U.S. ENERGY CORP.

877 NORTH 8th WEST PHONE (307) 856-9271 RIVERTON, WYOMING 82501

CERTIFIED Return Receipt Requested

August 5, 1997

Joseph J. Holonich, Chief
High Level Waste and Uranium
Recovery Projects Branch
Division of Waste Management, NMSS (T-7-J9)
Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20850

Re: SUA-1524, Docket No. 40-8971

Dear Mr. Holonich:

Please find enclosed five (5) copies of the 1996-1997 Annual Update for the Green Mountain Ion Exchange Facility near Jeffrey City, Wyoming.

Yours truly,

Kenneth Webber,
Environmental Coordinator

KW/ms

Enclosures: Annual Update
Copy of Letter to Mr. Moxley, DEQ
Copy of Certificate of Deposit

cc: Samuel J. Collins, Director
Division of Radiation Safety
and Safeguards, Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

1/1

NLOS

120094

FAX (307) 857-3050

SMP\Permits\SUA1524\JH8-5-96.doc

Date: August 5, 1997
Subject: Annual Update
License No.: SUA-1524, Docket No. 40-8971
Submitted To: Nuclear Regulatory Commission

There has been no activity at the Green Mountain Ion Exchange (GMIX) facilities and in the "Restricted Areas" during the past year. The facilities and site have been maintained in accordance with the "possession only" provisions of the license.

No work permits were issued.

Fences around all ponds and the GMIX facility have been checked and maintained.

A gate at the cattle guard to the final pond has been checked and maintained.

All items purchased from the Bison Basin Plant remain in the "Restricted Area" near the GMIX Plant.

There has been no water discharged through the BaCl Plant since February 11, 1989. All mine water has been discharged directly into a pit impoundment. No sample was taken at the discharge point from the final pond as no water was available to take a sample.

Two water samples were taken on Crooks Creek and two soil samples were taken 50 yds and 150 yds below the discharge point by U.S. Energy Corp. in May, 1997. A copy of the analysis by Energy Labs of Casper, Wyoming and graphic presentations of the environmental monitoring is attached hereto.

The Company continues to study the possibility of utilizing the facility in an in-situ operation.

U.S. Energy Corp. has increased the surety amount $1,970.00 due to a Consumer Price Index increase of 2.3% from June 1996 to June 1997. This amount was based on the present total surety of $85,623.00. Enclosed is a copy of the automatically renewable certificate of deposit no. 5060 in the amount of $1,970.00 issued payable to the Wyoming Department of Environmental Quality, Land Quality Division, along with correspondence pertaining thereto. The certificate of deposit references that it is for GMIX-NRC requirements.

U.S. Energy Corp. has a surety arrangement in the form of automatically renewable certificates of deposit, made payable to the Wyoming Department of Environmental Quality for the purpose of complying with 10 CFR 40, Appendix A, Criterion 9. The following is a list of the certificates of deposit.

YEAR	CD No.	Amount
1988 (8/1/88)	B7050	$41,900.00
1988 (11/9/88)	B7205	1,000.00
1989 (4/28/89)	B7462	2,060.00
1990 (4/24/90)	B8210	2,068.00
1990 (11/16/90)	B8621	23,862.00
1991 (8/27/91)	20-2130	3,330.00
1992 (8/14/92)	10-228	2,375.00
1993 (8/10/93)	10-2445	2,298.00
1994 (8/4/94)	10-3230	1972.00
1995 (7/28/95)	3551	2426.00
1996 (8/12/96)	4017	2,332.00
1997 (8/4/97)	5060	1,970.00
Total surety to date		$87,593.00

These funds are adequate to cover the estimated costs, if accomplished by a third party, for completion of an NRC approved site closure plan including: above ground decommissioning and decontamination, off-site disposal of radioactive solid process wastes and evaporation pond residues, and ground water restoration as warranted. The surety ($87,593.00), which is held by the Wyoming Dept. of Environmental Quality covers the NRC related portion of this reclamation closure plan. U.S. Energy Corp. has submitted, in previous updates, documented evidence of the financial surety to cover any additional cost of reclamation and inflation.

ESTIMATED RECLAMATION COSTS FOR ALL AFFECTED AREAS

INCLUDES: GMIX Plant, $BaCl_2$ Plant. Contaminated sludge and soils from the Final Pond (Roberts Reservoir #2), Primary Pond (Roberts Reservoir #3) and the IX Reservoir.

EXCLUDES: The drainage re-establishment for Hanks Draw, GMIX Pond, Roberts Reservoir #2 and Roberts Reservoir #3. (Included in Western Nuclear permit No. 381-C and Amendments A-1 through A-5. This is on file at the WDEQ Office, Land Quality Division, 210 Lincoln Street, Lander, WY 82520.)

Roberts Reservoir #3 - 10,500 square feet of surface area.

Contaminated sludge and soil removal, 800 cu. yds.	
Excavation: 800 cu. yds. at $1.47/cu. yd.	$ 1,176.00
Trucking: 1,200 tons at $.13/ton mile	4,212.00
(To be trucked 27 miles to the Sweetwater Mill Tailings Disposal Area.)	

Roberts Reservoir #2 - 42,000 square feet of surface area.

Contaminated sludge and soil removal, 3,000 cu. yds.	
Excavation: 3,000 cu. yds. at $1.47/cu. yd.	4,410.00
Trucking: 4,450 tons at $.13/ton mile	15,619.00
(To the same location)	
Building removal: 8' x 8' x 8' at $.20/cu. ft.	100.00

GMIX Reservoir - The GMIX Pond is used for a surge pond for mine water before entering the GMIX or $BaCl_2$ plants. There is no treatment with Barium Chloride to waters entering this pond and the water from the GMIX Plant does not discharge into this pond. The Reservoir is fenced as a "Restricted Area" and as a result, U.S. Energy has sampled this Reservoir on a grid. The sludge, if contaminated, will be handled in the same manner as that in the Primary and Final ponds. This Reservoir and the re-establishment of Hanks Draw will be reclaimed as per WDEQ requirements on the re-establishment of Hanks Draw upon completion of use.

IX Plant and BaCl2 Plant

Building removal (only if contaminated):	40' x 60' x 20' at $.20/cu. ft.	9,600.00
Building removal (only if contaminated):	24' x 24' x 12' at $.20/cu. ft.	1,382.00

Equipment	Qty	
IX column	6	8' dia. x 10' ht.
Striping tank	3	8' dia. x 10' ht.
Precipitation tank	2	8' dia. x 8' ht.
Recycle pump	2	
Feed pump	2	
NH_3 storage tank	1	500 gal. capacity
Acid tank	1	2,000 gal. capacity
$BaCl_2$ tank	2	4' x 4'
Air compressor	1	100 psi, 3 HP

Steps, railing, walkways, piping, valves

Labor for disassembling all of the above equipment and all miscellaneous contaminated items.

2 men at $30.00/hr. for 180 hours 6,000.00

Contaminated equipment trucked to Sweetwater Mill Tailings Disposal Area.	
14 loads at $238.00/load - loading and trucking	
$952.95/day - 4 loads/truck/day	3,332.00
Concrete burial (40' x 60' and 24' x 24' areas)	
Fill and grading: 2,000 cu. yds. at $.88/cu. yd.	1,760.00
(Buried on site with a minimum of 4 feet of overburden)	
Removal of any contaminated soil on the IX Plant and $BaCl_2$ Plant areas	
Assumes 200 yards removal at $1.47/dy.	294.00
Trucking: 300 tons at $.13/ton mile	1,053.00
RSO, Monitoring and Sampling Costs	6,000.00
Equipment - Other	
Dragline or crane for 1 day	693.00
Water truck & driver: 5,000 gal. at $75.00/hr. at 32/hrs.	2,400.00
Welding equipment: $80.00/day at 5 days	400.00
Mobilization & Demobilization - 70 miles each way	
5 - Tractor, end dump trailers and pups	
3 hours each x 5 = 15 hours at $119.00/hr.	1,785.00
1 - Truck and low bed trailer: 3 hours at $119.00/hr.	357.00
1 - 5 yd wheeled loader: 3 hours at $119.00/hr.	357.00
1 - Crane: 3 hours at $119.00/hr.	357.00
1 - Water Truck: 3 hours at $119.00/hr.	357.00
TOTAL RECLAMATION COSTS:	61,644.00
15% Contingency	9,246.00
BONDING REQUIREMENTS through 11/16/90:	$70,890.00
Year 1991 cpi Increase	3,330.00
Year 1992 cpi Increase	2,375.00
Year 1993 cpi Increase	2,298.00
Year 1994 cpi Increase	1,972.00
Year 1995 cpi Increase	2,426.00
Year 1996 cpi Increase	2,332.00
BONDING REQUIREMENTS through 1996:	$85,593.00
Year 1997 cpi Increase	1,970.00
TOTAL BONDING REQUIREMENT through 8/4/97:	$87,593.00

All costs were determined by the use of the 1990 "Means Construction Cost Data".

Trucking Cost Analysis: Includes bare costs, overhead and profit on a daily basis.

1 Driver	$216.40
1 Truck	364.30
1 Dump Trailer - 30 Ton	114.85
1 Pump - 15 Ton	100.00
	$795.55

5 Trips per day, 27 miles one way over graded road; 45 tons per trip; 5 trucks for 8 days: Total cost per ton mile = $0.13

Excavation Cost Analysis: Includes bare costs, overhead and profit.

5 yard - wheel mounted loader:
$.92/yd. plus 60% heavy stiff material = $1.47/cu. yd.

Enclosures:

Letter to Mr. Moxley - Wyoming DEQ
Analysis sheet of sediment down drainage
Graphic of sediment values
Analysis of Crooks Creek at C1 above discharge
Graph of C1 above discharge -
Analysis of Crooks Creek at C2 below discharge
Graph of C2 below discharge

U.S. ENERGY CORP.

877 NORTH 8th WEST PHONE (307) 856-9271 RIVERTON, WYOMING 82501

Certified Return Receipt Requested

August 5, 1997

Mark Moxley
Department of Environmental Quality
210 Lincoln Street
Lander, WY 82520

Re: WDEQ Permit 381C, NRC License No. SUA-1524 for GMIX Facility
Fremont County, Wyoming.

Dear Mr. Moxley:

Enclosed is a Certificate of Deposit from Riverton State Bank, No. 5060 in the amount of $1,970.00. The CD represents our cash bond for the reclamation increase for the GMIX affected area pertaining to Permit No. 381C. After your review we would appreciate if you would notify the following of your receipt, acceptance and approval:

Joseph J. Holonich,
Chief, High Level Waste and Uranium Recovery Projects Branch
Division of Waste Management,
NMSS (T-7-J9)
Nuclear Regulatory Commission,
11545 Rockville Pike
Rockville, MD 20850

Samuel J. Collins, Director
Division of Radiation Safety and Safeguards
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

The increase in bonding was requested as a requirement of U.S. Energy Corp.'s Annual Update to the NRC. A copy of the 1997 Annual Update to the NRC is enclosed.

Yours truly,

Kenneth Webber
Environmental Coordinator

KW/ms

Permit No. 381 C: GMIX-NRC Requirement

This Certificate Evidences A Deposit In The Name(s) Of: Wyoming Dept. of Environmental Quality****
Land Quality Division
Cheyenne, WY 82001

Certificate Number 5060
SSN/TIN 83-0205516
D/O/B
Account Number 09-558-0
Date August 4, 1997

In The Amount Of One thousand nine hundred seventy and no/100* * * **dollars $** 1,970.00

ACCOUNT TYPE AND TERMS - Only the boxes that are checked and the lines that are filled in apply.

Term (Initial) 12 months
☐ _____ Day Minimum Notice ☐ Single Maturity ☒ Automatically Renewable
Maturity Date (First) 08/04/1998
☒ Fixed Rate ☐ Min. Balance Req. $
Interest Rate (Initial) 5.000 %
☐ Variable Rate: Initial Index Rate _____ % Maximum Rate _____ %
Compounded no compounding
Minimum Rate _____ % First Adjustment Date _____
Interest Calculated actual/365
Adjustment Frequency _____
No. Endorsements Required For Withdrawal 0
Rate Formula _____
Interest Paid at maturity
(a) ☒ By mailed at maturity by check
(b) ☐ By Deposit To Acct. No. _____ to US Energy

RIVERTON STATE BANK
PO DRAWER BE 616 N FEDERAL BLVD
RIVERTON, WY 82501 (307)856-8191
BY _____

GENERALLY: "**We**" **and** "**us**" means the financial institution. "**You**" **and** "**your**" means the depositor(s). "**Certificate**" means both this original instrument as well as the deposit it shows. This certificate (and the account it represents) or minimum notice account may not be transferred or assigned without our prior written consent and is not negotiable.

VARIABLE INTEREST RATE: Your deposit will earn interest at the initial interest rate stated on this certificate to the first adjustment date. Then, and on each succeeding adjustment date, the rate this certificate will earn is subject to be increased or decreased according to the formula described on this certificate. The rate will remain the same between interest adjustment dates.

If the "first adjustment date" is phrased in terms of "index change" this means the first adjustment date and the rate adjustment frequency after the first adjustment date are not regularly scheduled. In this case, the rate this certificate will earn will be adjusted any time the "index" changes.

The interest rate we will pay on this certificate will not, however, be greater than the stated maximum rate (if any) or be less than the stated minimum rate (if any) regardless of changes in the index rate.

COMPOUNDING: The compounding frequency and interest calculation method will not change during the term of the certificate, regardless of adjustments to the interest rate, until we give reasonable notice to you of such change.

DEFINED DAY MINIMUM NOTICE ACCOUNT: If we have specified a number of days and checked the minimum notice box, then this account has no definite maturity date. To withdraw all or any portion of the account balance without penalty, you must give us (and we must actually receive) notice of your intention to withdraw funds from this account. This notice period must be equal to the minimum number of days stated above. Your notice may be in writing or by such other means as we may permit, and must specify the amount and date of intended withdrawal. Interest ☐ will ☒ will no longer accrue after the withdrawal date specified in your notice, on that portion of the account balance then available for withdrawal.

We may terminate this account by written notice to you of our intention to do so, mailed (or otherwise delivered in person) not less than _____ days before the termination date, and no interest will accrue after the termination date.

SINGLE MATURITY: If the single maturity box is checked, the depositor should present this certificate promptly at maturity for payment. Interest ☐ will ☐ will not accrue after maturity.

AUTOMATIC RENEWALS: If the automatic renewal box is checked, this certificate will be automatically renewed after the stated maturity date stated for successive terms, each equal to the original term. The interest rate will be the same we offer on new certificates on the maturity date which have the same term, minimum balance (if any) and other features as this original certificate. The depositor may call us on or shortly before the maturity date and we will tell the depositor what the interest rate will be for the next renewal term.

The automatic renewal of this certificate may be prevented if one of the following things happens:

(1) This certificate is personally presented for payment on a maturity date or within 10 days after the maturity date; or

(2) We receive written notice from the depositor before a maturity date of their intention to cash in this certificate.

Your deposit ☐ will ☒ will not earn interest after final maturity.

Endorsements (Sign only when requesting withdrawal):

x _____

x _____

If any withdrawal reduces the account balance below the "minimum balance required," the remaining balance in the account will earn interest at the annual rate of _____ % until the account balance again equals or exceeds the "minimum balance required."

☐ **Additions:** If checked, you may make additions to this account in an amount equal to or greater than $ _____ at any time.

☐ **Additions To Minimum Notice Accounts:** An addition to a minimum notice account will not be permitted if at the time of the proposed addition, a request for withdrawal is pending which would, within the minimum notice period following the proposed addition, reduce the account balance below the minimum balance required. If this account has a minimum notice of at least seven and not more than _____ days, additional deposits must remain in this account for a period equal to at least the notice period before such funds may be withdrawn without the imposition of an early withdrawal penalty.

☐ **Additions to Single Maturity and Automatically Renewable Accounts** (check one):

☐ Your addition must remain on deposit for a period of time which is not less than the original term of this certificate. This means that your next (and each succeeding) maturity date will be the date which follows the date of the addition by a period of time equal to the original term of this account.

☐ Your addition must remain on deposit for a period of time which is not less than the original term of this certificate. This means that the first (but not succeeding) maturity date for the addition will be the second regularly scheduled maturity date following the date of the addition. Thereafter, all funds on deposit for the period of time equal to at least the original term will have the same maturity date.

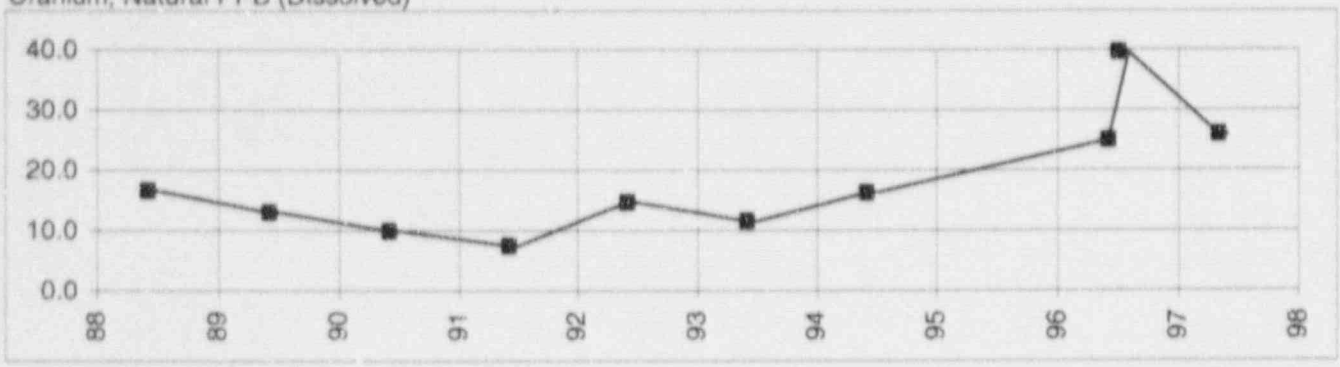
☐ Your addition will not extend the maturity of all, or any portion, of the funds on deposit. Additions will earn interest from the date of deposit, and will mature at the same time as the first deposit.

7/31 CERTIFICATE OF DEPOSIT

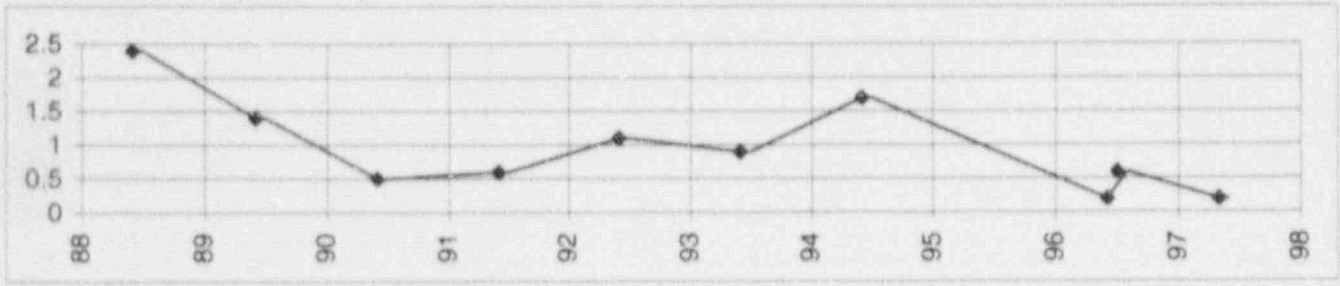
Original

C-1, Crooks Creek above discharge

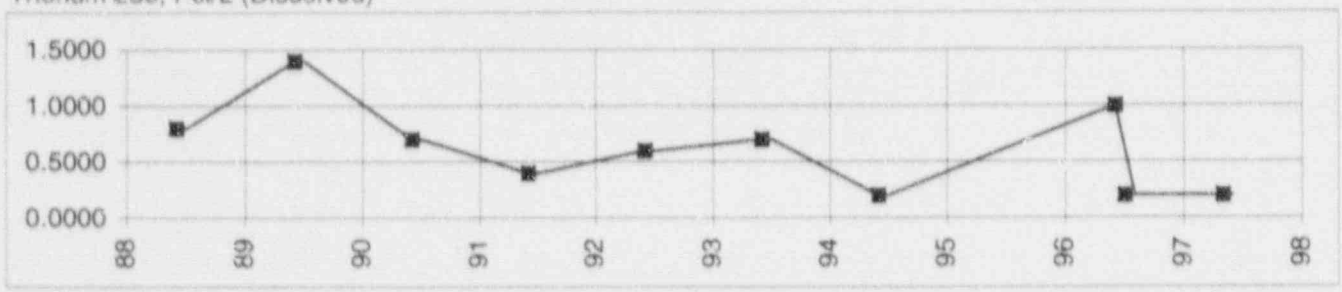
Uranium, Natural PPB (Dissolved)



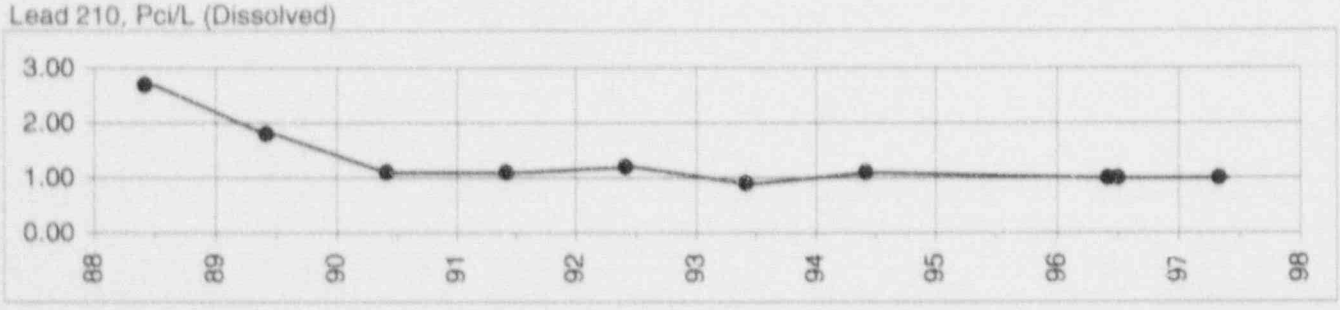
Radium 226, Pci/L (Dissolved)



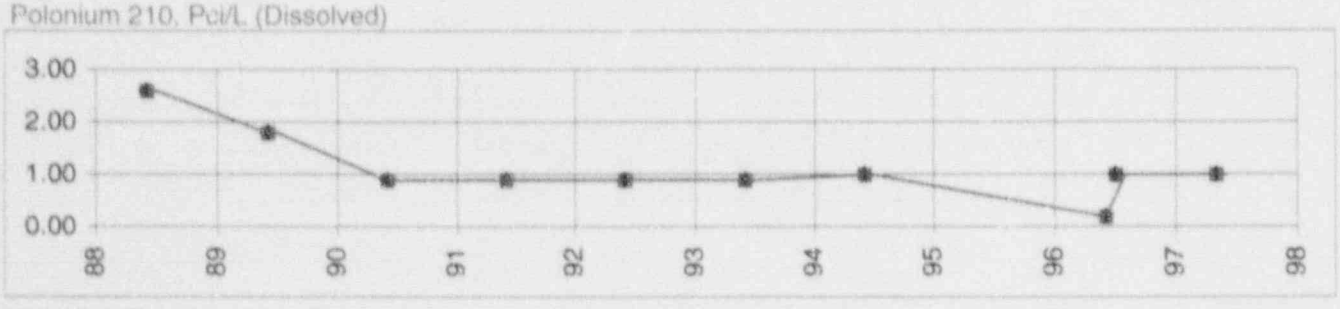
Thorium 230, Pci/L (Dissolved)



Lead 210, Pci/L (Dissolved)



Polonium 210, Pci/L (Dissolved)



Migration Assessment for WDEQ Series Parameters

Sampler Number

1.Ken Webber 4.
2. WAMCO LAB 5.
3. U.S. Energy 6.

Well of Surface Location : Crooks Creek (SMP C-1)
Water Type: Surface Above Discharge
Elev:

Parameters	Dissolved and Total	Units	Date and Sampler Number					
			8/19/92	7/13/93	6/27/94	6/4/96	6/26/96	5/16/97
			2	2	2	3	3	3
TEMPERATURE (FIELD)		C			16.8			
TOTAL DISSOLVED SOLIDS		Mg/L	207	220	234			
TOTAL SUPSPENDED SOLIDS		Mg/L	5.1	3.6	19.8			
SODIUM		Mg/L						
POTASSIUM		Mg/L						
CALCIUM		Mg/L						
MAGNESIUM		Mg/L						
SULFATE		Mg/L						
CHLORIDE		Mg/L						
CARBONATE		Mg/L CO3						
BICARBONATE		Mg/L HCO3						
HYDROXIDE (OH)		Mg/L						
pH (LAB)		S.U.	7.68	8.14	7.72	8.4	8.12	7.74
pH (FIELD)		S.U.			7.5			
CONDUCTIVITY (LAB)		UMHOS/COM @ 25 C			420			
CONDUCTIVITY (FIELD)		UMHOS/COM @ 25 C			410			
TOTAL MILLIEQUIV. MAJOR CATIONS		C						
TOTAL MILLIEQUIV. MAJOR ANIONS		C						
ABSOLUTE VALUE, CHARGED BAL								
AMMONIA AS N		Mg/L						
NITRATE AS N		Mg/L						
NITRITE AS N		Mg/L						
FLORIDE		Mg/L						
TOTAL ALKALINITY AS CACO3		Mg/L						
TOTAL HARDNESS AS CACO3		Mg/L						
BORON	D	Mg/L						
	T	Mg/L						
ALUMINUM	D	Mg/L						
	T	Mg/L						
ARSENIC	D	Mg/L						
	T	Mg/L						
BARIUM	D	Mg/L						
	T	Mg/L						
CADMIUM	D	Mg/L						
	T	Mg/L						
CHROMIUM	D	Mg/L						
	T	Mg/L						
COPPER	D	Mg/L						
	T	Mg/L						
IRON	D	Mg/L						
	T	Mg/L						
LEAD	D	Mg/L						
	T	Mg/L						
MANGANESE	D	Mg/L						
	T	Mg/L						
MERCURY	D	Mg/L						
	T	Mg/L						
NICKEL	D	Mg/L						
	T	Mg/L						
SELENIUM	D	Mg/L						
	T	Mg/L						
ZINC	D	Mg/L						
	T	Mg/L						
MOLYBDENUM	D	Mg/L						
	T	Mg/L						
URANIUM	D	Mg/L	0.0147	0.0116	0.0068	0.025	0.0397	0.026
	T	Mg/L			0.0163	0.026	0.0402	0.0263
VANADIUM	D	Mg/L						
	T	Mg/L						
RADIUM-226	D	Pci/L	1.1 ± 0.3	0.9 ± 0.3	1.6 ± 0.5	0.2	0.5±0.2	<.02
	T	Pci/L			1.7 ± 0.5	1.1	0.7±0.3	<.02
POLONIUM-210	D	1x10-9uCi/ML	0.9 ± 1.0	0.9 ± 1.0	0.9 ± 1.1	0.2	<1.0	<.01
	T	1x10-9uCi/ML			1.0 ± 1.1	0.2	<1.0	<.01
THORIUM-230	D	1x10-9uCi/ML	0.6 ± 0.5	0.7 ± 0.6	0.2 ± 0.6	1	<0.2	<0.2
	T	1x10-9uCi/ML			0.2 ± 0.6	1	<0.2	<0.2
LEAD-210	D	1x10-9uCi/ML	1.2 ± 1.1	0.9 ± 1.0	1.1 ± 1.3	1	<1.0	<.01
	T	1x10-9uCi/ML			1.1 ± 1.3	1	<1.0	<.01
TOC		Mg/L						
STATIC WATER LEVEL (FIELD)		(ELEV. FT.)						
DATE								

Notes:

ENERG ABORATORIES, INC.
SHIPPING: 2393 SALT CREEK HIGHWAY • CASPER, WY 82601
MAILING: P.O. BOX 3258 • CASPER, WY 82602
E-mail: energy@trib.com • FAX: (307) 234-1639 • PHONE: (307) 235-0515 • TOLL FREE: (888) 235-0515

LABORATORY ANALYSIS REPORT - U.S. ENERGY

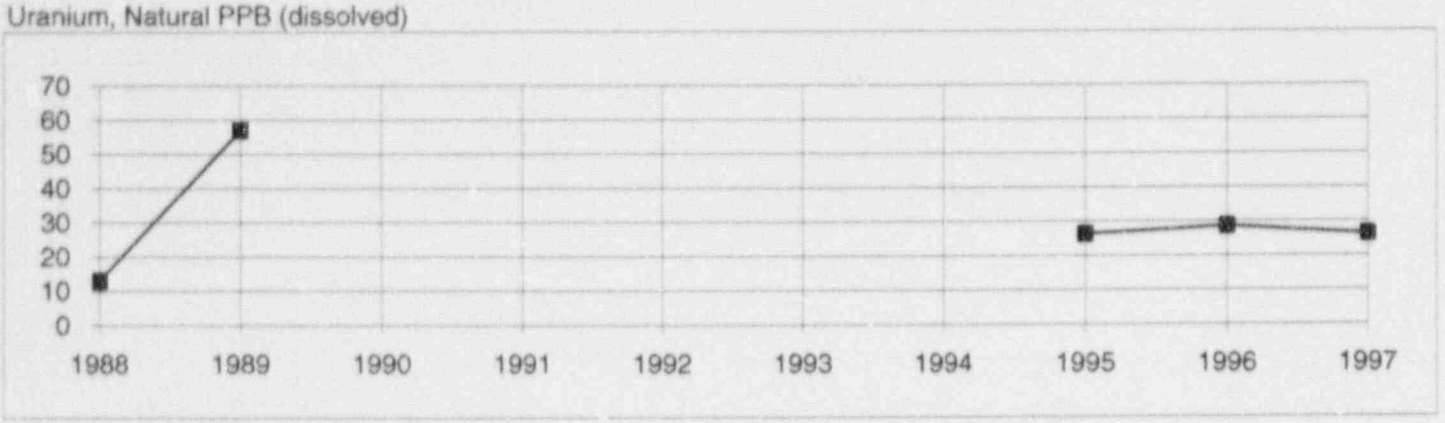
Sample ID:	**Upstream C-1**
Laboratory ID:	**97-27690**
Sample Matrix:	**Water**
Sample Date:	**05-16-97**
Report Date:	**June 17, 1997**

Non-Metals		Units	Detection Limit	Results
pH	-	std. units	0.10	7.74

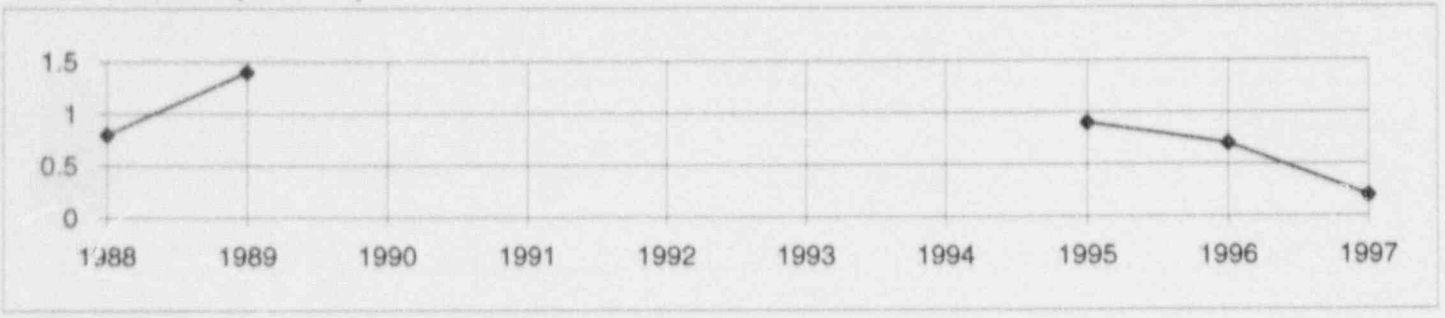
Radiometric				
Uranium, dissolved	^{Nat}U	mg/L	0.0003	0.026
Uranium , suspended	^{Nat}U	mg/L	0.0003	< 0.0003
Radium 226, dissolved	^{226}Ra	pCi/L	0.2	< 0.2
Radium Precision ±				
Radium 226, suspended	^{226}Ra	pCi/L	0.2	< 0.2
Radium Precision ±				
Thorium 230, dissolved	^{230}Th	pCi/L	0.2	< 0.2
Thorium Precision ±				
Thorium 230, suspended	^{230}Th	pCi/L	0.2	< 0.2
Thorium Precision ±				
Lead 210, dissolved	^{210}Pb	pCi/L	1.0	< 1.0
Lead Precision ±				
Lead 210, suspended	^{210}Pb	pCi/L	1.0	< 1.0
Lead Precision ±				
Polonium 210, dissolved	^{210}Po	pCi/L	1.0	< 1.0
Polonium Precision ±				
Polonium 210, suspended	^{210}Po	pCi/L	1.0	< 1.0
Polonium Precision ±				

C-2, Crooks Creek below discharge

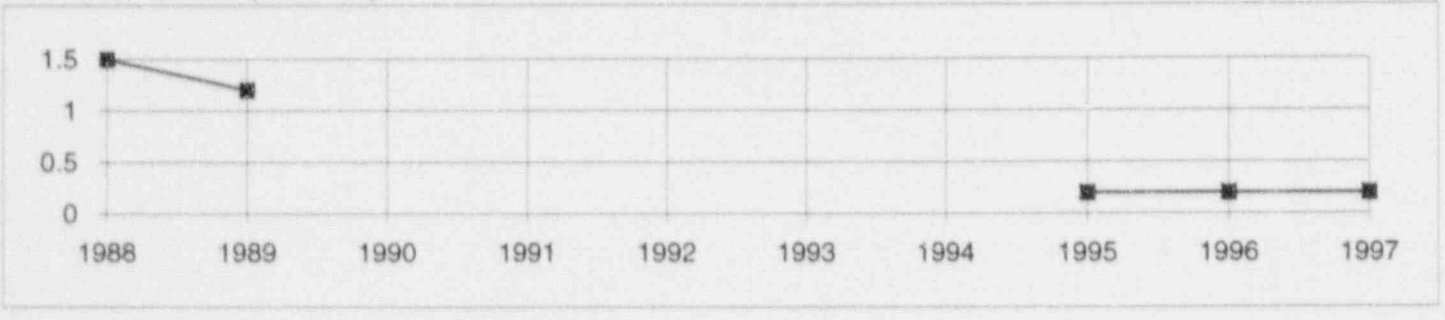
Uranium, Natural PPB (dissolved)



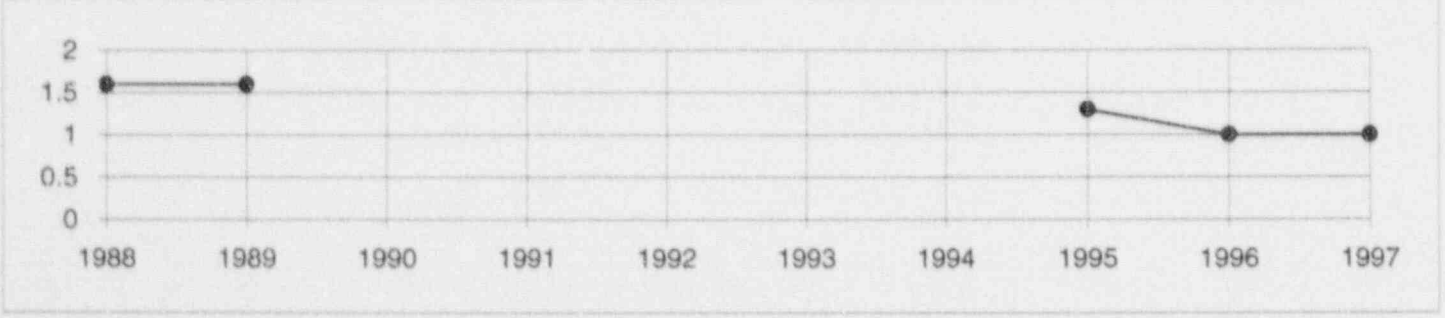
Radium 226, Pci/L (dissolved)



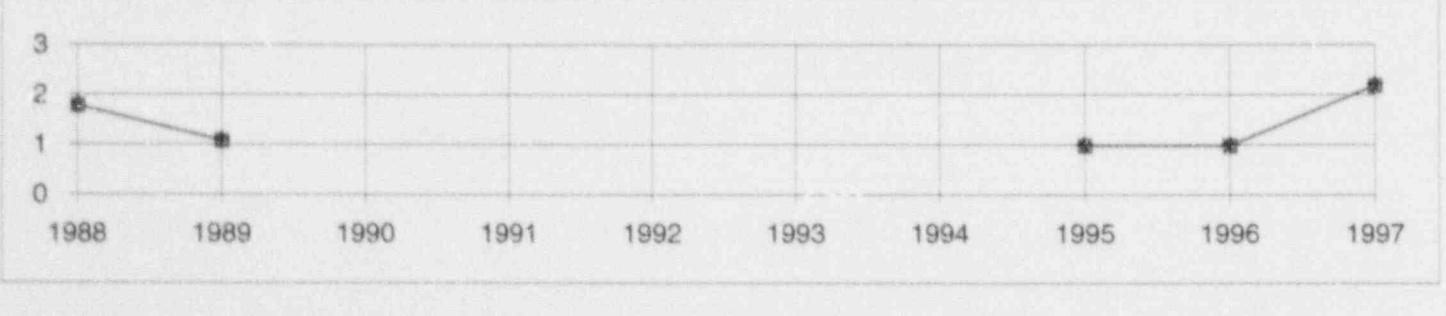
Thorium 230, Pci/L (dissolved)



Lead 210, Pci/L (dissolved)



Polonium 210, Pci/L (dissolved)



Migration Assessment for WDEQ Series Parameters

Sampler Number

Well of Surface Location : Crooks Creek (SMP C-2)
1.Ken Webber 4.
2. WAMCO LAB 5.
3. U.S. Energy 6.

Water Type: Ground Below Discharge

Elev:

Parameters	Dissolved and Total	Units	Date and Sampler Number					
			8/18/88	11/6/89	7/5/95	6/26/96	5/16/97	
			2	2	3	3	3	
TEMPERATURE (FIELD)		C						
TOTAL DISSOLVED SOLIDS		Mg/L	220	282	262			
TOTAL SUSPENDED SOLIDS		Mg/L		28.8				
SODIUM		Mg/L						
POTASSIUM		Mg/L						
CALCIUM		Mg/L						
MAGNESIUM		Mg/L						
SULFATE		Mg/L						
CHLORIDE		Mg/L						
CARBONATE		Mg/L CO3						
BICARBONATE		Mg/L HCO3						
HYDROXIDE (OH)		Mg/L						
pH (LAB)		S.U.	7.31	8.22	8.2	8.12	7.78	
pH (FIELD)		S.U.						
CONDUCTIVITY (LAB)		UMHOS/COM @ 25 C			409			
CONDUCTIVITY (FIELD)		UMHOS/COM @ 25 C						
TOTAL MILLIEQUIV. MAJOR CATIONS		C						
TOTAL MILLIEQUIV. MAJOR ANIONS		C						
ABSOLUTE VALUE, CHARGED BAL								
AMMONIA AS N		Mg/L						
NITRATE AS N		Mg/L						
NITRITE AS N		Mg/L						
FLORIDE		Mg/L						
TOTAL ALKALINITY AS CAC03		Mg/L						
TOTAL HARDNESS AS CAC03		Mg/L						
BORON	D	Mg/L						
	T	Mg/L						
ALUMINUM	D	Mg/L						
	T	Mg/L						
ARSENIC	D	Mg/L						
	T	Mg/L						
BARIUM	D	Mg/L						
	T	Mg/L						
CADMIUM	D	Mg/L						
	T	Mg/L						
CHROMIUM	D	Mg/L						
	T	Mg/L						
COPPER	D	Mg/L						
	T	Mg/L						
IRON	D	Mg/L						
	T	Mg/L						
LEAD	D	Mg/L						
	T	Mg/L						
MANGANESE	D	Mg/L						
	T	Mg/L						
MERCURY	D	Mg/L						
	T	Mg/L						
NICKEL	D	Mg/L						
	T	Mg/L						
SELENIUM	D	Mg/L						
	T	Mg/L						
ZINC	D	Mg/L						
	T	Mg/L						
MOLYBDENUM	D	Mg/L						
	T	Mg/L						
URANIUM	D	Mg/L	0.0569	0.03	0.0263	0.0286	0.026	
	T	Mg/L	0.0615		0.0273	0.0273	0.0263	
VANADIUM	D	Mg/L						
	T	Mg/L						
RADIUM-226	D	Pci/L	1.4 ± 0.3	0.8 ± 0.3	0.7±0.5	0.6±0.2	<.02	
	T	Pci/L	1.8±0.4		0.8±0.5	0.6±0.4	<.02	
POLONIUM-210	D	Pci/L	1.1±0.8	1.8 ± 0.9	<1.0	<1.0	2.2	
	T	Pci/L	2.1±1.1		<1.0	<1.0	3.4	
THORIUM-230	D	Pci/L	1.2±0.5	1.5±0.5	<0.2	<0.2	<0.2	
	T	Pci/L	1.7±0.6		<0.2	<0.2	<0.2	
LEAD-210	D	Pci/L	1.6±1.4	1.8±0.4	1.3±1.1	<1.0	<1.0	
	T	Pci/L	2.2±1.4		<1.0	<1.0	<1.0	
TOC		Mg/L						
STATIC WATER LEVEL (FIELD)		(ELEV. FT.)						
DATE								

Notes:

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LABORATORY ANALYSIS REPORT - U.S. ENERGY

Sample ID:	**Downstream C-2**
Laboratory ID:	**97-27691**
Sample Matrix:	**Water**
Sample Date:	**05-16-97**
Report Date:	**June 17, 1997**

Non-Metals		Units	Detection Limit	Results
pH	-	std. units	0.10	7.78

Radiometric				
Uranium, dissolved	^{Nat}U	mg/L	0.0003	0.026
Uranium , suspended	^{Nat}U	mg/L	0.0003	< 0.0003
Radium 226, dissolved	^{226}Ra	pCi/L	0.2	< 0.2
Radium Precision ±				
Radium 226, suspended	^{226}Ra	pCi/L	0.2	< 0.2
Radium Precision ±				
Thorium 230, dissolved	^{230}Th	pCi/L	0.2	< 0.2
Thorium Precision ±				
Thorium 230, suspended	^{230}Th	pCi/L	0.2	< 0.2
Thorium Precision ±				
Lead 210, dissolved	^{210}Pb	pCi/L	1.0	< 1.0
Lead Precision ±				
Lead 210, suspended	^{210}Pb	pCi/L	1.0	< 1.0
Lead Precision ±				
Polonium 210, dissolved	^{210}Po	pCi/L	1.0	2.2
Polonium Precision ±				0.1
Polonium 210, suspended	^{210}Po	pCi/L	1.0	1.2
Polonium Precision ±				0.1
Polonium 210, total	^{210}Po	pCi/L	1.0	3.4
Polonium Precision ±				0.2

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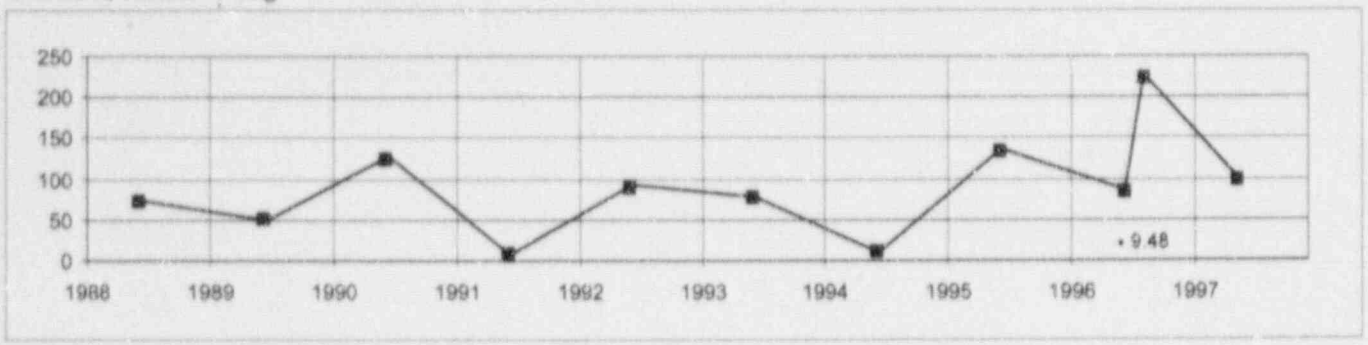
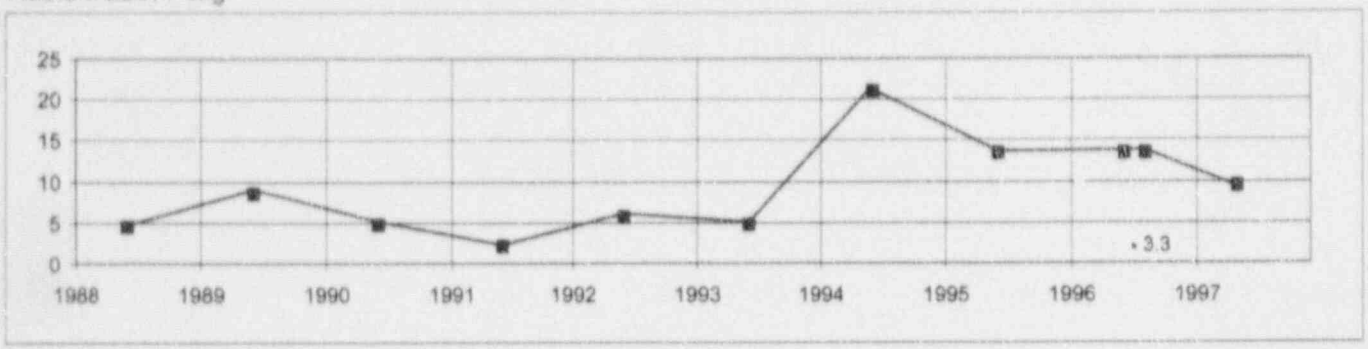
Sediment 50 yards down drainage

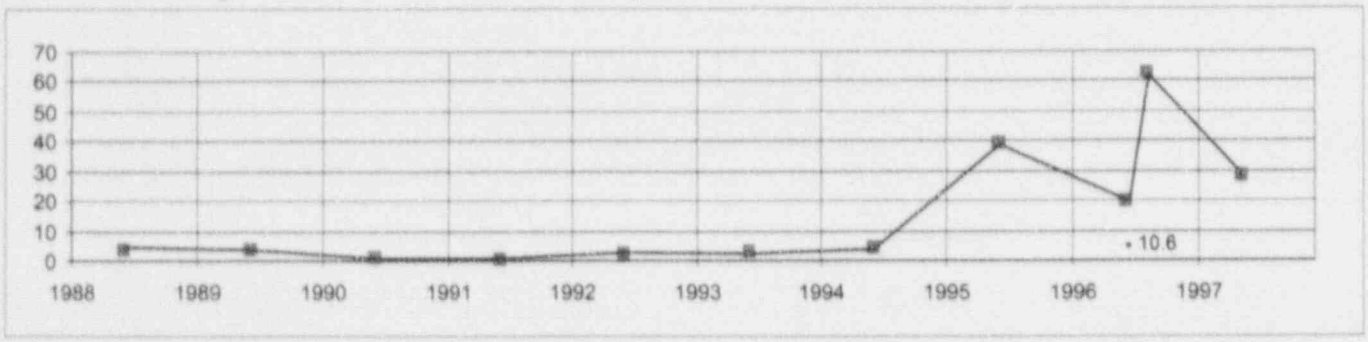
Uranium, Natural Pci/g



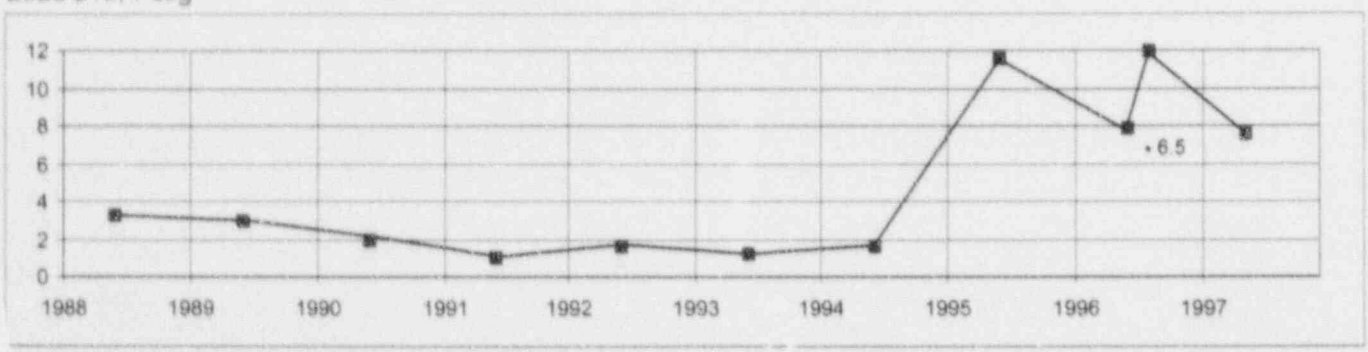
Radium 226, Pci/g



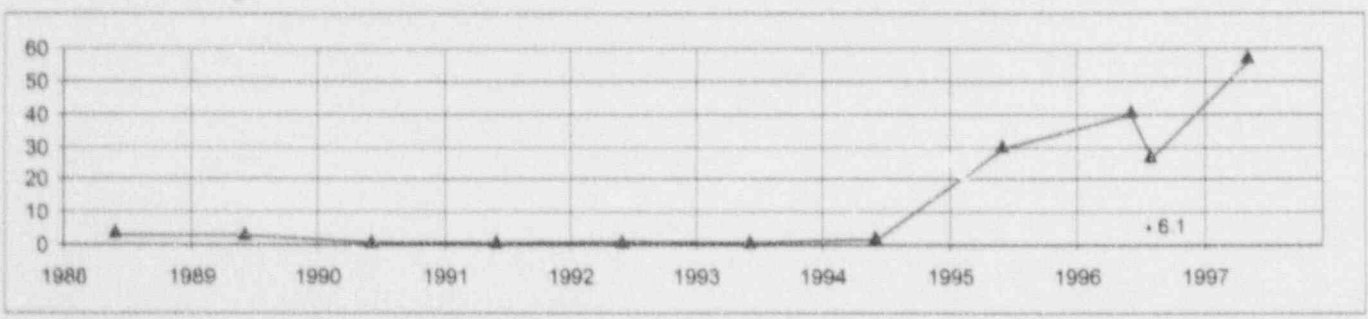
Thorium 230, Pci/g



Lead 210, Pci/g



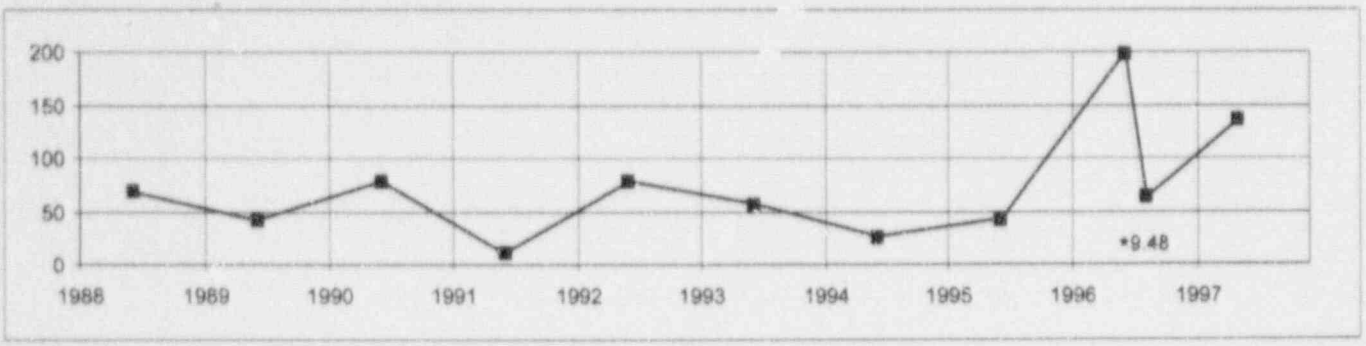
Polonium 210, Pci/g



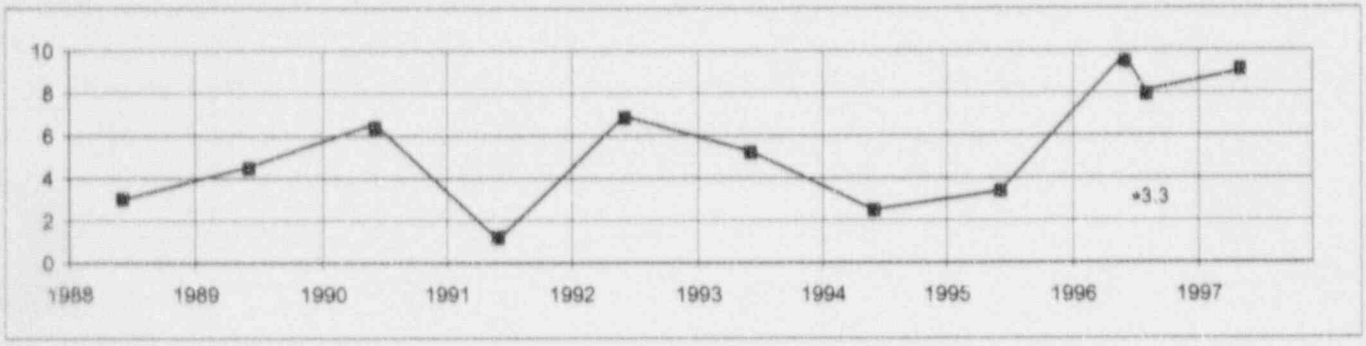
* denotes the highest result from three baseline samples.

Sediment 150 yards down drainage

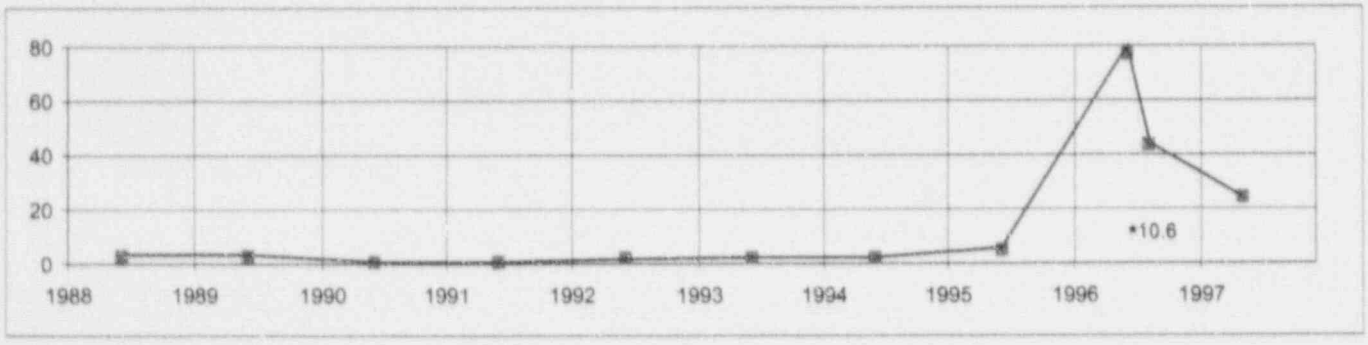
Uranium, Natural Pci/g



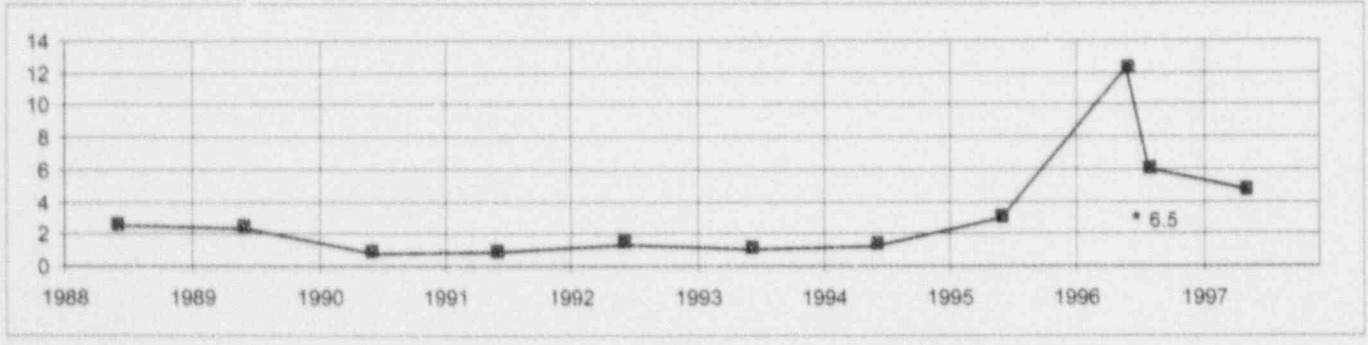
Radium 226, Pci/g



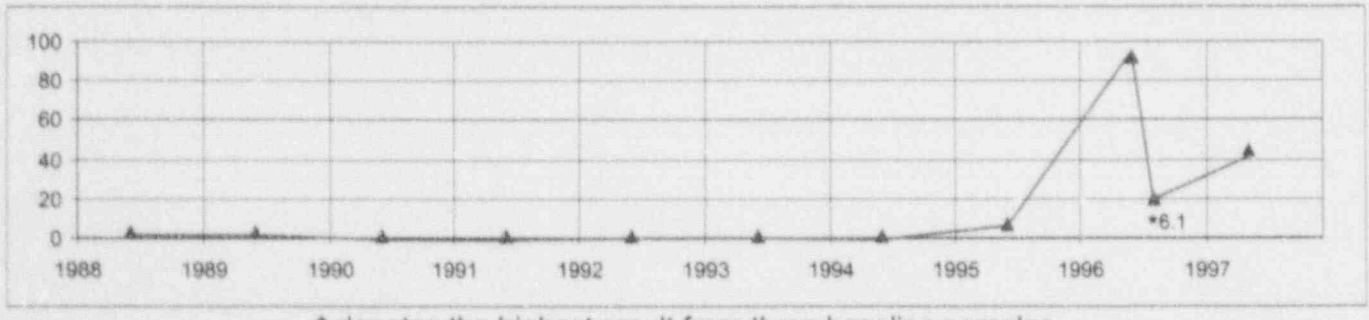
Thorium 230, Pci/g



Lead 210, Pci/g



Polonium 210, Pci/g



* denotes the highest result from three baseline samples.

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LABORATORY ANALYSIS REPORT - U. S. ENERGY

	GMIX	
Project:		
Sample ID:	150' Down	50' Down
Laboratory ID:	97-28001	97-28002
Sample Matrix:	Soil	Soil
Sample Date/Time:	05-23-97	05-23-97
Date Received:	05-28-97	05-28-97
Report Date:	June 18, 1997	

Radiometric		Method	Detection Limit	Units	Results		Date Analyzed
Uranium	^{238}U	908.1	0.01	pCi/g	136	98.7	06-05-97
Radium-226	^{226}Ra	903.0	0.01	pCi/g	9.1	9.5	06-16-97
Radium Precision ±					0.3	0.3	
Thorium-230	^{230}Th	907.0	0.01	pCi/g	24.2	28.6	06-12-97
Thorium Precision ±					0.9	1.1	
Lead-210	^{210}Pb	NERHL-65-4	0.05	pCi/g	4.8	7.6	06-18-97
Lead Precision ±					0.6	0.7	
Polonium-210	^{210}Po	Precipitation	0.05	pCi/g	44.3	57.7	06-09-97
Polonium Precision ±					1.6	1.9	

The 150' down and 50' down should reflect 150 yds down and 50 yds down.
Ken Weber

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