04008907

UNITED NUCLEAR CORPORATION

P.O. Box 3077
Gallup, New Mexico 87305-3077

Telephone: (505) 722-6651
Fax: (505) 722-6654

8/22
Please docket. We have been checking ADAMS all week and the original copy has not shown up there. Betty Garrett 5-808

CERTIFIED - RETURN RECEIPT REQUESTED

August 15, 2003

Mr. Daniel M. Gillen, Chief
Fuel Cycle Licensing Branch, FCSS
Division of Fuel Safety and Safeguards
Office of Nuclear Material Safety & Safeguards
Mail Stop: T-8A33
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Semi-Annual Effluent and Environmental Monitoring Report from Jan. to April, 2003

Dear Mr Gillen:

In compliance with our Nuclear Regulatory Material License No. SUA-1475, Amendment No. 34, conditions 12, and 30; the attached Effluent and Environmental Monitoring Report are described and presented as listed below. This applicable and available data will specify the concentration of each principal radionuclide released to unrestricted areas in water effluent during the period of January 01, 2003 through April 30, 2003. The data is also reported on the format required in Regulatory Guide 4.14.

Available monitoring data in this report are in order as listed below:

- Environmental Inspection Report (continued this procedure to show and maintain the integrity of the restricted tailings area).
- Ground Water Result (available data on GW-3 Well).
- Sample Location Maps

NMSS01

Presently our environmental monitoring program is at a greatly reduced level and the above reported items are solely based on available data only. The required radiation monitoring program will be under an RWP (Radiation Work Permit) and no RWP was issued during this semi-annual period.

Additionally, our active radiation monitoring instruments are routinely calibrated and the radiation monitoring program is still in effect, but is in standby status awaiting the final pond closure reclamation activity.

Sincerely,

Max Chischilly Jr.

Max Chischilly, Jr.
Radiation Safety Officer

MC:drb

Enclosure

Cc: Chuck Cain, NRC
Bill Von Till, NRC
Roy Blickwedel, GE

ENVIRONMENTAL INSPECTION REPORTS

ENVIRONMENTAL INSPECTION

DATE: 1-16-03 TIME START: 0900

INSPECTOR: May Chickley Jr. TIME END: 1030

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences		✓	SEE BELOW
2. Air Monitors	- NA -		NA - ONLY UNDER AN RWP IF NEEDED.
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN: CHASED 5 COWS AND 9 BURROS OUT OF THE NORTH END AREA OF THE RECLAIMED TAILINGS AREA. ENTRY WAS GAINED THRU A FORCED OPENING UNDER NEATH PERIMETER FENCELINE (≈4'x2' OPENING) @ NE CORNER AREA NEAR THE COLLECTION TANK. ALSO FOUND ONE MIDDLE STRAND OF BARB WIRE HANGING LOOSE (≈20' LONG) NEAR THE SITE F NORTH END AREA. REPAIRED, REINFORCED AND RETIGHTEN THE OPENING AND LOOSE WIRING @ 1300 ON THE SAME DAY.

ENVIRONMENTAL INSPECTION

DATE: 2-28-03 TIME START: 1311

INSPECTOR: Max Chuckly Jr. TIME END: 1400

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	– NA	–	ONLY UNDER AN RWP IF NEEDED.
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN:

ENVIRONMENTAL INSPECTION

DATE: 3-25-03 TIME START: 1005

INSPECTOR: Max Chindly Jr. TIME END: 1200

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	- NA -		ONLY UNDER AN RWP IF NEEDED.
3. Radiation Warning Signs	✓		
4. Locked Gates	✓		

ACTION TAKEN:

ENVIRONMENTAL INSPECTION

DATE: 4-30-03 TIME START: 1050

INSPECTOR: Mac Chisolly Jr. TIME END: 1205

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	-NA-		ONLY UNDER AN RWP IF NEEDED.
3. Radiation Warning Signs		✓	SEE BELOW
4. Locked Gates	✓		

ACTION TAKEN: REATTACHED/RETIGHTEN THREE WIND BLOWN RADIATION WARNING SIGNS TO METAL POST STANDS AROUND THE EVAPORATION POND PERIMETER AREA.

ENVIRONMENTAL INSPECTION

DATE: 5-28-03 TIME START: 1030

INSPECTOR: Max Chadilly Jr. TIME END: 1203

TAILINGS AREA:	OKAY		PROBLEM	COMMENTS
1. Fences	✓			
2. Air Monitors	—	NA	—	ONLY UNDER AN RWP IF NEEDED
3. Radiation Warning Signs	✓			
4. Locked Gates	✓			

ACTION TAKEN:

ENVIRONMENTAL INSPECTION

DATE: 6-30-03 TIME START: 1120

INSPECTOR: Mark Chickily Jr. TIME END: 1300

TAILINGS AREA:	OKAY	PROBLEM	COMMENTS
1. Fences	✓		
2. Air Monitors	— NA	—	ONLY UNDER AN RWP IF NEEDED
3. Radiation Warning Signs		✓	SEE BELOW
4. Locked Gates	✓		

ACTION TAKEN: RETIGHTEN/REPOSTED ONE WINDBLOWN RADIATION WARNING SIGN TO METAL POST STAND AROUND THE EVAPORATION POND PERIMETER AREA. AND CHASED ONE COW AND ONE CALF OUT OF THE SE AREA.

GROUNDWATER RESULTS

QUARTERLY LIQUID SAMPLES

Date/Qr.	Location	Type	Radionuclide	Concentration Mg/l	Concentration µci/ml	Error Est. µci/ml	LLD µci/ml
01/07/03	GW-3	GROUND	U-Nat (dissolved) or total		$7.51E^{-08}$		2.00E-10
1ST-QR.		WATER WELL	Th-230 (dissolved) or total		$<2.00E^{-10}$		2.00E-10
			Ra-266 (dissolved) or total		$<2.00E^{-10}$		2.00E-10
			Pb-210 (dissolved) or total		$<1.00E^{-09}$		1.00E-09
			Po-210 (dissolved) or total				1.00E-09

UNC Field Data:
PH (STD. Units) = 6.62
Cond. (µ MHOS) = 5,510
Water Depth (Ft.) = 50.22
Temp. (°C) = 13.3

COMMENTS:

QUARTERLY LIQUID SAMPLES

Date/Qr.	Location	Type	Radionuclide	Concentration Mg/l	Concentration µci/ml	Error Est. µci/ml	LLD µci/ml
04/08/03	GW-3	GROUND	U-Nat (dissolved) or total		$7.18\ E^{-08}$		2.00E-10
2ND-QR.		WATER WELL					
			Th-230 (dissolved) or total		$<2.00E^{-10}$		2.00E-10
			Ra-266 (dissolved) or total		$4.00\ E^{-10}$	$2.00\ E^{-10}$	2.00E-10
			Pb-210 (dissolved) or total		$<1.00E^{-09}$		1.00E-09
			Po-210 (dissolved) or total				1.00E-09

UNC Field Data:
PH (STD. Units) = 6.60
Cond. (µ MHOS) =5,850
Water Depth (Ft.) = 50.20
Temp. (°C) = 12.8

COMMENTS:

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602
Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYSIS REPORT
UNC MINING AND MILLING: CHURCHROCK OPERATIONS
GROUNDWATER MONITORING PROGRAM: SOUTHWEST ALLUVIUM MONITOR WELLS

WELL ID:	GW-3	GW-3	GW-3	GW-3
LABORATORY ID:	C02070392-013	C02100477-005	C03010389-013	C03040535-013
SAMPLE DATE/TIME:	07/09/2002 11:00	10/07/2002 14:10	01/07/2003 10:30	04/08/2003 10:10
RECEIVED DATE/TIME:	07/12/2002 10:00	10/14/2002 10:00	01/13/2003 10:00	04/11/2003 10:00
REPORT DATE:	July 24, 2002	November 8, 2002	February 4, 2003	May 1, 2003
UNC SUBMITTAL #:	TE-10-7-2002	TE-12-10-2002	TE-1-1-2003	TE-3-4-2003

Major Ions	Method	Units	Reporting Limit	Results	Results	Results	Results
Calcium	EPA 200.7	mg/L	0.05	953	884	981	940
Magnesium	EPA 200.7	mg/L	0.01	302	276	312	282
Sodium	EPA 200.7	mg/L	0.05	157	223	274	256
Potassium	EPA 200.7	mg/L	0.10	8.8	8.0	9.6	10.9
Bicarbonate	SM 2320-B	mg/L	0.10	1560	1620	1710	1680
Sulfate	EPA 200.7	mg/L	1.0	2170	2030	2210	1900
Chloride	EPA 200.7	mg/L	1.0	127	150	154	165
Ammonia as N	SM 4500-NH3-G	mg/L	0.05	0.24	0.22	0.24	0.23
Nitrate + Nitrite as N	EPA 353.2	mg/L	0.10	93.2	83.8	86.0	98.0
Non-Metals							
Total Dissolved Solids	SM 2540-C	mg/L	1.0	5430	4510	5530	5540
pH	SM 4500-H-B	std. units	0.10	7.38	7.35	7.39	7.30
Trace Metals, dissolved							
Aluminum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Arsenic III	SM 3114-B	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Beryllium	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	EPA 200.8	mg/L	0.005	< 0.005	< 0.005	< 0.005	< 0.005
Cobalt	EPA 200.8	mg/L	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Lead	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Manganese	EPA 200.8	mg/L	0.01	1.79	1.95	2.05	2.01
Molybdenum	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nickel	EPA 200.8	mg/L	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Selenium IV	SM 3114-B	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001
Vanadium	EPA 200.8	mg/L	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Radiometrics							
Uranium, dissolved	EPA 200.8	mg/L	0.0003	0.0934	0.0713	0.111	0.106
Radium 226	EPA 903.0	pCi/L	0.2	< 0.2	< 0.2	< 0.2	0.4
Radium Error Estimate ±				-	-	-	0.2
Radium 228	EPA 904.0	pCi/L	1.0	< 1.0	< 1.0	< 1.0	4.0
Radium Error Estimate ±				-	-	-	1.0
Thorium 230	EPA 907.0	pCi/L	0.2	< 0.2	< 0.2	< 0.2	< 0.2
Thorium Error Estimate ±				-	-	-	-
Lead 210	NERHL-65-4	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Lead Error Estimate ±				-	-	-	-
Gross Alpha-Rn&U	EPA 900.1	pCi/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0
G. Alpha Error Estimate ±				-	-	-	-
Trace Organics							
Chloroform	EPA 8260	µg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Quality Assurance Data		Target Range				
Anion	meq		81.0	79.1	84.6	78.8
Cation	meq		80.0	77.2	87.3	82.0
SM A/C Balance	%	-5 - +5	-0.64	-1.18	1.62	2.03
Calc TDS	mg/L		4913	4754	5179	4830
TDS A/C Balance	dec. %	0.80 - 1.20	1.11	0.95	1.07	1.15

criss: r:\reports\clients2003\unc_mining\1_alluvium\gw-3\c03040535-13.xls

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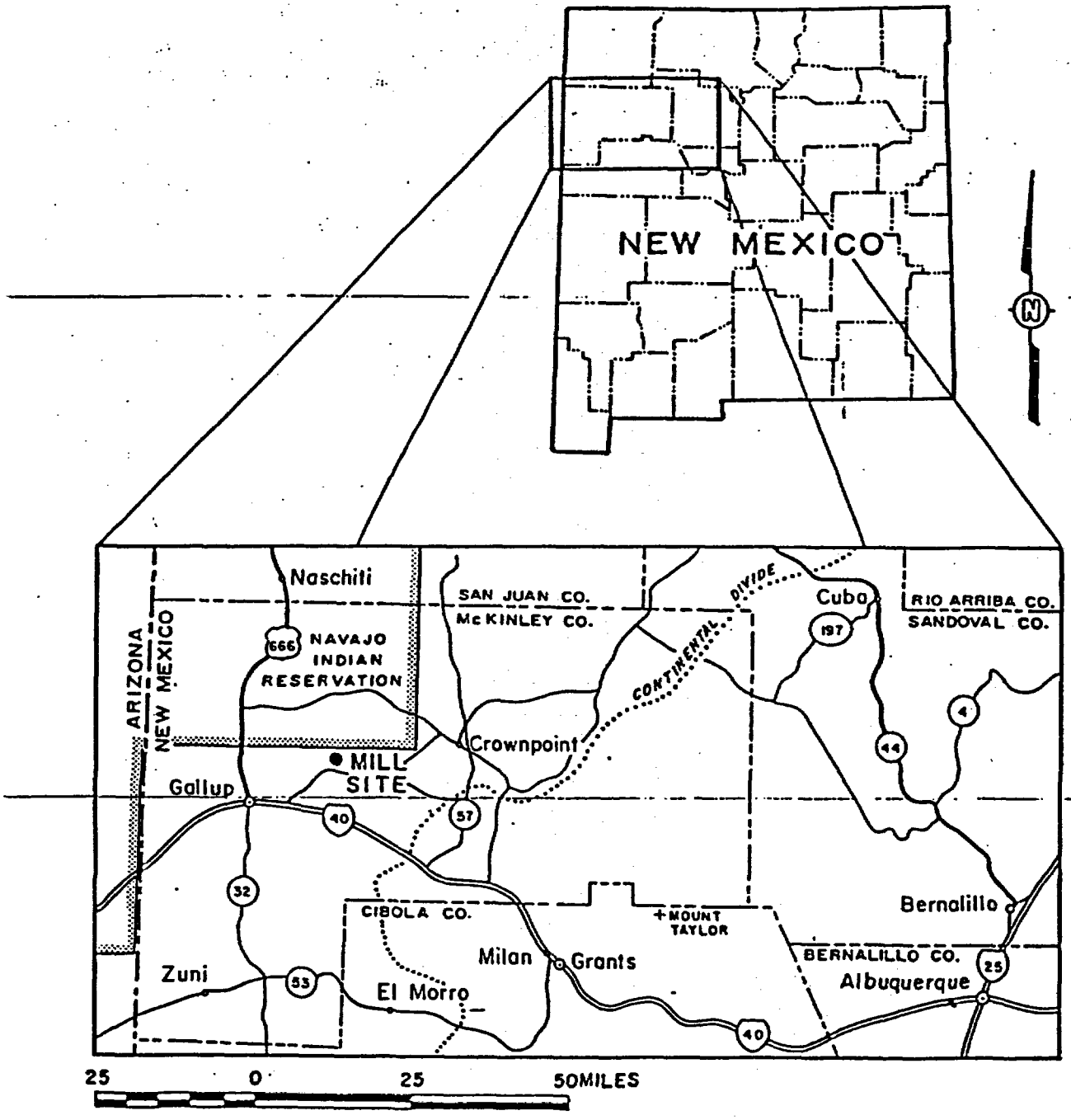
SAMPLING LOCATION MAPS



SOURCE:
URANIUM MILL LICENSE RENEWAL APPLICATION-ENVIRONMENTAL REPORT. LICENSE NO. NM-UNC-ML. JNC 1981

SKETCH 1-1
CHURCH ROCK PROJECT
SITE LOCATION PLAN
16674-000

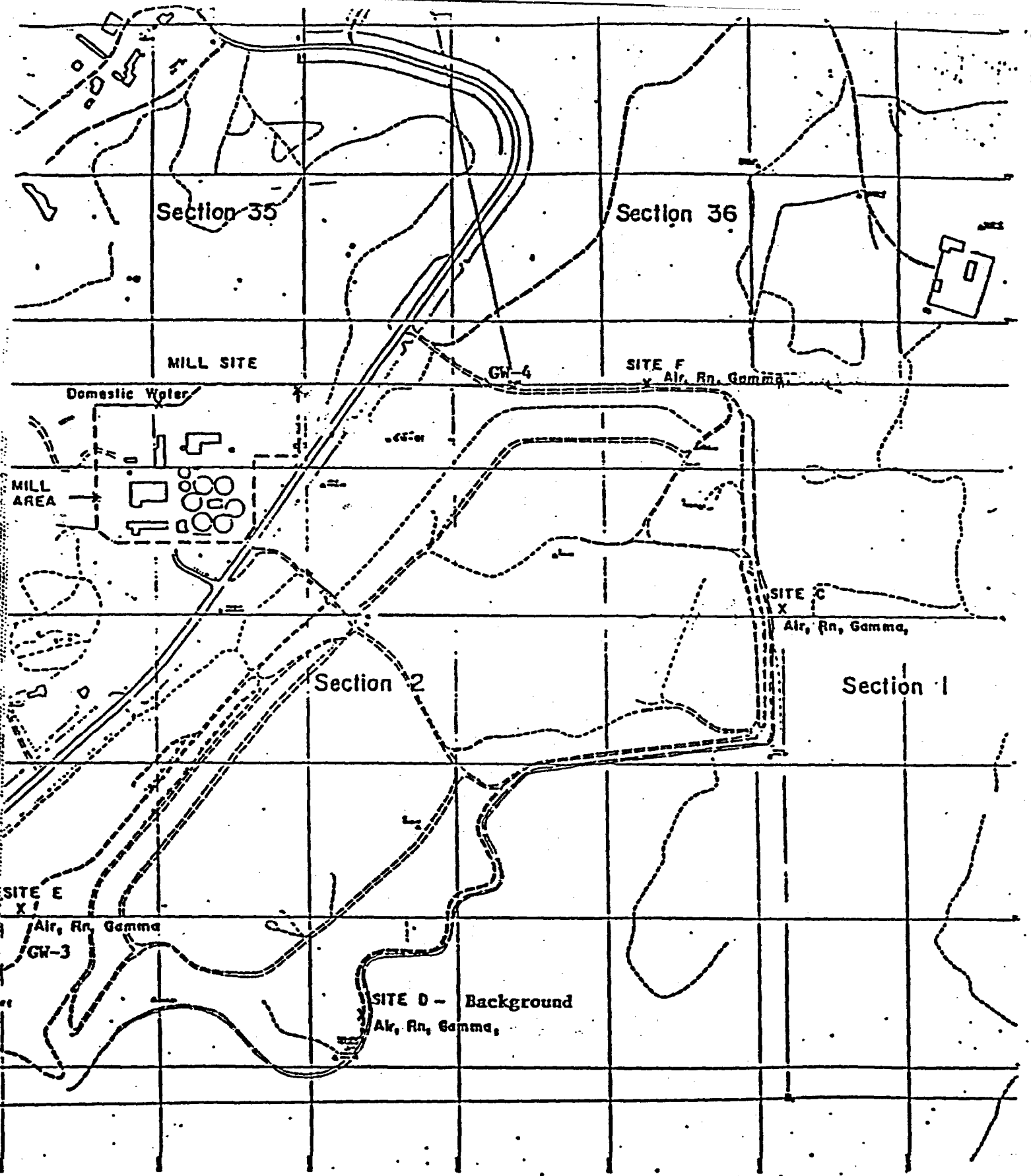

Section 35
Section 36
MILL SITE
GW-4
SITE F
Air, Rn, Gamma
Domestic Water
MILL AREA
SITE C
Air, Rn, Gamma,
Section 2
Section 1
SITE E
Air, Rn, Gamma
GW-3
SITE D - Background
Air, Rn, Gamma,

FIGURE 2