



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 29, 1996

PUBLIC
COPY
JUL 16 1997

030-16055
34-19089-01

MEMORANDUM TO: Cynthia D. Pederson, Director
Division of Nuclear Materials Safety, RIII

FROM: Donald A. Cool, Director
Division of Industrial and
Medical Nuclear Safety, NMSS *[Signature]*

SUBJECT: OBSERVATION OF AND CONCLUSION FROM THE ANALYSIS
REPORTS FOR COBALT-60 IN TANK 173

The Division of Industrial and Medical Nuclear Safety has reviewed the results of the analyses of Tank 173. The October 4, 1996, report from Outreach Laboratory (Attachment 1) indicated a positive result for Cobalt-60 above their minimum detectable activity (MDA) for a filter sample; the analysis for Cobalt-60 in the *[illegible]* sample before filtering was below their detection limits. Although the Northeast Ohio Regional Sewer District's (NEORS) sample indicated slightly higher than their MDA, the results from Advanced Medical Systems, Inc.'s (AMS) contract laboratory, Lockheed Analytical Services, (Attachment 2), and the confirmatory analysis from RIII laboratory (Attachment 3) did not confirm this presence of insoluble Cobalt-60. Based on the information stated, a discharge of Tank 173 would not be an apparent violation of 10 CFR 20.2003.

The results were subsequently transmitted to NEORS and AMS by Region III.

Attachments:

1. Report fm Outreach Lab.
2. Report fm Lockheed Analytical Services
3. Report fm Peak Analysis

CONTACT: Joe DeCicco, NMSS
(301) 415-7833

250024

9611040045 XA

11/25/96
14pp.

NOV 01 1996

31 ML
DH

Weber



Northeast Ohio Regional Sewer District

3826 Euclid Avenue • Cleveland, Ohio 44115-2504

216 • 881 • 6600

FAX: 216 • 881 • 9709

October 4, 1996

OPTIONAL FORM 90 (7-90)

FAX TRANSMITTAL

To	Joe DeLuco	From	Mike Weber
Dept./Agency	NMSS	Phone #	
Fax #		Fax #	
NSN 7540-01-217-7868		5099-101	
GENERAL SERVICES ADMINISTRATION			

Mr. John Madera
U. S. Nuclear Regulatory Commission
Region III
901 Warrenville Road
Lisle, Illinois 60532-4351

Re: Proposed Discharge of Advanced Medical Systems, Inc. Tanks 173

Dear Mr. Madera:

Attached please find test data that demonstrates that Tank 173 at Advanced Medical Systems, Inc. contains detectable components of insoluble Cobalt-60. The insolubility determination was made according to NRC-approved test methods following good sample collection, chain-of-custody and laboratory practices. As you know, the relevant regulation, 10 CFR 20.2003, indicates that only radioactive material which is shown to be readily soluble in water or is readily dispersible biological material may be discharged. Therefore, a discharge of Tank 173 would be a violation of 10 CFR 20.2003. The NRC should therefore prohibit its discharge.

In the event that the NRC chooses not to prohibit these discharge, please give the District adequate time to pursue other avenues. Please note once again that *post facto* notification provided by NRC with respect to its determinations on its testing is inadequate notice.

Very truly yours,

Lawrence K. English
Assistant General Counsel

cc: Richard N. Connelly

RECEIVED**OCT 08 1996****REGION III**

ATTACHMENT 1

OCT 08 1996

9611040054 XA 3pp 10-4-96

OCT- 4-96 FRI 11:27

10/04/1996 09:45

9182510000

OUTREACH LABORATORY

P.01

PAGE 02

OUTREACH LABORATORY

ANALYTICAL REPORT

PROJECT NO: 860576CLIENT: N.E.O.R.S.D.DATE SUBMITTED: 2-Oct-96DATE REPORTED: 4-Oct-96

Sample ID	Date	Matrix	MDA pCi/l	Cobalt-60 pCi/l
LRW-8275-277 SOLUBLE	10/1/96	Water	2.8	BDL
LRW-8275-277 INSOLUBLE	10/1/96	Solid	2.8	BDL
LRW-8275-278 SOLUBLE	10/1/96	Water	3.1	BDL
LRW-8275-278 INSOLUBLE	10/1/96	Solid	2.1	BDL
LRW-8275-279 SOLUBLE	10/1/96	Water	2.9	BDL
LRW-8275-279 INSOLUBLE	10/1/96	Solid	2.8	3.4 +/- 1.8
LRW-8275-280 SOLUBLE	10/1/96	Water	5.8	BDL
LRW-8275-280 INSOLUBLE	10/1/96	Solid	5.4	BDL

TANK 173

7.6 ± 3.6 dpm

OR

7.6 ± 47%

Post-It® Fax Note	7671	Date	10-4	# of pages	2
To	LENGUISH	From	KASBERG		
Co./Dept.	LEGAL	Co.	WDIS		
Phone #		Phone #	641-6000 X-295		
Fax #	881-4407	Fax #	641-8118		

MDA = Minimum Detectable Activity

BDL = Below Detection Limit

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P. 02

OUTREACH LAB

9-22-2008

18/04/1996 09:45

US NRC REGION III ID:708-515-1259 OCT 17'96 7:10 NO.001 P.03

பெரியகோட்டை/புதுச்சேரி

960576.

PAGE 1 OF 3

Advanced Medical Systems, Inc.

Fax Cover Sheet

Date 10/17/96

1020 London Road

Cleveland, Ohio 44110

(216) 892-3270

Fax (216) 892-3209

ATTN: M.ve WeberFAX NO.: (708) 515-1259COMPANY: USNRCFROM: Chris Reed

EXT.

SUBJECT: Lockheed Lab Results

MESSAGE

Here's The Fax and FactsChris

LOCKHEED MARTIN



Lockheed Analytical Services
878 Kelly Johnson Drive
Las Vegas, NV 89119

702 361-3955 ext. 325
fax 702 361-8146

FAX TRANSMITTAL COVER

DATE: October 8, 1996

NUMBER OF PAGES (including cover) 1

FROM: Scott Corallo

TO: AMS - Steve Haddock

FAX: (216) 892-3269

In response to your request, the CO-60 result of 1 pCi/L is less than the minimal detectable activity (MDA) which was 2 pCi/L. If you should have any questions please call me.

LOCKHEED ANALYTICAL SERVICES

RADIOCHEMISTRY DATA REPORT

Account Name: IBM, Inc.

Project Name: FAST TAT GAMMA SPEC

Project Desc:

Client Sample ID: W-1000796-001

Date Collected: 01-OCT-96

Matrix: Water

Login Number: L8101

Date Received: 08-OCT-96

Cs-68

LAA-0063 42351

1.

1.7

1.9

BC1/L

08-OCT-96 L8101-1

***** G A M M A S P E C T R U M A N A L Y S I S *****

Report Generated On : 10-16-96 10:13:41 AM

Sample Title : AMS FILTERS - TANK 173
Spectrum Description : AMS FILTERS - TANK 173
Sample Identification : A961606.CNF
Sample Type : SMEARS
Sample Description : A961606.CNF
 AMS FILTERS-173
 96-1606 THRU 1609
 WATER SAMPLES (TANK)

Sample Geometry : 94A1

Peak Locate Threshold : 4.00
Peak Locate Range (in channels) : 1 - 8192
Peak Area Range (in channels) : 1 - 8192
Identification Energy Tolerance : 1.500 keV

Sample Size : 1.000E+00 EACH

Sample Taken On : 10-11-96 12:00:00 PM
Acquisition Started : 10-15-96 9:34:32 AM

Live Time : 88355.8 seconds
Real Time : 88360.0 seconds

24.5 hrs

Energy Calibration Used Done On : 2-01-96

Efficiency Calibration ID : 94A1
Efficiency Calibration Used Done On : 8-26-94

Peak Analysis Report

10-16-96 10:13:42 AM

Page 2

***** P E A K A N A L Y S I S R E P O R T *****

Detector Name: DET01

Sample Title: AMS FILTERS - TANK 173

Peak Analysis Performed on: 10-16-96 10:13:35 AM

Peak Analysis From Channel: 1

Peak Analysis To Channel: 8192

	Peak No.	ROI start	ROI end	Peak centroid	Energy (keV)	Net Peak Area	Net Area Uncert.	Continuum Counts
	1	130-	139	133.61	63.26	2.35E+02	98.97	9.84E+02
M	2	149-	179	156.91	74.93	3.35E+02	160.04	8.05E+02
m	3	149-	179	161.37	77.16	2.14E+02	118.77	8.41E+02
m	4	149-	179	176.08	84.53	1.21E+02	95.12	9.00E+02
	5	186-	199	192.29	92.65	6.02E+02	135.74	1.46E+03
	6	291-	299	295.18	144.18	9.25E+00	86.25	8.71E+02
	7	374-	384	378.28	185.79	3.25E+02	99.15	8.98E+02
	8	477-	488	483.70	238.58	2.54E+02	100.83	9.15E+02
	9	591-	601	596.92	293.28	9.26E+01	76.95	5.84E+02
	10	677-	691	682.69	338.23	1.04E+02	85.04	5.92E+02
	11	704-	714	709.68	351.75	2.26E+02	73.10	4.68E+02
	12	1011-	1060	1027.21	510.76	8.16E+02	187.04	1.09E+03
	13	1165-	1177	1171.77	583.16	1.05E+02	54.73	2.45E+02
	14	1217-	1230	1223.60	609.11	1.93E+02	62.39	2.84E+02
	15	1816-	1835	1826.41	910.99	7.70E+01	53.18	1.80E+02
	16	1930-	1949	1941.62	968.68	9.60E+01	51.90	1.65E+02
	17	2910-	2932	2923.45	1460.37	2.16E+02	47.38	8.91E+01
	18	3519-	3539	3529.94	1764.09	2.71E+01	33.71	7.09E+01
	19	5211-	5238	5224.57	2613.73	1.04E+02	31.38	3.15E+01

M = First peak in a multiplet region

m = Other peak in a multiplet region

Errors quoted at 2.000 sigma

Peak Efficiency Report

10-16-96 10:13:43 AM

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***** P E A K E F F I C I E N C Y R E P O R T *****

Detector Name: DET01

Sample Title: AMS FILTERS - TANK 173

Peak Analysis Performed on: 10-16-96 10:13:35 AM

Peak No.	Energy (keV)	FWHM (keV)	Net Peak Area	Net Area Uncertainty	Peak Efficiency	Efficiency Uncertainty
1	63.26	1.2427	2.35E+02	98.97	1.31E-01	3.10E-02
M 2	74.93	1.1076	3.35E+02	160.04	1.45E-01	2.22E-02
m 3	77.16	1.1141	2.14E+02	118.77	1.47E-01	2.07E-02
m 4	84.53	1.1338	1.21E+02	95.12	1.52E-01	1.63E-02
5	92.65	1.4089	6.02E+02	135.74	1.56E-01	1.26E-02
6	144.18	1.4354	9.25E+00	86.25	1.50E-01	1.01E-02
7	185.79	1.5973	3.25E+02	99.15	1.30E-01	8.96E-03
8	238.58	1.6274	2.54E+02	100.83	1.04E-01	7.02E-03
9	295.28	1.7683	9.26E+01	76.95	8.23E-02	6.09E-03
10	338.23	1.7637	1.04E+02	85.04	7.24E-02	5.58E-03
11	351.75	1.9131	2.26E+02	73.10	6.97E-02	5.49E-03
12	510.76	2.6438	8.16E+02	187.04	4.70E-02	2.75E-03
13	583.16	2.1443	1.05E+02	54.73	4.05E-02	2.38E-03
14	609.11	1.8863	1.93E+02	62.39	3.85E-02	2.32E-03
15	910.99	2.3753	7.70E+01	53.18	2.41E-02	1.35E-03
16	968.68	2.0814	9.60E+01	51.90	2.25E-02	1.19E-03
17	1460.37	2.3750	2.16E+02	47.38	1.45E-02	9.54E-04
18	1764.09	2.3366	2.71E+01	33.71	1.22E-02	8.88E-04
19	2613.73	2.7742	1.04E+02	31.38	9.52E-03	5.55E-03

M = First peak in a multiplet region

m = Other peak in a multiplet region

Errors quoted at 2.000 sigma

Nuclide Identification Report

10-16-96 10:13:44 AM

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 ***** N U C L I D E I D E N T I F I C A T I O N - R E P O R T *****

Sample Title: AMS FILTERS - TANK 173
 Nuclide Library Used: C:\GENIEPC\CAMFILES\MATERIAL.NLB

IDENTIFIED NUCLIDES

Nuclide Name	Id Confidence	Half Life	Energy (keV)	Yield (%)	Activity (pCi/EACH)	Activity Uncertainty
K-40	0.980	1.3E+09Y	1460.81*	10.67	4.267E+01	9.817E+00
TL-208	0.880	1.4E+10Y	510.77*	22.80	2.331E+01	5.547E+00
			583.19*	84.80	9.327E-01	4.912E-01
			860.56	12.50		
FB-212	0.913	1.4E+10Y	2614.53*	99.16	3.385E+00	2.221E+00
			238.63*	43.90	1.700E+00	6.845E-01
			300.09	3.24		
BI-214	0.596	1.6E+03Y	609.31*	44.80	3.432E+00	1.126E+00
			768.36	4.76		
			1120.29	16.80		
			1238.11	5.83		
			1377.67	3.90		
			1764.49*	15.30	4.439E+00	5.525E+00
			2204.09	4.98		
FB-214	0.703	1.6E+03Y	74.81*	6.21	1.141E+01	5.745E+00
			77.11*	10.50	4.253E+00	2.436E+00
			87.30	4.59		
			241.98	7.28		
			295.21*	18.40	1.640E+00	1.560E+00
			351.92*	35.40	2.797E+00	9.330E-01
RA-226	0.990	1.6E+03Y	185.10*	3.30	2.166E+01	6.363E+00
TH-228	0.560	1.4E+10Y	14.37*	1.17	2.085E+01	1.654E+01
			131.54	0.14		
			164.41	0.11		
			215.99	0.27		
TH-231	0.722	7.0E+08Y	81.24	0.88		
			84.21*	6.40	3.812E+00	3.080E+00
			102.27	0.41		
TH-234	1.000	4.5E+09Y	63.29*	3.80	1.450E+01	9.809E+00
			92.60*	5.40	2.192E+01	7.160E+00
U-235	0.714	7.0E+08Y	89.95	2.70		
			93.35*	4.50	2.630E+01	1.753E+01
			105.00	2.10		
			143.76*	10.50	1.802E-01	1.680E+00
			163.33	4.70		
			185.71*	54.00	1.417E+00	4.467E-01
			205.31	4.70		

* = Energy line found in the spectrum.

Energy tolerance used was 1.500

Nuclide confidence index threshold = 0.40

Errors quoted at 2.000 sigma

Nuclide Identification Report

10-16-96 10:13:44 AM

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***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 10-16-96 10:13:31 AM

Peak Locate From Channel: 1

Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
10	338.23	1.1827E-03	81.38
15	910.99	8.7148E-04	69.06
16	968.68	1.0865E-03	54.07

M = First peak in a multiplet region

m = Other peak in a multiplet region

Errors quoted at 2.000 sigma

Interference Corrected Activity Report

10-16-96 10:13:59 AM Page 6

 ***** N U C L I D E I D E N T I F I C A T I O N R E P O R T *****

Sample Title: AMS FILTERS - TANK 173
 Nuclide Library Used: C:\GENIEPC\CAMFILES\MATERIAL.NLB

IDENTIFIED NUCLIDES						
Nuclide Name	Id Confidence	Half Life	Energy (keV)	Yield (%)	Activity (pCi/EACH)	Activity Uncertainty
K-40	0.980	1.3E+09Y	1460.81*	10.67	4.267E+01	9.817E+00
TL-208	0.880	1.4E+10Y	510.77*	22.80	2.331E+01	5.547E+00
			583.19*	84.80	9.327E-01	4.912E-01
			860.56	12.50		
			2614.53*	99.16	3.385E+00	2.221E+00
PB-212	0.913	1.4E+10Y	238.63*	43.90	1.700E+00	6.845E-01
BI-214	0.596	1.6E+03Y	300.09	3.24		
			609.31*	44.80	3.432E+00	1.126E+00
			768.36	4.76		
			1120.29	14.80		
			1238.11	5.83		
			1377.67	3.90		
			1764.49*	15.30	4.439E+00	5.525E+00
			2204.09	4.98		
PB-214	0.703	1.6E+03Y	74.81*	6.21	1.141E+01	5.728E+00
			77.11*	10.50	4.253E+00	2.436E+00
			87.30	4.59		
			241.98	7.28		
			295.21*	18.40	1.870E+00	1.560E+00
RA-226	0.990	1.6E+03Y	351.92*	35.40	2.797E+00	9.330E-01
TH-228	0.560	1.4E+10Y	186.10*	3.50	2.186E+01	6.863E+00
			84.37*	1.17	2.085E+01	1.654E+01
			131.61	0.14		
			166.41	0.11		
TH-231	0.722	7.0E+08Y	215.99	0.27		
			81.24	0.88		
			84.21*	6.40	3.812E+00	3.080E+00
TH-234	1.000	4.5E+09Y	102.27	0.41		
			63.29*	3.80	1.450E+01	9.809E+00
			92.60*	5.40	2.192E+01	7.160E+00
U-235	0.714	7.0E+08Y	89.95	2.70		
			93.35*	4.50	2.630E+01	1.753E+01
			105.00	2.10		
			143.76*	10.50	1.802E-01	1.680E+00
			163.33	4.70		
			185.71*	54.00	1.417E+00	4.467E-01
			205.31	4.70		

* = Energy line found in the spectrum.

Energy tolerance used was 1.500

Nuclide confidence index threshold = 0.40

Errors quoted at 2.000 sigma

Interference Corrected Activity Report

10-16-96 10:13:59 AM Page 7

***** INTERFERENCE CORRECTED REPORT *****

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (pCi/EACH)	Wt mean Activity Uncertainty
K-40	0.980	4.2673E+01	9.8174E+00
TL-208	0.880	1.2123E+00	4.7782E-01
FB-212	0.913	1.7001E+00	6.8453E-01
BI-214	0.596	3.4723E+00	1.1031E+00
FB-214	0.703	2.5527E+00	8.0074E-01
RA-226	0.990	1.5722E+01	2.6492E+01
? TH-228	0.560	2.0851E+01	1.6545E+01
? TH-231	0.722	3.8118E+00	3.0799E+00
TH-234	1.000	1.9035E+01	4.2929E+00
U-235	0.714	3.9774E-01	1.6590E+00

? = nuclide is part of an undetermined solution

X = nuclide rejected by the interference analysis

Errors quoted at 2.000 sigma

***** UNIDENTIFIED PEAKS *****

Peak Locate Performed on: 10-16-96 10:13:31 AM
Peak Locate From Channel: 1
Peak Locate To Channel: 8192

Peak No.	Energy (keV)	Peak Size in Counts per Second	Peak CPS % Uncertainty
10	338.23	1.1827E-03	81.38
15	910.99	8.7148E-04	69.06
16	968.68	1.0865E-03	54.07

M = First peak in a multiplet region

m = Other peak in a multiplet region

Errors quoted at 2.000 sigma

Nuclide MDA Report

10-16-96 10:14:04 AM

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 N U C L I D E M D A R E P O R T

Detector Name: DET01
 Sample Geometry: 93A1
 Sample Title: AMS FILTERS - TANK 173
 Nuclide Library Used: C:\GENIEFC\CAMFILES\MATERIAL.NLB

	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/EACH)	Nuclide MDA (pCi/EACH)
+	K-40	1460.81*	10.67	1.26E+01	1.26E+01
	CO-60	1173.22	100.00	1.28E+00	1.28E+00
		1332.49	100.00	1.34E+00	
	I-131	284.30	6.06	1.48E+01	1.15E+00
		364.48	81.20	1.15E+00	
		636.97	7.27	1.83E+01	
	CS-134	563.23	8.38	1.01E+01	1.11E+00
		569.32	15.43	5.45E+00	
		604.70	97.60	1.11E+00	
		795.84	85.40	1.27E+00	
		801.93	8.73	1.25E+01	
	CS-137	661.65	85.12	1.11E+00	1.11E+00
	TL-201	68.89	27.80	4.67E+00	2.85E+00
		70.82	47.30	2.85E+00	
		80.30	20.80	6.25E+00	
		135.34	2.80	3.89E+01	
		167.43	10.60	1.15E+01	
+	TL-208	510.77*	22.80	8.44E+00	7.69E-01
		583.19*	84.80	7.69E-01	
		860.56	12.50	8.83E+00	
		2614.53*	99.16	1.36E+00	
	FR-211	404.84	3.83	1.89E+01	1.89E+01
		426.99	1.72	4.27E+01	
		766.34	0.71	1.47E+02	
		831.83	3.81	2.82E+01	
+	BI-214	609.31*	44.80	1.68E+00	1.68E+00
		768.36	4.76	2.17E+01	
		1120.29	14.80	9.03E+00	
		1238.11	5.83	2.32E+01	
		1377.67	3.90	3.56E+01	
		1764.49*	15.30	9.07E+00	
		2204.09	4.98	2.84E+01	
+	FR-214	74.81*	6.21	4.71E+00	1.39E+00
		77.11*	10.50	2.71E+00	
		87.30	4.59	9.89E+00	
		241.98	7.28	8.52E+00	
		295.21*	18.40	2.53E+00	
		351.92*	35.40	1.39E+00	
	RA-219	271.23	10.60	5.60E+00	5.60E+00
		401.81	6.50	1.11E+01	
	RA-223	122.32	1.19	3.28E+01	4.32E+00
		144.20	3.26	1.33E+01	

Nuclide MDA Report

10-16-96 10:14:04 AM

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	Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/EACH)	Nuclide MDA (pCi/EACH)
	RA-223	154.19	5.59	7.99E+00	4.32E+00
		269.41	13.60	4.32E+00	
		323.87	3.88	1.64E+01	
		338.32	2.78	2.37E+01	
		445.03	1.18	6.22E+01	
	RA-224	240.99	3.97	1.55E+01	1.55E+01
+	RA-226	186.10*	3.50	1.04E+01	1.04E+01
	TH-227	50.10	8.40	6.60E+00	5.14E+00
		210.60	1.26	4.06E+01	
		236.00	11.50	5.14E+00	
		256.25	6.30	9.12E+00	
		299.90	1.84	3.61E+01	
		329.82	2.90	2.19E+01	
	AC-228	93.35	3.20	1.45E+01	4.56E+00
		129.10	2.23	1.79E+01	
		209.25	3.81	1.33E+01	
		270.24	3.43	1.72E+01	
		327.64	3.20	1.97E+01	
		338.32	11.30	5.83E+00	
		463.01	4.50	1.72E+01	
		794.95	4.34	2.44E+01	
		911.21	26.60	4.56E+00	
		964.60	5.05	2.54E+01	
		968.97	16.20	7.76E+00	
		1587.90	3.26	4.33E+01	
+	TH-228	84.37*	1.17	2.72E+01	2.72E+01
		131.61	0.14	2.96E+02	
		166.41	0.11	4.16E+02	
		215.99	0.27	1.85E+02	
	TH-230	67.67	0.38	1.29E+02	1.29E+02
	PA-231	90.88	1.02	4.70E+01	2.75E+01
		102.00	0.47	8.30E+01	
		283.67	1.60	3.82E+01	
		300.02	2.30	2.89E+01	
		302.65	2.30	2.75E+01	
		330.06	1.30	4.86E+01	
+	TH-231	81.24	0.88	5.35E+01	4.98E+00
		84.21*	6.40	4.98E+00	
		102.27	0.41	9.48E+01	
	TH-232	59.00	0.19	2.73E+02	2.73E+02
+	TH-234	63.29*	3.80	9.71E+00	7.68E+00
		92.60*	5.40	7.68E+00	
	U-234	53.20	0.12	4.30E+02	4.30E+02
+	U-235	89.95	2.70	1.81E+01	6.74E-01
		93.35*	4.50	9.21E+00	
		105.00	2.10	1.86E+01	
		143.76*	10.50	2.81E+00	
		163.33	4.70	9.57E+00	
		185.71*	54.00	6.74E-01	
		205.31	4.70	1.10E+01	
	AM-241	59.54	35.90	1.45E+00	1.45E+00

Nuclide MDA Report

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Nuclide Name	Energy (keV)	Yield (%)	Line MDA (pCi/EACH)	Nuclide MDA (pCi/EACH)
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+ = Nuclide identified during the nuclide identification

* = Energy line found in the spectrum

> = MDA value not calculated

@ = Half-life too short to be able to perform the decay correction