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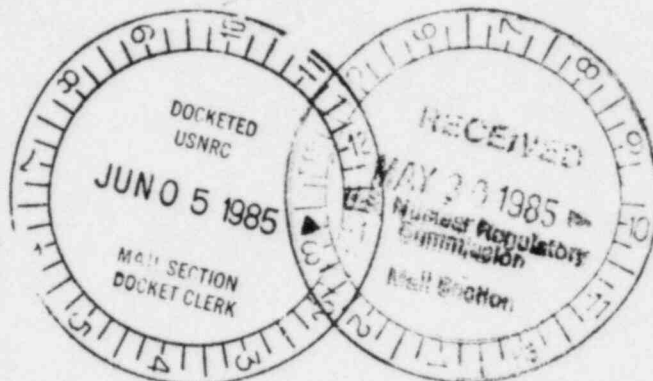
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RETURN ORIGINAL TO PDR, HQ.

May 24, 1985

Ms. Sandra L. Wastler
Project Manager
U. S. NUCLEAR REGULATORY COMMISSION
Uranium Recovery Field Office
Region IV
P. O. Box 25325
Denver, Colorado 80220



RE: SOURCE MATERIAL LICENSE SUA-1373,
DOCKET NO. 40-8728

Dear Sandy:

Enclosed please find the laboratory analytical results of water and sludge samples from both Leuenberger solar evaporation ponds. There is also a sludge sample from the plant sump for your review. When you have had a chance to look at this material, if you see any radiochemical parameters of concern in these concentrations, or have any questions, please give me a call. The analysis were performed for UNC Teton by R. A. Garling's Casper branch of Energy Laboratories. Per our telephone conversation this morning, may I confirm that the State of Wyoming Department of Environmental Quality, is still reviewing portions of our decommissioning plan. Because there are three different State agencies involved in the review of the well plugging portion of the plan, it is taking additional time to coordinate. This will delay our well plugging which was scheduled to be completed by May 31, 1985. However, as we discussed, the well plugging can be conducted concurrently with other decommissioning activities. This delay, therefore, should not have a great affect on the overall decommissioning.

I will keep you advised as to our progress. Please feel free to contact me at any time a question arises. Thank you for your understanding and consideration.

Sincerely yours,

Richard R. Appel

Richard R. Appel

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C PDR

RRA/my
Enclosures

DESIGNATED ORIGINAL

Certified By *Mary C. Hood*

cc: Mr. Juan Velasquez
UNC Teton Exploration Drilling, Inc.
P. O. Box 8480
Santa Fe, New Mexico 87504

FEE EXEMPT

Add Info
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LABORATORY REPORT

Lab No 85-2895

To UNC RESOURCES, INC.

Date 5/16/85

Sample Number: Plant Sump Solids Composite Sample Date: 4/2/85

Parameter	Concentration	Detection Limit/Units
Ca Calcium	13080	0.05 mg/l
Mg Magnesium	3160	0.01 mg/l
Na Sodium	5680	0.05 mg/l
K Potassium	9120	0.10 mg/l
CO ₃ Carbonate		0.10 mg/l
HCO ₃ Bicarbonate		0.10 mg/l
SO ₄ Sulfate		0.50 mg/l
Cl Chloride		0.10 mg/l
NH ₄ Ammonium (N)		0.05 mg/l
NO ₂ Nitrite (N)		0.001 mg/l
NO ₃ Nitrate (N)		0.01 mg/l
F Fluoride		0.10 mg/l
TDS @180 C		1.0 mg/l
Conductivity		1.0 uhm/cm
Alkalinity as CaCO ₃		0.10 mg/l
ph		0-14 units
SiO ₂ Silica		1.0 mg/l
CN Cyanide		0.005 mg/l
P Total phosphorus		0.01 mg/l
PO ₄ Phosphate		0.01 mg/l
S ⁼ Sulfide		0.10 mg/l
Al Aluminum	3240	0.10 mg/l
Ag Silver	18	0.005 mg/l
As Arsenic	13	0.001 mg/l
Ba Barium	4400	0.10 mg/l
Be Beryllium	26	0.005 mg/l
B Boron	240	0.10 mg/l
Cd Cadmium	12	0.01 mg/l
Cr Chromium	96	0.05 mg/l
Co Cobalt	<2.0	0.01 mg/l
Cu Copper	414	0.01 mg/l
Fe Iron	86600	0.05 mg/l
Pb Lead	3480	0.05 mg/l
Mn Manganese	574	0.01 mg/l
Hg Mercury	<0.2	0.001 mg/l
Mo Molybdenum	<1.0	0.05 mg/l
Ni Nickel	36	0.05 mg/l
Se Selenium	8.8	0.001 mg/l
Sn Tin	3240	0.1 mg/l
Ti Titanium	432	0.01 mg/l
Tl Thallium	<2.0	0.05 mg/l
U-Nat Uranium	4978	0.001 mg/l
V Vanadium	56	0.1 mg/l
Zn Zinc	1420	0.01 mg/l
Zr Zirconium	22	0.01 mg/l
Ra-226 Radium	24+3.5X10 ⁻⁶	0.10 pCi/l
Th-228 Thorium	1.92+0.09X10 ⁻⁷	0.01 pCi/l
Th-230 Thorium	1.12+0.07X10 ⁻⁷	0.01 pCi/l
Pb-210 Lead	55.6+0.6X10 ⁻⁶	0.10 pCi/l
U-234 Uranium	4.62+0.12X10 ⁻⁵	0.05 pCi/l
U-235 Uranium	2.44+0.26X10 ⁻⁶	0.05 pCi/l

Solid sample radiochemical results reported in uCi/gm
Solid sample chemical results reported in ppm

LABORATORY REPORT

Lab No. 85-2894

To UNC RESOURCES, INC.

Date 5/16/85

Sample Number: North Pond Solids Composite

Sample Date: 4/2/85

Parameter	Concentration	Detection Limit/Units
Ca Calcium	92800	0.05 mg/l
Mg Magnesium	6680	0.01 mg/l
Na Sodium	480	0.05 mg/l
K Potassium	9140	0.10 mg/l
CO ₃ Carbonate		0.10 mg/l
HCO ₃ Bicarbonate		0.10 mg/l
SO ₄ Sulfate		0.50 mg/l
Cl Chloride		0.10 mg/l
NH ₄ Ammonium (N)		0.05 mg/l
NO ₂ Nitrite (N)		0.001 mg/l
NO ₃ Nitrate (N)		0.01 mg/l
F Fluoride		0.10 mg/l
TDS @180 C		1.0 mg/l
Conductivity		1.0 umho/cm
Alkalinity as CaCO ₃		0.10 mg/l
pH		0-14 units
SiO ₂ Silica		1.0 mg/l
CN Cyanide		0.005 mg/l
P Total phosphorus		0.01 mg/l
PO ₄ Phosphate		0.01 mg/l
S ⁼ Sulfide		0.10 mg/l
Al Aluminum	29400	0.10 mg/l
Ag Silver	<0.10	0.005 mg/l
As Arsenic	9.2	0.001 mg/l
Ba Barium	4000	0.10 mg/l
Be Beryllium	4.0	0.005 mg/l
B Boron	200	0.10 mg/l
Cd Cadmium	<0.2	0.01 mg/l
Cr Chromium	28	0.05 mg/l
Co Cobalt	<2.0	0.01 mg/l
Cu Copper	20	0.01 mg/l
Fe Iron	9.80	0.05 mg/l
Pb Lead	3800	0.05 mg/l
Mn Manganese	154	0.01 mg/l
Hg Mercury	<0.2	0.001 mg/l
Mo Molybdenum	<1.0	0.05 mg/l
Ni Nickel	<6.0	0.05 mg/l
Se Selenium	56.8	0.001 mg/l
Sn Tin	500	0.1 mg/l
Ti Titanium	80	0.01 mg/l
Tl Thallium	<2.0	0.05 mg/l
U-Nat Uranium	370	0.001 mg/l
V Vanadium	74	0.1 mg/l
Zn Zinc	60	0.01 mg/l
Zr Zirconium	14	0.01 mg/l
Ra-226 Radium	476±12.8X10 ⁻⁶	0.10 pCi/l
Th-232 Thorium	1.37±0.23X10 ⁻⁷	0.01 pCi/l
Th-230 Thorium	<1.2X10 ⁻⁷	0.01 pCi/l
Pb-210 Lead	60.4±0.6X10 ⁻⁶	0.10 pCi/l
U-234 Uranium	1.30±0.09X10 ⁻⁵	0.05 pCi/l
U-235 Uranium	1.62±0.10X10 ⁻⁷	0.05 pCi/l

Solid sample radiochemical results reported in uCi/gm
Solid sample chemical results reported in ppm

LABORATORY REPORT

Lab No. 85-2893

To UNC RESOURCES, INC.

Date 5/16/85

Sample Number: South Pond Solids Composite

Sample Date: 4/2/85

Parameter	Concentration	Detection Limit/Units
Ca Calcium	16420	0.05 mg/l
Mg Magnesium	2540	0.01 mg/l
Na Sodium	6360	0.05 mg/l
K Potassium	14340	0.10 mg/l
CO ₃ Carbonate		0.10 mg/l
HCO ₃ Bicarbonate		0.10 mg/l
SO ₄ Sulfate		0.50 mg/l
Cl Chloride		0.10 mg/l
NH ₄ Ammonium (N)		0.05 mg/l
NO ₂ Nitrite (N)		0.001 mg/l
NO ₃ Nitrate (N)		0.01 mg/l
F Fluoride		0.10 mg/l
TDS @180 C		1.0 mg/l
Conductivity		1.0 umho/cm
Alkalinity as CaCO ₃		0.10 mg/l
pH		0-14 units
SiO ₂ Silica		1.0 mg/l
CN Cyanide		0.005 mg/l
P Total phosphorus		0.01 mg/l
PO ₄ Phosphate		0.01 mg/l
S ⁼ Sulfide		0.10 mg/l
Al Aluminum	26600	0.10 mg/l
Ag Silver	1.0	0.005 mg/l
As Arsenic	8.0	0.001 mg/l
Ba Barium	4480	0.10 mg/l
Be Beryllium	3.0	0.005 mg/l
B Boron	1460	0.10 mg/l
Cd Cadmium	0.2	0.01 mg/l
Cr Chromium	14	0.05 mg/l
Co Cobalt	<2.0	0.01 mg/l
Cu Copper	4.0	0.01 mg/l
Fe Iron	6840	0.05 mg/l
Pb Lead	3200	0.05 mg/l
Mn Manganese	82	0.01 mg/l
Hg Mercury	<0.2	0.001 mg/l
Mo Molybdenum	<1.0	0.05 mg/l
Ni Nickel	6.0	0.05 mg/l
Se Selenium	4.2	0.001 mg/l
Sn Tin	20	0.1 mg/l
Ti Titanium	270	0.01 mg/l
Tl Thallium	<2.0	0.05 mg/l
U-Nat Uranium	293	0.001 mg/l
V Vanadium	24	0.1 mg/l
Zn Zinc	30	0.01 mg/l
Zr Zirconium	18	0.01 mg/l
Ra-226 Radium	10.3+1.9 X 10 ⁻⁶	0.10 pCi/l
Th-228 Thorium	5.04+0.15X10 ⁻⁷	0.01 pCi/l
Th-230 Thorium	3.0+1.12X10 ⁻⁷	0.01 pCi/l
Pb-210 Lead	6.4+0.3X10 ⁻⁶	0.10 pCi/l
U-234 Uranium	2.34+0.36X10 ⁻⁶	0.05 pCi/l
U-235 Uranium	<1X10 ⁻⁸	0.05 pCi/l

Solid sample radiochemical results reported in uCi/gn
Solid sample chemical results reported in ppm

LABORATORY REPORT

Lab No 85-2892

To UNC RESOURCES, INC.

Date 5/16/85

Sample Number: North Pond Leuenberger

Sample Date: 4/2/85

Parameter	Concentration	Detection Limit/Units
Ca Calcium	18.8	0.05 mg/l
Mg Magnesium	9.7	0.01 mg/l
Na Sodium	45.5	0.05 mg/l
K Potassium	5.5	0.10 mg/l
CO ₃ Carbonate	0	0.10 mg/l
HCO ₃ Bicarbonate	169.6	0.10 mg/l
SO ₄ Sulfate	25.3	0.50 mg/l
Cl Chloride	19.9	0.10 mg/l
NH ₄ Ammonium (N)	0.50	0.05 mg/l
NO ₂ Nitrite (N)	<0.001	0.001 mg/l
NO ₃ Nitrate (N)	0.22	0.01 mg/l
F Fluoride	0.16	0.10 mg/l
TDS @180 C	212	1.0 mg/l
Conductivity	376	1.0 umho/cm
Alkalinity as CaCO ₃	139.0	0.10 mg/l
pH	7.90	0-14 units
SiO ₂ Silica	11.2	1.0 mg/l
CN ⁻ Cyanide	0.005	0.005 mg/l
P Total phosphorus	0.03	0.01 mg/l
PO ₄ Phosphate	<0.01	0.01 mg/l
S ⁼ Sulfide	<0.10	0.10 mg/l
Al Aluminum	<0.1	0.10 mg/l
Ag Silver	<0.005	0.005 mg/l
As Arsenic	0.006	0.001 mg/l
Ba Barium	1.1	0.10 mg/l
Be Beryllium	<0.005	0.005 mg/l
B Boron	0.2	0.10 mg/l
Cd Cadmium	<0.01	0.01 mg/l
Cr Chromium	<0.05	0.05 mg/l
Co Cobalt	<0.01	0.01 mg/l
Cu Copper	<0.01	0.01 mg/l
Fe Iron	<0.05	0.05 mg/l
Pb Lead	0.05	0.05 mg/l
Mn Manganese	<0.01	0.01 mg/l
Hg Mercury	<0.001	0.001 mg/l
Mo Molybdenum	<0.05	0.05 mg/l
Ni Nickel	<0.05	0.05 mg/l
Se Selenium	0.015	0.001 mg/l
Sn Tin	0.3	0.1 mg/l
Ti Titanium	<0.01	0.01 mg/l
Tl Thallium	<0.05	0.05 mg/l
U-Nat Uranium	0.248	0.001 mg/l
V Vanadium	<0.1	0.1 mg/l
Zn Zinc	0.02	0.01 mg/l
Zr Zirconium	<0.01	0.01 mg/l
Ra-226 Radium	53.9±12.6	0.10 pCi/l
Th-232 Thorium	0.82±0.33	0.01 pCi/l
Th-230 Thorium	0.62±0.29	0.01 pCi/l
Pb-210 Lead	22.7±3.3	0.10 pCi/l
U-234 Uranium	5.15±1.21	0.05 pCi/l
U-235 Uranium	0.51±0.38	0.05 pCi/l

Solid sample radiochemical results reported in uCi/gm
Solid sample chemical results reported in ppm