

# UNC Naval Products

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TWX 710/432-1243

IN REPLY PLEASE REFER TO:  
NIS 90-11-08

November 8, 1990

Mr. Charles Haughney  
Fuel Cycle Safety Branch  
Mail Stop WF1 6H3  
Division of Fuel Cycle & Medical  
and Commercial Use Safety  
U.S. Nuclear Regulatory Commission  
Washington DC 20555

- Ref: (1) Letter From D. Birks To J. Berger dated 8-21-90
- (2) Letter From D. Birks To J. Berger dated 9-10-90
- (3) Letter From D. Birks To C. Haughney dated 9-28-90
- (4) Letter From D. Birks To C. Haughney dated 10-22-90

Dear Sir:

I have enclosed additional data which has been received from CEP regarding our leach field analysis. All other pages remain unchanged from those enclosed with Ref. (4).

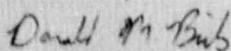
The referenced letters (1) and (2) provide the appropriate sketches which show sample locations. As before, please contact CEP promptly if you desire any additional split samples.

The address is:

Controls for Environmental Pollution  
Attention: Jim Mueller  
1925 Rosina, P.O. Box 5351  
Santa Fe, NM 87502  
Phone: (505) 982-9841  
Fax: (505) 982-9289

I will continue to send data as it becomes available. Please call me at (203) 848-1511, ext. 2559 if you have any questions.

Sincerely,



Donald M. Birks,  
Nuclear & Industrial Safety

- cc: D. Gallaway, CT DEP
- J. Roth, NRC, Region I
- J. Berger, ORAU
- R. Gregg
- D. Luster

9011160052 901108  
PDR ADOCK 07000371  
C PDC

**UNC 1990 LEACHFIELD SAMPLING DATA**

LOC.	DEPTH FEET	BLOWS/6" 140# HAMMER	COMMENTS	G. ALPHA	Ra-226	ISO. U (pCi/gm or l)			OTHER
				pCi/gm or l	pCi/L	U-234	U-235	U-238	
W-11	SURF			3.3 ± 0.9					
	11-13	2-3-3-6		25.8 ± 2.1					
	13-15	5-7-7-8		2.8 ± 0.8					
	15-17	12-8-7-11		2.0 ± 0.7					
	17-19	11-13-14-28		1.8 ± 0.7					
	19-21	16-20-20-14		9.4 ± 1.3					
	21-23	14-30-18-20		1.6 ± 0.7					
	23-25	17-18-27-34		3.6 ± 0.9					
	WAT-25			3089 ±149	3.8 ± 2.6	2910±200	164 ± 20	0.97 ± .11	GR BETA 628 ± 30
W-3	SURF			1.5 ± 0.8					
	15-17	4-4-5-10		2.1 ± 0.6					
	17-19	7-9-12-16		3.9 ± 0.8					
	19-21	8-14-20-25		2.5 ± 0.7					
	21-23	23-40-45-58		2.4 ± 0.7					
	23-25	25-28-23-22		5.8 ± 1.0					
	25-27	12-4-12-17		8.9 ± 1.2					
	WAT-27			291 ± 28	2.4 ± 1.0	264 ± 12	5.5 ± 1.7	0.37 ± .15	GR BETA 82 ± 13
W-8	SURF			4.0 ± 1.0					
	14-16	3-3-5-9		236.8 ±4.4					
	16-18	4-4-8-11		3.4 ± 0.9					
	18-20	7-7-7-9		15.1 ± 1.7					
	20-22	10-15-11-12		27 ± 2.2					
	22-24	10-10-14-15		2.4 ± 0.8					
	24-26	11-11-14-16		2.9 ± 0.6					
	WAT-26			1817 ±115					GR BETA 499 ± 27
W-12	SURF			1.3 ± 0.7					
	15-17	12-21-21-21		111.6 ±4.4					
	17-19	29-35-36-39		658 ± 10					
	19-21	10-19-21-24		1.5 ± 0.7					
	21-23	14-19-20-19		1.7 ± 0.7					
	23-25	6-9-18-25		3.0 ± 0.8					
	WAT-25			2307 ±129	12 ± 3.8	2240 ± 78	66.9±12.6	1.5 ± .33	GR BETA 786 ± 33

**UNC 1990 LEACHFIELD SAMPLING DATA**

LOC.	DEPTH	BLOWS/6" 140# HAMMER	COMMENTS	G. ALPHA	Ra-226 pCi/L	ISO. U (pCi/gm or l)			OTHER
	FEET			pCi/gm or l		U-234	U-235	U-238	
W-4	SURF			1.5 ± 0.7					
	16-18	10-16-14-27	WELL WAS WET	4.8 ± 1.0					
	18-20	FF	NO SAMPLE - STOPPED						
W-5	SURF			2.2 ± 0.8					
	16-18	7-10-14-22		20.7 ± 1.9					
	18-20	10-20-31-20		6.1 ± 1.1					
	20-22	100-RF	NO SAMPLE - STOPPED						
W-9	SURF			2.4 ± 0.7					
	14-16	5-5-10-11		86.7 ± 3.9					
	16-18	7-8-10-12		3.6 ± 0.9					
	18-20	9-7-13-11		3.2 ± 0.8					
	20-22	10-13-14-17		2.2 ± 0.7					
	22-24	10-10-14-17		3.0 ± 0.8					
	24-26	17-17-32-34		1.5 ± 0.6					
	WAT-24			1537 ± 106					GR BETA 313 ± 22
W-7	SURF			4.0 ± 0.9					
	12-14	6-3-3-4		134.6 ± 4.8					
	14-16	2-2-2-2		9.3 ± 1.4					
	16-18	2-2-10-20		4.8 ± 1.0					
	18-20	15-13-11-13		3.6 ± 0.9					
	20-22	10-13-13-27		7.8 ± 1.3					
	22-24	13-12-12-10		2.1 ± 0.8					
	WAT-24			1620 ± 109					GR BETA 612 ± 29
W-10	SURF			1.8 ± 0.8					
	15-17	3-4-6-11		21.3 ± 1.9					
	17-19	9-9-10-13		32.2 ± 2.4					
	19-21	11-9-14-28		5.4 ± 1.0					
	21-23	23-27-27-34		8.8 ± 1.3					
	23-25	17-26-24-25		3.6 ± 0.9					
	WAT-24			10380 ± 229	2.5 ± 1.0	10080 ± 180	294 ± 28	28 ± 6	GR BETA 744 ± 32

**UNC 1990 LEACHFIELD SAMPLING DATA**

LOC.	DEPTH FEET	BLOWS/6" 300# HAMMER	COMMENTS	G. ALPHA pCi/gm or l	TOTAL U	ISO. U (pCi/gm or l)			OTHER
						U-234	U-235	U-238	
O-41	0-2	2-3-3-5		1.4 ± 0.6					
	2-4	5-9-15-18		0.6 ± 0.5					
	4-6	4-6-9-11		8.6 ± 1.3					
	6-8	4-15-14-11		2.2 ± 0.7					
	8-10	8-11-24-5		0.9 ± 0.6					
	10-12	5-7-10-14		2.7 ± 0.9					
O-73	0-2	4-19-30-38		1.8 ± 0.7					
	2-4	3-8-7-28		3.5 ± 0.9					
	4-6	8-11-11-13		2.2 ± 0.8					
	6-8	11-17-11-5		4.4 ± 1.0					
	3-10	5-8-6-8		3.1 ± 0.9					
	10-12	10-14-14-26		2.3 ± 0.8					
O-72	0-2	8-27-41-48	THIS IS AN EXTRA SAMPLE LOCATION	2.5 ± 0.8					
	2-4	28-RF		6.1 ± 1.1					
	4-6	14-RF		1.4 ± 0.7					
L-1		Scoop sample from main Distribution point in Field 1.		4.0 ± 0.9					
Pipe-1		Composite soil sample from all pipe sections removed from Field 1.		1149 ± 13					