

EFFLUENT MONITORING REPORT

(10 CFR 40.65)

Report Period: July 1, 1987 through December 31, 1987

Shootaring Canyon Uranium Processing Facility
Garfield County, Utah
NRC License No. SUA-1371
Docket No. 40-8698

Prepared by:

Plateau Resources Limited
Box 2111-Ticaboo
Lake Powell, UT 84533

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1.0 INTRODUCTION

The following Effluent Monitoring Report is presented to comply with requirements in accordance with 10 CFR 40, section 40.65, for the Shootaring Canyon Uranium Processing Facility, Source Material License No. SUA-1371, Docket No. 40-8698, operated by Plateau Resources Limited, Box 2111-Ticaboo, Lake Powell, UT 84533.

The sampling data represent the time period from July 1, 1987 through December 31, 1987.

2.0 SUPPLEMENTAL NOTES

1. The "% MPC" column refers to the 10 CFR, Part 20, Appendix B, Table II values for unrestricted areas:

	MPC Air (uCi/ml)
U-Natural	5.0 E-12
Ra-226	2.0 E-12
Rn-222	3.0 E-09

2. Values are presented using the "E" format, i.e.:
 $1.2 \text{ E-16} = 1.2 \times 10^{-16}$
3. All airborne particulate samples were collected using continuous high volume sampling techniques.
4. Lower limits of detection (LLD) and all analyses for the period of July 1, 1987, through December 31, 1987, were calculated and performed by outside laboratories; Alpha Nuclear Laboratories, Inc., of Dallas, TX., Terradex Corporation of Glenwood, Ill., and Eberline Analytical of Albuquerque, NM.
5. Gross concentrations are the sum of naturally occurring background concentrations and mill generated effluents. Similarly, gross exposure rates are the sum of naturally occurring background exposure rates and mill generated exposure rates.

3.0 AIR SAMPLES - 2nd Half, 1987

3.1 PARTICULATES, High Volume Air Samples

Date: 07/01/87 to 12/31/87

Location: AP-1 - Upwind; Sampled 40 hours per week, continuous.

<u>Radionuclide</u>	Gross Concentration and Error Estimate (uCi/ml)	LLD (uCi/ml)	% MPC
U-Nat	(3.31 ± 0.17) E-19	3 E-20	6.62E-6
Ra-226	(1.00 ± 0.70) E-17	4 E-17	5.0E-4

Date: 07/01/87 to 12/31/87

Location: AP-3 - Downwind; Sampled 40 hours per week, continuous.

<u>Radionuclide</u>	Gross Concentration and Error Estimate (uCi/ml)	LLD (uCi/ml)	% MPC
U-Nat	(3.15 ± 0.16) E-19	2 X E-20	6.30E-6
Ra-226	(2.11 ± 2.98) E-17	5 E-17	1.06E-3

4.0 AIRBORNE RADON-222 MEASUREMENTS
(Track Etch Method)

Date: 07-07-87 to 10-01-87

<u>Location</u>	Gross Average Concentration (uCi/ml)	Standard Deviation %	% MPC
AP-1	<1.0 E-9	None shown on report	
AP-3	<1.0 E-9	None shown on report	

Date: 10-01-87 to 12-30-87

<u>Location</u>	Gross Average Concentration (uCi/ml)	Standard Deviation %	% MPC
AP-1	0.4 E-9	24.3	13.
AP-3	0.6 E-9	20.0	20.

LLD's not shown on report

5.0 STACK SAMPLING

Date: 7-1-87 to 12-31-87

Stack was not operated during this report period.

6.0 WATER SAMPLES

6.1 Groundwater Monitoring Wells

Date: 10-15-87
Location: RM-1

Type: Radiological Monitoring Well (hydrologically upgradient from tailings impoundment).

<u>Radionuclide</u>	<u>Gross Concentration and Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-Nat	(0.00 ± 3.39) E+0	3 E-9
Ra-226	(7.54 ± 3.85) E-9	5 E-10

Date: 10-15-87
Location: RM-1

<u>CHEMICAL PARAMETER</u>	<u>CONCENTRATION (mg/l)</u>	<u>LLD (mg/l)</u>
As	<0.005	0.002
Se	<0.001	0.001
pH	7.93 pH units	0.1 pH units

6.1 Groundwater Monitoring Wells

Date: 10-12-87

Location: RM-4

Type: Radiological Monitoring Well (hydrologically downgradient from tailings impoundment).

<u>Radionuclide</u>	<u>Gross Concentration and Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-Nat	(0.00 ± 3.39) E+0	3 E-9
Ra-226	(5.66 ± 9.39) E-9	5 E-10

Date: 10-12-87

Location: RM-4

<u>CHEMICAL PARAMETER</u>	<u>CONCENTRATION (mg/l)</u>	<u>LLD (mg/l)</u>
As	<0.005	0.002
Se	<0.001	0.001
pH	8.30 pH units	0.1 pH units

6.1 Groundwater Monitoring Wells

Date: 10-15-87

Location: RM-5

Type: Radiological Monitoring Well (hydrologically downgradient from tailings impoundment).

<u>Radionuclide</u>	<u>Gross Concentration and Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-Nat	(3.39 \pm 3.39) E-10	2 E-10
Ra-226	(1.06 \pm 3.71) E-9	5 E-10

Date: 10-15-87

Location: RM-5

<u>CHEMICAL PARAMETER</u>	<u>CONCENTRATION (mg/l)</u>	<u>LLD (mg/l)</u>
As	<.005	0.002
Se	<.001	0.001
pH	8.04 pH units	0.1 pH units

6.1 Groundwater Monitoring Wells

Date: 10-14-87

Location: RM-6

Type: Radiological Monitoring Well (hydrologically downgradient from tailings impoundment).

<u>Radionuclide</u>	<u>Gross Concentration and Error Estimate (uCi/ml)</u>	<u>LLD (uCi/ml)</u>
U-Nat	(0.00 \pm 3.39) E+0	3 E-9
Ra-226	(0.00 \pm 1.15) E-8	5 E-10

Date: 10-14-87

Location: RM-6

<u>CHEMICAL PARAMETER</u>	<u>CONCENTRATION (mg/l)</u>	<u>LLD (mg/l)</u>
As	<0.005	0.002
Se	<0.006	0.001
pH	8.54 pH units	0.1 pH units

7.0 DIRECT RADIATION, Thermoluminescent Dosimeter Measurements

Date: 7-7-87 to 10-1-87

Location	Gross Exposure <u>(mR/quarter)</u>	Error Estimate <u>(mR/quarter)</u>
AP-1	19.0	3.5
AP-3	16.4	3.0

Date: 10-1-87 to 1-4-88

Location	Gross Exposure <u>(mR/quarter)</u>	Error Estimate <u>(mR/quarter)</u>
AP-1	26.6	4.1
AP-3	22.6	3.0

8.0 SOIL SAMPLES

Date: 7-1-87 to 12-31-87

No soil samples are required under SUA-1371 as renewed.

9.0 VEGETATION SAMPLES

Date: 7-1-87 to 12-31-87

No vegetation samples required under SUA-1371 as renewed.



40-8698

RETURN ORIGINAL TO PDR, HQ.

Shootaring Operations: Box 2111-Ticaboo, Lake Powell, UT 84533

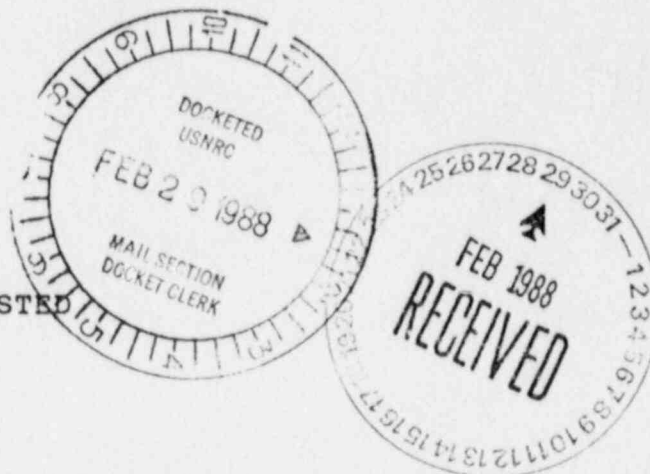
(801) 788-2120

04008698730E

February 25, 1988

CERTIFIED MAIL, RETURN RECEIPT REQUESTED

U. S. Nuclear Regulatory Commission
Uranium Recovery Field Office
P. O. Box 25325
Denver, CO 80225



RE: Effluent Monitoring Report -- SUA-1371, Docket No. 40-8698

Gentlemen:

Enclosed please find the original and four copies of the Effluent Monitoring Report for the Shootaring Canyon Uranium Processing Facility for the period from July 1, 1987 through December 31, 1987. This report is submitted in accordance with the requirements of 10 CFR 40.65.

Sincerely,

Vance W. Morrill

Vance W. Morrill
Environmental Radiological Health Technician

VWM/cf

Enclosures

cc: NFSavignac
WHCollins
USNRC, Director of Inspection and Enforcement (2)

FEE NOT REQUIRED
Report

DESIGNATED ORIGINAL
Certified By *Mary C. Ford*

88-0545