QUAD. NO. _____ SERIAL NO. ____

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

P.O. Box 29535 - Raleign, N.C. 27626-0535

Phone (919) 733-3221	Long Pc
WELL CONSTRUCTION RECORD	Minor Basin Basin Code
	Header Ent. GW-1 Ent
DRILLING CONTRACTOR: McCall Brothers	TATE WELL CONSTRUCTION
	ERMIT NUMBER: N/A .
. WELL LOCATION: (Show sketch of the location below)	Durham Well MW-22
Nearest Town: Chapel Hill County:	With the second
Airport Road	The state of the s
(Road, Community, or Supervision and Lot No.)	DEPTH DRILLING LOG
CWNER University of North Carolina at Chapel ADDRESS 212 Finley Golf Course Rd.	Hill From To Formation Description 0 - 2 Silty Clay
ADDRESS 212 FINITEY GOTT COLLEGE AGE (Street or Route No.)	
Chapel Hill NC 27599	
Gry or Town State Za Code 3. DATE DRILLED 7-26-95 USE OF WELL Monitoring	<u> </u>
TOTAL DEFTH	
S. CUTTINGS COLLECTED YES X NO	
DOES WELL REPLACE EXISTING WELL? YES NO	
7. STATIC WATER LEVEL Below Top of Casing: 3.16 FT. (Use *-" if Above Top of Casing)	
B. TOPOF CASING IS 460.78 FT. Above Land Surface*	
Casing Terminated at/or below land surface is illegal unless a variance is iss	sued
in accordance with 15A NCAC 2C .0118	
. , , , , , , , , , , , , , , , , , , ,	
10. WATER ZONES (depth):	
N'/A A N/A	If additional space is needed use back of form
11. CHLORINATION: Type N/A Amount N/A	II accidental space is the edge base back of form
12. CASING:	LOCATION SKETCH
Wall Thickness Depth Diameter or Weight/Ft. Materi	
Depth Diameter or Weight/Ft Mater	•
From To Ft	
From To Ft	
13. GROUT:	
Depth Material Method	LOCATION
Depth Material Method From 0 To 4.0 Ft. Bentonite/ Grout Tr	cemie/))))
From ToFt	Phillipp
14. SCREEN:	Horace Williams Airport
Depth Diameter Sict Size Material	
From 5.0 To 10.0 Ft 2 in. 0.010 in. PVC	
From To Ft in in	Chapelo III
From To Ft in in	
15. SAND/GRAVEL PACK:	
Depth Size Material	
From 4.0 To 10.0 Ft. Torpedo Silica	
From To Ft	SALTO.
16. REMARKS:	
	•
I DO HEREBY CERTIFY THAT THIS WELL-WAS CONSTRUCTED	IN ACCORDANCE WITH 15A NCAC 2C, WELL
CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS REC	CORD HAS BEEN PHOVIDED TO THE WELL CWNEH.

GW-1 REV. 5/91

SIGNATURE OF CONTRACTOR OR AGENT
Submit original to Civision of Environmental Management and copy to well owner.

Plaigible of Ellalforming translationer and __ Senial NJ. _ P.O. Box 29535 - Raleigh, N.C. 27626-0535 Long. Phone (919) 733-3221 Minor Besin WELL CONSTRUCTION RECORD Basin Code ____ DRILLING CONTRACTOR: __McCall Brothers __ GW-1 Ent Header Ent__ STATE WELL CONSTRUCTION PERMIT NUMBER: N/A DRILLER REGISTRATION NUMBER: WEIL LOCATION: (Show sketch of the location below)
 Nearest Town: _____ Chapel Hill _____ County: _____ Durham Well MW-23 Airport Road DFILLING LOG (Read, Community, or Subdivision and Lat No.) 2. OWNER University of North Carolina at Chapel Hill From Formason Description ADDRESS 212 Finley Golf Course Rd. Silty Clay 17 0 -(Street or Route No.) 17 - 89 Rock 27599 NC Chapel Hill Zie Coca Sinte 3. DATE DRILLED 8-17-95 USE OF WELL Monitoring 34. TOTAL DEPTH 89.0 5. CUTTINGS COLLECTED YES X NO NO 6. DOES WELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 2,32 FT. 8. TOP OF CASING IS 458.92 FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm):_N/A___METHOD OF TEST ___N/A__ 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type N/A Amount N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness (Show direction and distance from at least two State Depth Diameter 6"
To 78.0 Ft. 2" Material Diameter or Weight/Ft __0.25" G.S. Roads, or other map reference points) SCH 40 _____To_____ Ft.___ From ___ 13. GROUT: LOCATION Materia! Depth From __O__ To _75.75 Ft. Bentonite/Grout : Tremie From _____ To _____Ft. _____ -14. SCREEN: Depth Diameter Slot Size From 78.0To 88.0 Ft 2 in. 0.010 in. PVC From _____ To ____ Ft. ____ in. ____ in. ____ From _____ To _____ Ft.____ in. ____ in. ____ in. 15. SAND/GRAVEL PACK: Material Size From 75.75 89.0 Ft. Torpedo Silica From _____ To ____ Ft. ____ _ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 5/91

P.O. Box 29535 - Raleigh, N.C. 27625-0535 Phone (919) 733-3221	CUAD. NOLong.	SERIAL NO Pc
WELL CONSTRUCTION RECORD	Minor Basin	
	Basin Code	CWAF
DRILLING CONTRACTOR: McCall Brothers		GW-1 Ent
ORILLER REGISTRATION NUMBER: 003	STATE WELL CONSTRUCTION PERMIT NUMBER: N/A	•
Nearest Town: Chapel Hill County:	Durham Well MW-24	-
Airport Road		
(Foat, Community, or Suppliviolen and Lot No.,	DEFTH	EFILLING LCG
OWNER University of North Carolina at Chap	From Ta	Formason Description Slity Clay
ADDRESS 212 Finley Golf Course Rd.	11 - 200	Rock
(Street or Route No.) Chapel Hill NC 27599		NOCK .
City of Town Size Zo Code		
. DATE DRILLED 1-19-96 USE OF WELL Monitori	<u>ng</u>	
TOTAL DEETH 200 0		
CUTTINGS COLLECTED YES NO NO NO	[A]	
. DOES WELL REPLACE EXISTING WELL? YES NO . STATIC WATER LEVEL Below Top of Casing: 2.48 FT.		
(Use "+" if Above Top of Casing)		
. TOP OF CASING IS 465.32 FT. Above Land Surface*		•
Casing Terminated at/or below land surface is illegal unless a variance is	Issued	
in accordance with 15A NCAC 2C .0118 P. YIELD (gpm): N/A METHOD OF TEST N/A		
0. WATER ZONES (depth):		
o. 11/1/21/2014L0 (dopul).		
11. CHLORINATION: Type <u>N/A</u> Amount <u>N/A</u>	If additional space-is neede	d use back of form
12. CASING:		
	LOCATION	SKETCH
	terial (Show direction and distance fro	m at least two State
From 0 To 175.00 Ft. 4.0" SCH 40	PVC Roads, or other map refere	
From To Ft		
FromTo Ft		LA LA
3. GROUT:	(EX)) = 32 / (SITE
Depth Material Metho		LOCATION
From 0 To 173.0 Ft Bentonite/Grout Tre	mie //// Fire Time	E THE TANK
From To Ft		Phillips If High Sen
14. SCREEN:	Horace Williams Airport	
Depth Diameter Slot Size Mater		
From <u>175.</u> Go <u>195.</u> Gt <u>4.0</u> in. <u>0.010</u> in. <u>PV</u>		
From To Ft in in	(m) \ 27 (1) (200) m \ (1)	
From To Ft in in		
15. SAND/GRAVEL PACK:		
Depth Size Material	The second secon	N. C. FRIZZ
From 173 To 200 Ft. Torpedo Silica		(人)人(人)
From To Ft	·	
16. REMARKS:		
	D IN ACCORDANCE MITTLESS NO. C. C.	- \451

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPYOF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 5/91

£	P.O. Box 29535 - Raleigh, N.C. 27626-0535 Phone (919) 733-3221	- '	Lat Long.	SERIAL NOPe
1	WELL CONSTRUCTION RECORD		Minor Basin	
1	ILLING CONTRACTOR: McCall Brothers		Header Ent	GW-1 Ent
DK 7	•	STATE WEL	L CONSTRUCTION	
DR	ILLER REGISTRATION NUMBER: 003	PERMIT NUM	MBER: N/A	•
_=	WELL LOCATION: (Show sketch of the location below)			
11.	Nearest Town: Chapel Hill County:	Durha	m Well M	<u>w</u> - 25
Ā	Airport Road			
7	(Rest, Community, or Supplyision and Lot No.)	 al #ill	<u>CEPTH</u>	DEILLING LOG
2.	CWNER University of North Carolina at Chap ADDRESS 212 Finley Golf Course Rd.	ei niii Fr	em To) - 13	Formation Description Silty Clay
•	(Street or Route No.)			Weathered Rock
7	Chapel Hill NC 27599			
ż	City or Town State Zip Code			
3.	DATE DRILLED 1-23-96 USE OF WELL Monitori TOTAL DEPTH 15.0			
5.		***		
6 .	DOES WELL REPLACE EXISTING WELL? YES NO			
■7.	STATIC WATER LEVEL Below Top of Casing: 6.92 FT. (Use "+" if Above Top of Casing)			
8.	TOP OF CASING IS 458.74 FT. Above Land Surface*			
, C1	ising Terminated at/or below land surface is illegal unless a variance is i	ssued		
in	YIELD (gpm): N/A METHOD OF TEST N/A			
_	WATER ZONES (depth):			
_	· ' · · · · · · · · · · · · · · · · · ·			
	CHLORINATION: TypeN/A AmountN/A	<u> </u>	additional space-is need	ed use back of form
⁻ 12.	CASING:		10047101	CKETOU
Ŧ	Wall Thickness	erial (Shov	<u>LOCATION</u> direction and distance for	
* *.	From 0 Depth 5.0 Ft. Diameter cr Weight/FL Mat SCH 40	DUC .	Roads, or other map refer	
	From To Ft		LI LIVE	
i	FromTo Ft	<u> </u>		
~ 13.	GROUT:	ITEX		SITE LOCATION
1	Depth Material Metho		Gr. Constant	LUCATION
1	From 0 To 4.0 Ft Bentonite/Grout Tr	emie ////	1 Satisfaction	
4.4	From To Ft		Horace Williams	Je High Sell
事 14.	SCREEN: Depth Diameter Slot Size Materi	عام الم	Airport 488	66.
£	From 5.0 To 15.0Ft 2 in. 0.010 in. PVC			一一の第一個
3	From To Ft in in		Chapela Chapela	
3	From To Ft in in	(所)		
1 5.	SAND/GRAVEL PACK:			
•	Prom 4.0 To 15.0 Ft. Torpedo Silica	ES.		
		— A		学が、大学で
_ 10	From To Ft			
7 ID.	REMARKS:	. 1211		

I DOHEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPYTOF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

SIGNATURE OF CONTRACTOR OF AGENT

DATE

Submit original to Division of Environmental Management and copy to well swiner.

PINIZION OF EUAILOUGHER IN THE LANGUE CONTROL ___ SĒRIAL NO. _ P.O. Box 29535 - Raleigh, N.C. 27626-0535 ___Long. _____ Phone (919) 733-3221 WELL CONSTRUCTION RECORD Resin Code ___ DRILLING CONTRACTOR: McCall Brothers Header Ent.... STATE WELL CONSTRUCTION PERMIT NUMBER: DRILLER REGISTRATION NUMBER: WELL LOCATION: (Show sketch of the location below) Well MW-26 Nearest Town: Chapel Hill County: Durham Airport Road DRILLING LOG DEPTH (Read, Community, or Supplivision and Lot No.) 2. CWNER University of North Carolina at Chapel Hill From Formation Description To ADDRESS 212 Finley Golf Course Rd. Silty Clay Weathered Rock 13 - 14.5 (Street or Route No.) 27599 Rock Chapel Hill 14.5 - 180 Zie Coce State City or Town 3. DATE DRILLED 2-5-96 USE OF WELL Monitoring 5. CUTTINGS COLLECTED YES NO 6. DOES WELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 5.29 FT. 8. TOP OF CASING IS 458.79 (Use *+* if Above Top of Casing) FT. Above Land Surface* * Casing Terminated at/or below land surface is illegal unless a variance is issued In accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type ____N/A ___ Amount __N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness Depth Diameter or Weight/Ft 0.25

To 75.0 Ft. 2 SCH 40 (Show direction and distance from at least two State Material Ğ.S. Roads, or other map reference points) PVC From ______To ____ Ft._ 13. GROUT: LOCATION Depth Material From 0 To 70.0Ft Bentonite/Grout Tremie From _____ To _____Ft. ______ 14. SCREEN: Depth Diameter Slot Size Material From 75.070 90.0 Ft 2 in. 0.010 in. PVC From _____ To ____ Ft. ____ in. ____ in. ____ From _____ To ____ Ft. ____ in. ____ in. ____ 15. SAND/GRAVEL PACK:

Depth Size Material
From 70.0 To 100.0 Ft. Torpedo Silica From _____ To ____ Ft. ____ 16. REMARKS:

I DO HEREBY CERTIFY THAT THIS WELL-WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OF AGENT

DIVISION OF EUALIOUMBURG Managament P.O. Box 29535 - Raleigh, N.C. 27626-0535

QUAD. NO. _____ SERIAL NO. ___ _____Long. Phone (919) 733-3221 Minor Basin WELL CONSTRUCTION RECORD Besin Code__ DRILLING CONTRACTOR: McCall Brothers _____ GW-1 Ent Header Ent___ STATE WELL CONSTRUCTION DRILLER REGISTRATION NUMBER: PERMIT NUMBER: WELL LOCATION: (Show sketch of the location below) Nearest Town: Chapel Hill _____County: ____Durham Well MW-28 Airport Road _ERILLING LOG (Read, Community, or Subdivision and Lot No.) 2. OWNER University of North Carolina at Chapel Hill From Formation Description ADDRESS 212 Finley Golf Course Rd. Silty Clay (Street or Route No.) Rock Chapel Hill ИC Zia Coce City or Town State 3. DATE DRILLED 1-15-96 USE OF WELL Monitoring 4. TOTAL DEPTH ____46.0 5. CUTTINGS COLLECTED YES A NOTI 6. DOES WELL REPLACE EXISTING WELL? YES NO A 7. STATIC WATER LEVEL Below Top of Casing: 8.39 FT. 8. TOPOF CASING IS 480.40 (Use "-" if Above Top of Casing)
FT. Above Land Surface" * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118 9. YIELD (gpm): N/A METHOD OF TEST N/A 10. WATER ZONES (depth): _____ 11. CHLORINATION: Type N/A Amount N/A If additional space-is needed use back of form 12. CASING: LOCATION SKETCH Wall Thickness From 0 To 36.0 Ft 2 SCH 40 PVC (Show direction and distance from at least two State Roads, or other map reference points) From----- To------ Ft.------From ______ To ____ Ft.____ 13. GROUT: LOCATION Depth Material Method From _0 _ To _33.0 Ft. Bentonite/Grout _Tremie_ From _____ To ____Ft. _______ 14. SCREEN: Depth Diameter Slot Size Material From 36.0 To 46.0 Ft 2 in. 0.010 in. PVC From _____ To _____ Ft. _____ in. _____ in. _____ From _____ To ____ Ft.____ in. ____ in. ____ 15. SAND/GRAVEL PACK: Material Size Depth From 33.0 To 46.0 Ft. Torpedo Silica From _____ To ____ Ft. ____ 16. REMARKS: I DO HEREBY CERTIFY THAT THIS WELL-WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL

CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL CWNER.

SIGNATURE OF CONTRACTOR OF AGENT

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 5/91