

QUIVIRA MINING COMPANY

POST OFFICE BOX 218 • GRANTS, NEW MEXICO 87020

February 21, 1997

Certified Mail

Return Receipt Requested (P 268 360 590)

Mr. Joe Holonich
U.S. Nuclear Regulatory Commission
Uranium Recovery Branch
Division of Low Level Waste Management & Decommissioning
M/S T7J9
11555 Rockville Pike
Rockville, MD 20850

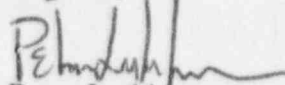
Re: License SUA-1473
Docket No. 40-8905

Dear Mr. Holonich,

Pursuant to Ms. Elaine Brummet's request for Quivira to provide additional information regarding the radon flux monitoring program at the Ambrosia Lake facility, please find attached the sample recount data for impoundment #1 and impoundment #2.

If you have any questions, please call me at (505) 287-8851, extension 205.

Regards,



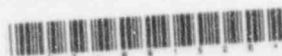
Peter Luthiger

Supervisor, Radiation Safety
and Environmental Affairs

xc: T. Fletcher
M. Freeman
NRC (Arlington, TX)
file

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Quivira Mining Company
License SUA-1473
Docket 40-8905

RADON FLUX PROGRAM
SAMPLE RECOUNT DATA

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TABLE 1

RADON FLUX TEST
POND 1

SAMPLE RECOUNTS

Grid Location	Date	Radon pCi/M2-Sec	+/- 1(STD)	Precision
8	09/20/95	0.16	0.03	
15	09/27/95	2.62	0.09	3.4
33	07/02/96	0.49	0.02	
40	06/25/96	0.09	0.02	
43	07/02/96	1.91	0.05	2.4
44	06/11/96	0.49	0.03	
45	09/29/95	0.37	0.03	
47	08/29/96	0.10	0.02	
48	06/25/96	0.45	0.03	
50	06/14/96	0.62	0.03	
54	06/11/96	0.41	0.03	
59	06/18/96	0.20	0.02	
61	07/07/96	0.26	0.02	
84	06/21/96	1.86	0.05	2.5
96	06/12/96	0.07	0.02	
109	07/22/96	0.54	0.03	

TABLE 2

RADON FLUX TEST
POND 2

RECOUNT DATA

Grid Location	Date	Radon pCi/M2-Sec	+/- 1(STD)	Precision in %
2	08/27/96	3.66	0.06	1.7
14	08/07/96	0.43	0.02	
19	07/23/96	0.69	0.03	
33	07/24/96	0.68	0.03	
31	08/28/96	0.48	0.03	
46	07/25/96	0.14	0.02	
58	09/04/96	0.45	0.03	
60	07/30/96	0.17	0.02	
68	08/05/96	0.00	0.02	
71	08/08/96	1.31	0.04	
87	08/06/96	0.61	0.03	2.9
95	08/20/96	0.08	0.02	
96	07/22/96	0.44	0.03	

TABLE 3

QUIVIRA MINING COMPANY
POND 1
RECOUNT DATA

GRID	INITIAL FLUX	RECOUNT FLUX	DIFF.	% DIFF. ³
8	0.68	0.16	0.52	
15	2.89	2.62	0.27	9.8
33	0.54	0.49	0.05	
40	0.04	0.09	0.05	
43	1.94	1.91	0.03	1.6
44	0.70	0.49	0.21	
45	0.53	0.37	0.16	
47	0.09	0.10	0.01	
48	0.62	0.45	0.17	
50	0.63	0.62	0.01	
54	0.50	0.41	0.09	
59	0.20	0.20	0.00	
61	0.34	0.26	0.08	
84	1.82	1.86	0.04	2.2
96	0.25	0.07	0.18	
109	0.62	0.54	0.08	

Notes:

1. Flux values are reported as picocuries per square meter per second.
2. Section 4.E of EPA Method 115 requires that the precision of measurements with flux values greater than 1.0 pCi/m²-sec shall be 10%.
3. Percent difference of samples with flux greater than 1.0 picocuries per meter squared per second calculated utilizing a formula suggested by Scientific Analysis, Inc. for use in determining precision. Formula is:

$$RD = \frac{|X_1 - X_2|}{X_a} \times 100$$

Where:

 X_1 = result of first measurement; X_2 = result of second measurement; X_a = average value of X_1 and X_2 : $(X_1 + X_2)/2$.

TABLE 4

QUIVIRA MINING COMPANY
POND 2
RECOUNT DATA

GRID	INITIAL FLUX	RECOUNT FLUX	DIFF.	% DIFF. ³
2	3.53	3.66	0.13	3.6
14	0.50	0.43	0.07	
19	0.60	0.69	0.09	
33	0.61	0.68	0.07	
31	0.33	0.48	0.15	
46	0.00	0.14	0.14	
58	0.85	0.45	0.40	
60	0.25	0.17	0.08	
68	0.18	0.00	0.18	
71	1.42	1.31	0.11	8.1
87	0.87	0.61	0.26	
95	0.26	0.08	0.18	
96	0.36	0.44	0.08	

Notes:

1. Flux values are reported as picocuries per square meter per second.
2. Section 4.E of EPA Method 115 requires that the precision of measurements with flux values greater than 1.0 pCi/m²-sec shall be 10%.
3. Percent difference of samples with flux greater than 1.0 picocuries per meter squared per second calculated utilizing a formula suggested by Scientific Analysis, Inc. for use in determining precision. Formula is:

$$RD = \frac{|X_1 - X_2|}{X_a} \times 100$$

Where:

X₁ = result of first measurement;X₂ = result of second measurement;X_a = average value of X₁ and X₂: (X₁ + X₂)/2.