

UNC MINING AND MILLING

copy
5/19/11
Long



Division of United Nuclear Corporation
A **UNC RESOURCES** Company

Church Rock Operations
P.O. Drawer QQ

Gallup, New Mexico 87301
Telephone 505/722-6651

November 15, 1982

Mr. Russell Rhoades, Director
N.M. Environmental Improvement Division
P.O. Box 968
Santa Fe, NM 87504

RECEIVED
NOV 18 1982

RADIATION PROTECTION BUREAU

Re: Tailings Neutralization Semi-Monthly Report

Dear Mr. Rhoades:

In compliance with UNC's reporting proposal, the following documents are forwarded for the semi-monthly period from 11-1-82 through 11-11-82.

1. Semi-weekly pH monitoring of neutralized tailings fluids and slurries.
2. Laboratory analysis data of the pond fluid samples.

Respectfully submitted,

Marshall J. Fletcher

Marshall J. Fletcher
Resident Engineer

MJF/v

Enclosures

cc: Thomas M. Hill, UNC, Manager of Environmental Affairs
G. A. Swanquist, UNC, General Manager of Milling
G. K. Billings, Billings & Associates

PH MONITORING DATA

Location of pH Measurement Points	FIELD pH DATA											
	Date	pH	Date	pH	Date	pH	Date	pH	Date	pH	Date	pH
B.P. #1 Neut. Chamber Discharge	11-7-82	-	11-8-82	-	11-9-82	-	11-10-82	-	11-11-82	-	11-12-82	-
Borrow Pit No. 1 SE Corner			" "	4.74					" "	4.81		
Borrow Pit No. 2 Barge Station			" "	4.69					" "	5.06		
North Pond Decant Station			" "	6.57					" "	8.01		
Pumping Well No. 323-A			" "	2.72					" "	2.69		

REMARKS:

pH MONITORING DATA

Location of pH Measurement Points	FIELD pH DATA											
	Date	pH	Date	pH	Date	pH	Date	pH	Date	pH	Date	pH
B.P. #1 Neut. Chamber Discharge	10-31-82	-	11-1-82	-	11-2-82	-	11-3-82	-	11-4-82	-	11-5-82	-
Borrow Pit No. 1 SE Corner			" "	4.77	-		-		" "	4.80	-	
Borrow Pit No. 2 Barge Station			" "	4.63	-		-		" "	4.10	-	
North Pond Decant Station			" "	6.32	-		-		" "	7.50		
Pumping Well No. 323-A			" "	2.71	-		-		" "	2.82		

REMARKS:

pH 7.19 Temp. Gross α
TDS 16843 Cond. 13300 Gross β
TSS Sal.

LAB NO. 20-1112
SAMPLE ID NORTH Pond
COLL. DATE 11-4-82
COLL. TIME 1320
SAMPLER m.m.

TOTAL ANALYSES

Aliquot

Filter dig. acids

Parameters

REMARKS

Field Data

pH 7.54

Cond 15,000

Temp. 7°C

WORK SENT OUT

Aliquot

Where

For

All results are in mg/L
unless otherwise noted.

AA METALS

Filtered

HNO₃ to pH < 2

Aluminum 0.03

Antimony

Arsenic

Barium

Cadmium

Calcium 567.5

Chromium

Cobalt

Copper

Iron 33.5

Lead 0.017

Magnesium 536.0

Manganese 56.0

Molybdenum 0.0030

Mercury

Nickel

Potassium

Selenium

Silver

Sodium

Vanadium

Zinc

OTHER

SELECTIVE ION

Nitrate-N 29.2

Ammonia-N 2.530

Cyanide

Fluoride

GRAVIMETRIC or TITRIMETRIC

Chloride 237.2

Carbonate

Bicarbonate 77.2

Alkalinity

Sulfate 12.769

COLORIMETRIC

Boron

Uranium

Phenols

RADIOMETRIC

Thorium-230

Radium-226

Lead-210

Polonium-210

Radium-228

PH 4.14 Temp. Gross α
TDS 22,900 Cond. 22200 Gross β
TSS Sal.

LAB NO. 10-1113
SAMPLE ID prod #2
COLL. DATE 11-4-80
COLL. TIME 1315
SAMPLER SM. 4M

TOTAL ANALYSES

Aliquot

Filter dig. acids

Parameters

REMARKS

Field Dir.

pH 4.79

Cond 20800

Temp 12°C

WORK SENT OUT

Aliquot

Where

For

AA METALS

Filtered

HNO₃ to pH < 2

Aluminum 23.39

Antimony

Arsenic

Barium

Cadmium

Calcium 593.0

Chromium

Cobalt

Copper

Iron 715.5

Lead 0.007

Magnesium 676.0

Manganese 107.0

Molybdenum 0.0031

Mercury

Nickel

Potassium

Selenium

Silver

Sodium

Vanadium

Zinc

OTHER

SELECTIVE ION

Nitrate-N 21.1

Ammonia-N 2.750

Cyanide

Fluoride

GRAVIMETRIC or TITRIMETRIC

Chloride 263.7

Carbonate

Bicarbonate 15.4

Alkalinity

Sulfate 17.045

COLORIMETRIC

Boron

Uranium

Phenols

RADIOMETRIC

Thorium-230

Radium-226

Lead-210

Polonium-210

Radium-228

All results are in mg/L
unless otherwise noted.