

**KERR-McGEE NUCLEAR CORPORATION**

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

February 14, 1975



Mr. J. E. Rothfleisch
Materials Branch
Directorate of Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Rothfleisch:

Please refer to your letter of January 3 requesting additional information on the Sequoyah Facility. The data requested is attached.

Flowsheets marked "Kerr-McGee Confidential" are included for uranium and utility flow. These flowsheets are the only ones available, and flowsheets for the expanded plant are currently being developed. In accordance with 10 CFR 2.790(b), we request that these flowsheets be withheld from public disclosure.

Please excuse the delay due to several other pressing commitments to the AEC.

Sincerely yours,

W. J. Shelley
W. J. Shelley, Director
Regulation and Control

WJS:ml

Attachment



0482

8512230112 750214
PDR ADOCK 04008027
C PDR

ATTACHMENT #1
Sequoyah Facility (Internal Exposure)

1974 Urinalysis Results Averaged
(Reporting units are ugm of uranium per liter)

	① Maximum Concentration	① Minimum Concentration	Averaged Concentration
Group #1 (Production)	44.9	5.9	16.5
Group #2 (Maintenance)	34.5	7.2	17.7
Group #3 (All others)	25.3	4.8	10.6

① These concentrations are for an individual's routine monthly sample averaged for the year. They do not include special samples submitted as a result of a know or suspected incident.

1974 Process Area Air Sample Averages
(Results in fractions of maximum permissible concentration)

	Maximum Concentration Monthly Average	Minimum Concentration Monthly Average	Average Concentration for the year
Main Process Area ①	0.17	0.07	0.12
Sampling Plant ②	0.11	0.05	0.09

① These airborne concentrations are an average of sample results from twenty five (25) sampling locations.

② These airborne concentrations are an average of sample results from four (4) sampling locations.

ATTACHMENT #2

1974 Sequoyah Facility External Exposure
(Reporting Units are in mRem)

	①Maximum Beta Exposure	①Minimum Beta Exposure	Average Beta Exposure	①Maximum Penetrating Gamma	①Minimum Penetrating Gamma	Average Penetrating Gamma
Group #1 (Production)	2680	170	1192	420	≤ 10	184
Group #2 (Maintenance)	5920	90	1100	280	≤ 10	85
Group #3 (Others)	2290	90	440	760	≤ 10	48

①This exposure is for an individual's yearly dose.

ATTACHMENT #3

1974 ENVIRONMENTAL WATER SAMPLES SEEPAGE WELLS (Kerr-McGee Results)

(Radioactive Units - $\mu\text{Ci/ml} \times 10^{-8}$)

Chemical Units - ppm - Nitrate reported as N)

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LOCATION ANALYSIS		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2301	Nitrate	0.6	0.1	1.1	1.1	<0.1	0.3	0.2	1.0	1.6	2.0	0.6	0.4
Basin #1	Fluoride	1.6	1.8	1.4	1.3	0.8	0.7	1.0	1.0	2.9	1.0*	1.3	1.7
North	Gross α	5.8	<0.8	<0.8	1.1	<0.8	<0.8	5.5	3.2	---	---	---	---
	Gross β	<2.2	2.5	<2.0	<2.5	2.6	<1.9	<1.5	<1.6	---	---	---	---
	Uranium	2.6	3.8	0.9	0.9	0.9	0.6	2.1	0.9	1.1	<0.5	1.9	2.4
	226 Ra	---	---	0.016	---	---	0.028	---	---	---	---	---	---
2302	Nitrate	17.7	10.4	30.0	60.0	34.0	39.3	36.6	25.0	25.0	14.8	31.8	34.0
Basin #1	Fluoride	<0.5	0.7	0.8	0.8	0.5	0.5	0.7	0.7	1.0	0.4	0.5	0.5
South	Gross α	1.9	<0.8	1.2	0.9	1.5	<0.8	0.7	<0.8	---	---	---	---
	Gross β	<2.2	2.5	<2.0	<2.5	<2.6	<1.9	<1.5	<1.6	---	---	---	---
	Uranium	1.3	1.9	0.7	<0.3	2.2	0.6	<0.2	<0.5	0.7	0.8	4.5	1.5
	226 Ra	---	---	0.033	---	---	0.025	---	---	---	---	---	---
2303	Nitrate	11.0	12.4	15.0	4.9	13.0	15.6	13.9	7.6	10.0	21.0	0.4	5.4
Raffinath	Fluoride	<0.5	1.4	<0.5	0.6	0.6	0.9	0.5	0.5	0.5	0.3	0.2	0.2
Basin #1	Gross α	2.2	<0.8	1.2	<0.8	1.8	<0.8	<0.7	1.4	---	---	---	---
North	Gross β	<2.2	<2.5	<2.0	<2.5	4.9	<1.9	<1.5	<1.6	---	---	---	---
	Uranium	2.9	1.2	0.5	<0.3	<0.2	0.4	<0.2	1.1	1.3	3.4	2.1	3.6
	226 Ra	---	---	0.030	---	---	---	---	---	---	---	---	---
2305	Nitrate	3.0	0.1	0.2	0.1	0.1	1.1	0.3	2.2	0.6	1.1	26.2	5.9
Raffinath	Fluoride	0.8	0.9	0.8	1.0	0.6	0.5	0.5	0.4	0.4	<0.2	0.3	0.6
Basin #1	Gross α	<0.8	<0.8	<0.8	0.8	1.3	<0.8	<0.7	<0.8	---	---	---	---
South	Gross β	<2.2	<2.5	<2.0	<2.5	<2.5	<1.9	<1.5	<1.6	---	---	---	---
	Uranium	2.3	2.0	1.0	0.9	0.7	0.7	<0.2	<0.5	<0.5	<0.5	6.6	16.8
	226 Ra	---	---	0.025	---	---	0.016	---	---	---	---	---	---
2306	Nitrate	0.4	0.3	0.9	0.2	1.3	0.3	1.1	1.1	0.3	0.3	0.3	0.4
Carlisle	Fluoride	<0.5	<0.5	<0.5	0.5	0.3	0.2	1.0	0.4	1.0	0.2	0.3	0.2
Farm Pond	Gross α	1.2	0.9	<0.8	<0.8	<0.8	<0.8	<0.7	<0.8	---	---	---	---
South	Gross β	<2.2	<2.5	<2.0	<2.5	4.2	<1.9	<1.5	<1.6	---	---	---	---
	Uranium	1.7	0.7	1.9	<0.3	<0.2	<0.2	0.9	<0.5	<0.5	3.2	0.8	---
	226 Ra	---	---	0.034	---	---	---	---	---	---	---	---	---
2307	Nitrate	0.1	0.2	<0.1	0.9	0.3	0.3	0.3	1.1	0.7	0.4	0.1	0.4
Fault	Fluoride	1.4	2.3	2.1	2.1	1.8	2.1	2.0	0.7	2.9	2.8	2.4	0.4
Well	Gross α	1.6	<0.8	4.3	<0.8	8.6	<0.8	3.6	2.1	---	---	---	---
	Gross β	<2.2	<2.5	2.3	3.3	2.7	10.4	<1.5	<1.6	---	---	---	---
	Uranium	2.2	1.6	1.0	2.7	4.8	3.8	2.9	5.1	8.6	4.3	10.9	5.1
	226 Ra	---	---	0.031	---	---	0.011	---	---	---	---	---	---

[illegible]

1974 ENVIRONMENTAL WATER SAMPLES SEEPAGE WELLS CONT'D.

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Location	Analysis	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2314	Nitrate	4.2	4.6	2.1	160.0	158.0	326.0	549.0	601.0	587.0	623.0	660.0	627.0
Raffinate	Fluoride	1.1	0.7	1.0	0.7	1.2	---	0.6	---	---	0.6	---	---
Pond #2	Gross α	1.4	1.1	2.4	≤ 0.8	196.0	7.8	47.0	---	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	67.9	≤ 1.5	---	---	---	---	---
	Uranium	1.8	2.5	0.5	≤ 0.3	122.1	63.9	22.1	31.3	24.3	11.9	20.7	12.1
	226 Ra.	---	---	0.020	---	---	0.036	---	---	---	---	---	---
2315	Nitrate	5.2	5.0	0.1	4.4	29.0	18.4	19.2	26.0	17.0	14.6	5.0	3.7
Raffinate	Fluoride	0.7	≤ 0.5	1.5	≤ 0.5	0.3	0.3	0.4	0.6	0.5	0.3	0.2	0.2
Pond #2	Gross α	≤ 1.8	≤ 0.8	1.6	≤ 0.8	1.0	≤ 0.8	≤ 0.7	≤ 0.8	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	≤ 1.9	≤ 1.5	≤ 1.6	---	---	---	---
	Uranium	2.1	1.2	0.3	≤ 0.3	≤ 0.2	0.2	≤ 0.2	≤ 0.5	1.5	≤ 0.5	≤ 0.5	≤ 0.5
	226 Ra.	---	---	0.031	---	---	≤ 0.005	---	---	---	---	---	---
2316	Nitrate	1.0	1.0	0.6	0.6	0.3	0.4	0.6	0.5	0.6	0.7	0.6	0.4
Settling	Fluoride	0.9	≤ 0.5	0.9	0.6	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3
Basin #1	Gross α	≤ 0.8	1.2	1.1	≤ 0.8	≤ 0.8	≤ 0.8	1.1	1.5	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	≤ 1.9	≤ 1.5	≤ 1.6	---	---	---	---
	Uranium	2.0	0.8	≤ 0.3	0.7	0.3	1.5	≤ 0.2	≤ 0.5	≤ 0.5	4.1	3.3	0.6
	226 Ra.	---	---	0.037	---	---	≤ 0.005	---	---	---	---	---	---
2317	Nitrate	0.3	0.1	1.8	1.1	0.8	0.2	0.4	0.2	0.8	0.7	1.3	0.9
Raffinate	Fluoride	≤ 0.5	≤ 0.5	0.6	0.5	0.5	0.5	0.4	0.6	1.0	0.3	0.3	0.3
Pond #2	Gross α	1.3	1.4	1.3	≤ 0.8	1.5	≤ 0.8	1.1	1.4	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	≤ 1.9	≤ 1.5	≤ 1.6	---	---	---	---
	Uranium	1.5	1.4	0.3	≤ 0.3	2.2	1.4	0.8	≤ 0.5	1.4	3.9	3.9	9.3
	226 Ra.	---	---	0.043	---	---	≤ 0.005	---	---	---	---	---	---
2318	Nitrate	0.5	0.3	0.4	1.0	1.0	0.6	1.7	0.8	0.6	0.5	0.9	0.2
Raffinate	Fluoride	≤ 0.5	≤ 0.5	0.7	0.6	0.7	0.5	0.5	0.9	0.6	0.4	0.4	0.4
Pond #2	Gross α	1.4	1.1	1.7	≤ 0.8	2.2	≤ 0.8	≤ 0.7	1.2	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	1.9	≤ 1.5	≤ 1.6	---	---	---	---
	Uranium	2.5	0.9	0.3	0.4	0.7	≤ 0.2	0.6	0.7	≤ 0.5	2.1	3.5	3.2
	226 Ra.	---	---	0.036	---	---	0.006	---	---	---	---	---	---
2319	Nitrate	0.5	0.2	0.3	0.8	0.3	0.08	0.2	0.2	0.2	≤ 0.2	0.1	0.1
Raffinate	Fluoride	0.6	≤ 0.5	≤ 0.5	0.5	0.6	0.6	0.4	0.5	1.2	0.3	0.4	0.4
Pond #2	Gross α	1.6	1.4	2.0	≤ 0.8	1.5	≤ 0.8	≤ 0.7	≤ 0.8	---	---	---	---
	Gross β	≤ 2.2	≤ 2.5	≤ 2.0	≤ 2.5	≤ 2.6	≤ 1.9	≤ 1.5	≤ 1.6	---	---	---	---
	Uranium	2.7	0.9	0.3	≤ 0.3	1.3	≤ 0.2	≤ 0.2	≤ 0.5	0.6	1.7	10.3	11.6
	226 Ra.	---	---	0.051	---	---	0.013	---	---	---	---	---	---

[illegible]

1974 ENVIRONMENTAL SURFACE WATER SAMPLES
SEQUOYAH FACILITY
(RADIOACTIVE UNITS, α, β, γ - $\mu\text{Ci}/\text{ml} \times 10^{-6}$)
(CHEMICAL UNITS NO_3, F - ppm)

LOCATION	ANALYSIS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	Oct.	Nov.	Dec.
2205 Farm Pond East	Nitrate	1.5	0.9	1.6	2.5	1.0	0.5	5.7	3.3	0.6	0.6	0.5	1.0
	Fluoride	<0.5	<0.5	<0.5	0.7	0.4	0.4	0.5	0.4	1.0	0.3	0.2	0.2
	Gross α	<0.8	<0.8	<0.8	<0.8	1.4	<0.8	<0.7	<0.8	---	---	---	---
	Gross β	<2.2	<2.5	<2.0	<2.5	2.7	<1.9	<1.5	<1.6	---	<0.5	1.9	<0.5
	Uranium	1.0	1.0	0.3	<0.3	<0.2	<0.2	<0.2	0.5	0.6	<0.5	---	---
2206 Farm Pond South	226 Ra	---	---	0.026	---	---	0.021	---	---	---	---	---	---
	Nitrate	0.3	0.3	0.3	0.1	0.3	0.8	1.8	0.3	0.6	0.6	<0.1	0.4
	Fluoride	1.1	<0.5	<0.5	0.6	0.5	0.7	0.3	0.5	0.4	0.3	0.2	0.2
	Gross α	<0.8	<0.8	---	<0.8	<0.8	<0.8	<0.7	<0.8	---	---	---	---
	Gross β	<2.2	<2.5	---	<2.5	3.2	<1.9	<0.7	<1.6	---	---	---	---
2207 Facility Effluent	Uranium	1.3	0.5	0.4	0.5	0.8	0.8	<0.2	<0.5	0.5	<0.5	1.2	<0.5
	226 Ra	---	---	---	---	---	<0.006	---	---	---	---	---	---
	Nitrate	2.6	1.8	0.1	1.4	1.9	0.8	1.1	0.9	0.8	1.5	2.3	1.6
	Fluoride	1.3	<0.5	1.0	0.8	0.5	0.5	0.6	0.7	1.0	0.6	0.6	0.7
	Gross α	73.4	80.0	97.0	50.0	44.0	54.5	43.0	62.0	---	---	---	---
2208 Tenkiller Raw Water	Gross β	<2.2	8.0	18.0	4.5	9.9	2.1	<1.5	<1.6	---	---	---	---
	Uranium	33.0	31.4	42.9	20.8	24.0	14.4	16.5	49.6	46.9	67.0	56.9	40.8
	226 Ra	---	---	0.1	---	---	0.012	---	---	---	---	---	---
	Nitrate	0.4	0.4	0.4	0.5	1.0	0.4	0.3	0.1	0.4	0.5	0.3	0.7
	Fluoride	0.5	<0.5	<0.5	0.7	0.6	0.6	0.3	0.4	0.4	0.2	<0.2	<0.2
2209 Salt Fork River	Gross α	<0.8	<0.8	<0.8	<0.8	1.0	<0.8	<0.7	<0.8	---	---	---	---
	Gross β	<2.2	<2.5	<2.0	<2.5	4.7	<1.9	<1.5	<1.6	---	<0.5	0.5	<0.5
	Uranium	1.2	1.0	0.5	<0.3	<0.2	0.5	<0.2	1.7	2.4	<0.5	3.4	<0.5
	226 Ra	---	---	0.046	---	---	<0.002	---	---	---	---	---	---
	Nitrate	<0.1	0.1	<0.1	<0.1	0.1	0.09	0.1	0.4	0.4	<0.2	<0.1	0.3
2210 Carlisle School Pond	Fluoride	0.7	<0.5	0.5	0.6	0.2	0.3	0.5	0.3	0.7	0.3	<0.2	0.2
	Gross α	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.7	<0.8	---	---	---	---
	Gross β	<2.2	<2.5	<2.0	<2.5	<2.6	<1.9	<1.5	<1.6	---	<0.5	3.4	<0.5
	Uranium	1.4	1.0	0.3	<0.3	<0.2	<0.2	<0.2	0.5	0.5	<0.5	---	---
	226 Ra	---	---	0.042	---	---	<0.006	---	---	---	---	---	---
2211 Carlisle School Pond	Nitrate	0.2	0.1	0.3	0.2	0.1	0.4	0.2	0.3	0.5	0.2	<0.1	0.4
	Fluoride	<0.5	<0.5	<0.5	<0.5	0.5	0.2	0.4	0.9	0.4	0.2	<0.2	0.4
	Gross α	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.7	<0.8	---	---	---	---
	Gross β	<2.2	<2.5	<2.0	<2.5	3.5	---	<1.5	<1.6	---	---	---	---
	Uranium	1.4	1.3	0.5	<0.3	<0.2	<0.2	<0.2	0.6	0.5	<0.5	4.0	0.7
2212 Carlisle School Pond	226 Ra	---	---	<0.007	---	---	<0.012	---	---	---	---	---	---

GROSS ALPHA RESULTS - SEDGWICK FACILITY RESTRICTED AREA FENCE LINE AIR SAMPLES
 $\mu\text{Ci}/\text{x } 10^{-12} / \text{ml}$ Assuming all alpha activity due to natural uranium
 Fluoride reported in $\mu\text{g}/\text{L}$ of Air

	West Fence F.	East Fence F.	North Fence F.	South Fence F.
1972 April	0.26	0.22	0.14	0.16
May	0.30	0.36	0.14	0.16
June	0.43	0.22	0.28	0.22
July	0.36	0.12	0.24	0.20
August	0.20	0.22	0.16	0.12
September	0.20	0.18	0.16	0.18
October	0.20	0.10	0.28	0.14
November	0.10	0.14	0.14	0.10
December	0.10	0.16	0.18	0.10
1973 January	0.14	0.16	0.22	0.14
February	0.20	0.16	0.12	0.26
March	0.20	0.18	0.12	0.18
April	0.18	0.18	0.14	0.18
May	0.28	0.18	0.20	0.18
June	0.22	0.16	0.22	0.22
July	0.24	0.18	0.24	0.20
August	0.26	0.20	0.26	0.16
September	0.16	0.12	0.14	0.12
October	0.18	0.14	0.18	0.10
November	0.16	0.14	0.20	0.12
December	0.14	0.14	0.12	0.12
1974 January	0.12	0.12	0.10	0.12
February	0.10	0.10	0.10	0.10
March	0.10	0.10	0.10	0.10
April	0.20	0.12	0.10	0.10
May	0.14	0.10	0.10	0.10
June	0.14	0.12	0.14	0.10
July	0.18	0.14	0.12	0.12
August	0.30	0.35	0.25	0.18
September	0.20	0.25	0.20	0.35
October	0.30	0.35	0.25	0.25
November	0.20	0.20	0.20	0.30
December	0.25	0.20	0.20	0.20

① Sampling method changed from KOH Scrubber to sodium formate impregnated filter paper.

TABLE III

GROSS ALPHA ACTIVITY AND FLUORIDE RESULTS - SEQUOIA FACILITY ENVIRONMENTAL AIR
FLUORIDE RESULTS - CONCENTRATION IN $\mu\text{g}/\text{L}$ OF AIR

	1000 Feet East of Facility	1000 Feet North of Facility	1000 Feet South of Facility	1000 Feet West of Facility	
1972	∞ F.	∞ F.	∞ F.	∞ F.	
April	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
May	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
June	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
July	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
August	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
September	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
October	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
November	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
December	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
1973					
January	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
February	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
March	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
April	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
May	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
June	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
July	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
August	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
September	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	
October	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	

	1-40 South	May, 64 North	Carlisle School	Asphalt Plant (East)	1/2 Mi. SW of Facility
	∞ F.	∞ F.	∞ F.	∞ F.	∞ F.
1973					
November	4.6	≤ 1.0	1.2	1.0	≤ 1.0
cont'd. December	3.0	≤ 1.0	1.8	≤ 1.0	≤ 1.0
1974					
January	3.4	≤ 1.0	1.4	≤ 1.0	≤ 1.0
February	≤ 1.0	≤ 1.0	≤ 1.0	1.0	≤ 1.0
March	≤ 1.0	1.2	≤ 1.0	≤ 1.0	≤ 1.0
April	≤ 1.0	≤ 1.0	1.0	≤ 1.0	1.8
May	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
June	1.2	≤ 1.0	≤ 1.0	1.6	≤ 1.4
July	4.0	≤ 1.0	≤ 1.0	2.0	≤ 1.0
August	≤ 1.0	1.5	1.5	2.0	2.0
September	3.0	3.5	2.5	2.0	4.5
October	2.5	2.5	3.0	2.0	1.0
November	1.5	1.5	1.0	1.0	2.0
December	3.0	3.5	1.0	2.0	1.5

① Sampling locations changed in November, as recommended by the AEC--to the point of maximum downwind concentration and to areas of highest population densities, this was the basis used to select the new locations.

SEQUOIA FACILITY ENVIRONMENTAL SOIL SAMPLE RESULTS

URANIUM, NITRATE AND FLUORIDE RESULTS IN ppm -- NITRATE REPORTED AS N

LOCATION	March 1973	June 1973	September 1973	December 1973	March 1974	June 1974	September 1974	December 1974
2403 South 1000 Feet	Fluoride 58 Uranium 1.3 Nitrate ---	40 0.6 ---	58 2.0 ---	29 1.0 ---	39.0 0.26 ---	99 0.8 ---	19. 0.3 < 5.0	65.0 0.99 < 5.0
2404 West 1000 Feet	Fluoride 27 Uranium 28 Nitrate ---	140 0.4 ---	44 3.8 ---	39 2.5 ---	48 < 0.1 ---	43 2.6 ---	59 0.2 10.0	35.0 1.00 < 5.0
2405 North 1000 Feet	Fluoride 42 Uranium 3.0 Nitrate ---	100 1.5 ---	31 0.5 ---	21 1.2 ---	26 2.3 ---	79 1.8 ---	26 < 0.1 10.0	32 1.06 < 5.0
2406 East 1000 Feet	Fluoride 50 Uranium 1.6 Nitrate ---	110 0.8 ---	51 0.9 ---	57 0.9 ---	38 0.7 ---	38 1.3 ---	54 0.3 < 5.0	46 0.92 < 5.0

1972 ENVIRONMENTAL VEGETATION SAMPLE RESULTS

SEGOVIA FACILITY

NITRATE, URANIUM, AND FLUORIDE REPORTED IN ppm - (NITRATE AS N)
(UNITED STATES TESTING RESULTS)

LOCATION	ANALYSIS	OCTOBER	NOVEMBER	DECEMBER
2503 South 1000 Feet	Uranium Fluoride Nitrate	<5.0 19.0 475.0	<5.0 16.3 1.2	<5.0 10.6 500.0
2504 West 1000 Feet	Uranium Fluoride Nitrate	5.0 33.0 515.0	16.21 41.3 5.0	13.9 7.3 800.0
2505 North 1000 Feet	Uranium Fluoride Nitrate	7.1 8.0 5.0	6.9 18.6 0.1	10.0 6.0 100.0
2506 East 1000 Feet	Uranium Fluoride Nitrate	<5.0 6.0 5.0	<5.0 47.7 0.1	8.9 41.0 100.0
2507 South 6000 Feet	Uranium Fluoride Nitrate	<5.0 13.0 15.0	<5.0 22.4 0.1	< 5.0 17.0 100.0
2508 West 6000 Feet	Uranium Fluoride Nitrate	<5.0 9.0 7.0	<5.0 9.2 0.1	<5.0 9.5 300.0
2509 North 6000 Feet	Uranium Fluoride Nitrate	<5.0 14.0 30.0	15.0 9.6 0.1	<5.0 49.9 700.0
2510 East 6000 Feet	Uranium Fluoride Nitrate	<5.0 15.0 40.0	<5.0 64.0 0.6	<5.0 27.0 300.0



1973 ENVIRONMENTAL VEGETATION SAMPLE RESULTS
 SEQUOIA FACILITY
 URANIUM AND FLUORIDE REPORTED IN ppm
 SEQUOIA LAB RESULTS

LOCATION	ANALYSIS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
503 1st 1000 Feet	Uranium Fluoride	7.3 <4.0	9.2 <10.	0.8 <4.0	1.0 <3.0	1.05 <2.0	1.4 3.0	0.68 <2.0	0.8 2.5	4.7 3.0	1.4 7.0	3.1 <3.0	1.8 <3.0
504 1st 1000 Feet	Uranium Fluoride	9.7 31.0	12.5 <10.	1.2 12.0	1.2 <3.0	0.48 3.0	1.6 3.0	<0.1 <2.0	2.8 1.5	5.0 9.0	1.4 2.2	1.6 <3.0	5.5 <3.0
505 1st 1000 Feet	Uranium Fluoride	20.7 <4.0	2.5 <10.	1.2 <4.0	1.0 <3.0	0.45 <2.0	1.2 2.0	0.52 3.0	1.2 1.6	3.6 3.0	4.8 4.0	4.7 14.0	2.4 <3.
506 1st 1000 Feet	Uranium Fluoride	4.3 14.0	3.1 <10.	1.0 <4.0	1.0 <3.0	0.80 11.0	1.4 3.0	1.7 2.0	1.4 4.0	1.2 5.0	1.4 3.4	1.3 <3.0	1.9 <3.
507 1st 1000 Feet	Uranium Fluoride	3.2 4.0	1.2 <10.	0.8 <4.0	1.4 <3.0	0.93 4.0	2.2 4.0	0.42 <2.0	1.4 <1.5	0.4 5.0	0.6 5.0	1.8 <3.0	1.0 <3.
508 1st 1000 Feet	Uranium Fluoride	16.7 29.0	0.80 <10.	0.6 <4.0	0.4 <3.0	0.24 <2.0	0.7 4.0	0.65 2.0	0.4 <1.5	0.6 9.0	1.1 2.0	1.0 <3.0	0.4 13.0
509 1st 1000 Feet	Uranium Fluoride	2.9 <4.0	2.3 <10.	0.8 <4.0	1.1 <3.0	0.80 <2.0	1.4 6.0	2.5 2.0	0.6 4.5	0.5 2.0	0.5 1.0	1.8 <3.0	2.0 <3.
510 1st 1000 Feet	Uranium Fluoride	2.4 4.0	0.85 <10.	0.6 <4.0	2.0 <3.0	0.63 <2.00	1.6 25.0	1.4 2.0	1.2 2.4	0.5 1.0	0.6 <1.0	2.0 <3.0	2.9 <3.

Nitrate analysis was not run on Vegetation Samples in 1973.

1974 ENVIRONMENTAL VEGETATION SAMPLE RESULTS
SEQUELIAH FACILITY

NITRATE, URANIUM AND FLUORIDE REPORTED IN PPM - NITRATE AS N

LOCATION	ANALYSIS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
2503 South 1000 Feet	Fluoride Uranium Nitrate	< 3.0 3.2 ---	< 4.0 3.7 ---	2.9 0.9 ---	< 3.0 0.9 ---	< 3.0 0.5 ---	10.0 1.2 ---	< 2.0 0.9 ---	< 2.0 1.0 ---	3.0 0.5 420.	1.3 9.9 260.0	0.6 1.0 100.0	< 1. 1.54 10.
2504 East 1000 Feet	Fluoride Uranium Nitrate	10. 7.2 ---	20.0 2.9 ---	2.1 1.4 ---	0.8 0.2 ---	< 3.0 0.3 ---	< 1.0 0.6 ---	3.0 1.4 ---	< 2.0 0.4 ---	4.0 0.3 50.0	1.0 0.6 20.0	1.2 1.0 60.0	< 0.5 5.89 40.
2505 South 1000 Feet	Fluoride Uranium Nitrate	3.0 2.2 ---	7.0 3.8 ---	0.3 1.2 ---	< 3.0 0.7 ---	< 3.0 0.6 ---	2.0 1.0 ---	< 2.0 1.1 ---	< 2.0 2.0 ---	1.4 1.9 40.0	1.9 1.8 20.0	0.9 1.0 20.0	7. 1.94 < 10.
2506 East 1000 Feet	Fluoride Uranium Nitrate	< 3.0 5.2 ---	< 4.0 2.0 ---	4.8 2.0 ---	< 3.0 0.8 ---	< 3.0 0.2 ---	< 1.0 0.6 ---	< 2.0 1.1 ---	< 2.0 0.4 ---	3.7 1.2 50.0	2.0 0.7 15.0	15.0 5.0 12.0	5. 1.61 10.
2507 South 5000 Feet	Fluoride Uranium Nitrate	5.0 3.0 ---	< 4.0 0.8 ---	1.5 0.4 ---	4.0 0.5 ---	30.0 0.3 ---	4.0 0.1 ---	< 2.0 0.7 ---	< 2.0 0.8 ---	< 1.0 0.7 50.0	0.5 6.7 < 10.0	0.2 0.6 100.0	< 1. 1.55 < 10.
2508 West 5000 Feet	Fluoride Uranium Nitrate	< 3.0 1.1 ---	< 4.0 0.4 ---	0.3 0.2 ---	< 3.0 0.1 ---	< 3.0 0.9 ---	< 1.0 0.7 ---	< 2.0 0.8 ---	6.0 1.2 40.0	< 1.0 1.4 40.0	1.9 0.9 100.0	< 0.2 0.9 55.0	1. 1.03 < 10.
2509 South 5000 Feet	Fluoride Uranium Nitrate	< 3.0 1.3 ---	< 4.0 1.2 ---	1.1 0.8 ---	< 3.0 0.5 ---	< 3.0 1.0 ---	1.0 1.4 ---	< 2.0 0.3 ---	3.0 0.5 60.0	1.4 9.4 80.0	< 0.4 0.3 < 10.0	< 0.2 1.4 85.0	2. 1.48 < 10.
2510 East 5000 Feet	Fluoride Uranium Nitrate	3.0 0.9 ---	< 4.0 0.5 ---	3.0 1.2 ---	< 3.0 0.4 ---	< 3.0 0.3 ---	1.0 0.8 ---	< 2.0 0.6 ---	< 2.0 0.1 ---	1.6 0.3 70.0	< 0.4 1.6 210.0	< 0.2 0.7 175.0	< 1. 2.40 10.