CALORIMETRY EXCHANGE PROGRAM

QUARTERLY DATA REPORT

4TH QUARTER CY92

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MASTER

CALORIMETRY EXCHANGE PROGRAM

QUARTERLY DATA REPORT

4TH QUARTER CY92

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The Calorimetry Sample Exchange Program

The goals of the Calorimetry Sample Exchange Program are:

1. Discuss measurement differences
2. Review and improve analytical measurements and methods
3. Discuss new measurement capabilities
4. Provide data to DOE on measurement capabilities to evaluate shipper-receiver differences
5. Provide characterized or standard materials as necessary for exchange participants
6. Provide a measurement control program for plutonium analysis

A sample of PuO₂ powder is available at each participating site for NDA measurement, including either or both calorimetry and high-resolution gamma-ray spectroscopy, the elements which are typically combined to provide a calorimetric assay of plutonium. The facilities measure the sample as frequently and to the level of precision which they desire, and then submit the data to the Exchange for analysis. The data report includes summary tables for each measurement and charts showing the performance of each laboratory. Comparisons are made to the accepted values for the exchange sample and to data previously reported by that laboratory. This information is presented, in the form of quarterly and annual reports, intended for use by Exchange participants in measurement control programs, or to indicate when bias corrections may be appropriate. No attempt, however, has been made to standardize methods or frequency of data collection, calibration, or operating procedures. Direct comparisons between laboratories may, therefore, be misleading since data have not been collected to the same precision or for the same time periods.

A meeting of the participants of the Calorimetry Exchange is held annually at EG&G Mound Applied Technologies. The purposes of this meeting are to discuss measurement differences, problems, and new measurement capabilities, and to determine the additional activities needed to fulfill the goals of the Exchange.

SUMMARY TABLE

% DIFFERENCE FROM ACCEPTED VALUES FOR THE CALORIMETRY EXCHANGE SAMPLE

	LIVERMORE	LOS ALAMOS	MOUND	HANFORD	ROCKY FLATS CSL	AL	SAVANNAH RIVER
POWER	0.53	0.06	0.06	-0.07	*	*	*
P-EFF	-0.24	-0.02	0.23	0.06	*	*	*
238/239 Pu	-1.02	4.86	3.12	1.95	*	*	*
240/239 Pu	-0.38	0.05	1.08	1.12	*	*	*
241/239 Pu	-0.62	0.25	-0.80	-0.31	*	*	*
Am/239 Pu	-1.50	-0.90	0.48	-0.99	*	*	*
% 238 Pu	-0.99	4.85	3.09	1.89	*	*	*
% 239 Pu	0.02	0.00	-0.03	-0.06	*	*	*
% 240 Pu	-0.36	0.04	1.04	1.06	*	*	*
% 241 Pu	-0.60	0.24	-0.84	-0.37	*	*	*
% 241 Am	-1.48	-0.90	0.44	-1.04	*	*	*

* No data submitted for this measurement this quarter.

RESULTS OF ANALYSIS OF POWER DATA

Fourth Quarter 1992

REPORTING LABORATORY

	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (mW)	****	5.284	0.598	0.623	-0.699	****	****
Std. Dev. (mW)	****	13.541	1.715	1.243	3.148	****	****
Unc. in Mean (mW)	****	2.037	0.388	0.345	0.699	****	****
Mean Error (%)	****	0.53%	0.06%	0.06%	-0.07%	****	****
Std. Dev. (%)	****	1.36%	0.17%	0.13%	0.32%	****	****
Unc. in Mean (%)	****	0.20%	0.04%	0.03%	0.07%	****	****

DIFFERENCE FROM LAST PERIOD

Diff. in Mean Error (mW)	****	11.216	0.375	1.473	0.097	****	****
Diff. in Std. Dev. (mW)	****	0.714	-0.578	1.172	1.133	****	****
Diff. in Mean Error (%)	****	1.13%	0.04%	0.15%	0.01%	****	****
Diff. in Std. Dev. (%)	****	0.07%	-0.06%	0.01%	0.12%	****	****
Number of Data Points	0	6	8	20	20	0	0

LAWRENCE LIVERMORE – POWER DATA 1ST – 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS -- POWER DATA 1ST- 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

*EG&G MOUND - POWER DATA
1ST - 4TH QUARTERS 1992*

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - POWER DATA 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

CALORIMETER DATA
FOURTH QUARTER 1992

ROCKY FLATS PLANT - CHEM STANDARDS LABORATORY
NO DATA REPORTED

LAWRENCE LIVERMORE NATIONAL LABORATORY

#	Date Measured	Instr. ID	Measured Watts	Uncert. 1 STD	Accepted Watts	Ratio M/A	mW Error	Percent Error
1	12-Oct-92	30	0.9915	0.50%	0.9920	0.999	-0.543	-0.05%
2	16-Oct-92	32	0.9828	0.50%	0.9921	0.991	-9.285	-0.94%
3	7-Dec-92	30	1.0011	0.50%	0.9926	1.009	8.473	0.85%
4	11-Dec-92	2	1.0211	0.50%	0.9927	1.029	28.432	2.86%
5	14-Dec-92	32	0.9877	0.50%	0.9927	0.995	-4.999	-0.50%
6	21-Dec-92	30	1.0024	0.50%	0.9928	1.010	9.628	0.97%

LOS ALAMOS NATIONAL LABORATORY

#	Date Measured	Instr. ID	Measured Watts	Uncert. 1 STD	Accepted Watts	Ratio M/A	mW Error	Percent Error
1	29-Oct-92	K8	0.9907	0.05%	0.9922	0.998	-1.521	-0.15%
2	3-Nov-92	K5	0.9927	0.20%	0.9923	1.000	0.427	0.04%
3	13-Nov-92	K7	0.9944	0.05%	0.9924	1.002	2.023	0.20%
4	20-Nov-92	K8	0.9909	0.05%	0.9925	0.998	-1.550	-0.16%
5	30-Nov-92	K8	0.9916	0.05%	0.9926	0.999	-0.954	-0.10%
6	1-Dec-92	K7	0.9949	0.05%	0.9926	1.002	2.336	0.24%
7	11-Dec-92	K3	0.9947	0.15%	0.9927	1.002	2.032	0.20%
8	15-Dec-92	K3	0.9947	0.15%	0.9927	1.002	1.990	0.20%

EG&G MOUND APPLIED TECHNOLOGIES

#	Date Measured	Instr. ID	Measured Watts	Uncert. 1 STD	Accepted Watts	Ratio M/A	mW Error	Percent Error
1	20-Oct-92	128	0.993050	0.15%	0.992127	1.001	0.924	0.09%
2	21-Oct-92	128	0.992479	0.15%	0.992137	1.000	0.341	0.03%
3	27-Oct-92	128	0.993177	0.15%	0.992200	1.001	0.977	0.10%
4	28-Oct-92	128	0.992781	0.15%	0.992210	1.001	0.570	0.06%
5	2-Nov-92	128	0.993987	0.15%	0.992262	1.002	1.724	0.17%
6	4-Nov-92	128	0.992791	0.15%	0.992283	1.001	0.507	0.05%
7	4-Nov-92	111	0.993375	0.17%	0.992283	1.001	1.092	0.11%
8	11-Nov-92	128	0.990368	0.15%	0.992356	0.998	-1.988	-0.20%
9	17-Nov-92	128	0.993703	0.15%	0.992419	1.001	1.284	0.13%
10	18-Nov-92	128	0.992875	0.15%	0.992429	1.000	0.446	0.04%
11	18-Nov-92	111	0.994094	0.17%	0.992429	1.002	1.665	0.17%
12	1-Dec-92	128	0.989212	0.15%	0.992564	0.997	-3.353	-0.34%
13	2-Dec-92	128	0.993369	0.15%	0.992575	1.001	0.794	0.08%
14	2-Dec-92	111	0.994197	0.17%	0.992575	1.002	1.622	0.16%
15	8-Dec-92	128	0.993066	0.15%	0.992637	1.000	0.429	0.04%
16	9-Dec-92	128	0.992844	0.15%	0.992647	1.000	0.197	0.02%
17	9-Dec-92	111	0.994161	0.17%	0.992647	1.002	1.514	0.15%
18	15-Dec-92	128	0.993664	0.15%	0.992710	1.001	0.954	0.10%
19	16-Dec-92	128	0.993818	0.15%	0.992720	1.001	1.098	0.11%
20	16-Dec-92	111	0.994373	0.17%	0.992720	1.002	1.653	0.17%

WESTINGHOUSE HANFORD COMPANY

#	Date Measured	Instr. ID	Measured Watts	Uncert. 1 STD	Accepted Watts	Ratio M/A	mW Error	Percent Error
1	7-Oct-92	4	0.9951	0.20%	0.9920	1.003	3.109	0.31%
2	14-Oct-92	4	0.9898	0.20%	0.9921	0.998	-2.264	-0.23%
3	16-Oct-92	4	0.9904	0.20%	0.9921	0.998	-1.685	-0.17%
4	21-Oct-92	1	0.9918	0.20%	0.9921	1.000	-0.337	-0.03%
5	23-Oct-92	5	0.9928	0.20%	0.9922	1.001	0.642	0.06%
6	28-Oct-92	4	0.9930	0.20%	0.9922	1.001	0.790	0.08%
7	29-Oct-92	3	0.9945	0.20%	0.9922	1.002	2.279	0.23%
8	4-Nov-92	1	0.9898	0.46%	0.9923	0.997	-2.483	-0.25%
9	12-Nov-92	5	0.9990	0.46%	0.9924	1.007	6.633	0.67%
10	17-Nov-93	3	0.9920	0.46%	0.9961	0.996	-4.117	-0.41%
11	18-Nov-92	4	0.9896	0.46%	0.9924	0.997	-2.829	-0.29%
12	20-Nov-92	6	0.9850	0.46%	0.9925	0.992	-7.450	-0.75%
13	24-Nov-92	1	0.9917	0.46%	0.9925	0.999	-0.792	-0.08%
14	4-Dec-92	5	0.9954	0.25%	0.9926	1.003	2.804	0.28%
15	10-Dec-92	4	0.9927	0.25%	0.9927	1.000	0.042	0.00%
16	11-Dec-92	1	0.9893	0.25%	0.9927	0.997	-3.368	-0.34%
17	15-Dec-92	5	0.9943	0.25%	0.9927	1.002	1.590	0.16%
18	23-Dec-92	3	0.9896	0.25%	0.9928	0.997	-3.192	-0.32%
19	23-Dec-92	4	0.9895	0.25%	0.9928	0.997	-3.292	-0.33%
20	29-Dec-92	1	0.9928	0.25%	0.9929	1.000	-0.055	-0.01%

ROCKY FLATS PLANT - ANALYTICAL LABORATORY

NO DATA REPORTED

WESTINGHOUSE SAVANNAH RIVER SITE

NO DATA REPORTED

RESULTS OF ANALYSIS OF P-EFFECTIVE DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (mW/g)	****	-0.0060	-0.0006	0.0057	0.0015	****	****
Std. Dev. (mW/g)	****	0.0018	0.0071	0.0054	0.0045	****	****
Unc. in Mean (mW/g)	****	0.0011	0.0032	0.0014	0.0004	****	****
Mean Error (%)	****	-0.24%	-0.02%	0.23%	0.06%	****	****
Std. Dev. (%)	****	0.07%	0.29%	0.22%	0.18%	****	****
Unc. in Mean (%)	****	0.05%	0.13%	0.05%	0.02%	****	****
<u>DIFFERENCE FROM LAST PERIOD</u>							
Diff. in Mean Error (mW/g)	****	0.0005	-0.0007	-0.0002	0.0001	****	****
Diff. in Std. Dev. (mW/g)	****	0.0010	0.0000	-0.0003	0.0005	****	****
Diff. in Mean Error (%)	****	0.02%	-0.02%	-0.01%	0.01%	****	****
Diff. in Std. Dev. (%)	****	0.04%	0.00%	-0.01%	0.02%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - P-EFFECTIVE
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - P-EFFECTIVE 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

EG&G MOUND - P-EFFECTIVE
1ST - 4TH QUARTERS 1992

WESTINGHOUSE HANFORD - P-EFFECTIVE 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**P-EFFECTIVE DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	P-eff (mw/g)	Uncert. 1 STD	Accepted P-eff	Ratio M/A	mW/g Error	Percent Error
1	1-Oct-92	1	2.4871	0.08%	2.4929	0.998	-0.0058	-0.23%
2	4-Dec-92	1	2.4910	0.09%	2.4946	0.999	-0.0036	-0.15%
3	11-Dec-92	1	2.4873	0.09%	2.4948	0.997	-0.0075	-0.30%
4	21-Dec-92	1	2.4879	0.10%	2.4951	0.997	-0.0072	-0.29%

LANL

#	Date Measured	Instr. ID	P-eff (mw/g)	Uncert. 1 STD	Accepted P-eff	Ratio M/A	mW/g Error	Percent Error
1	13-Oct-92	F6	2.4954	0.33%	2.4932	1.001	0.0022	0.09%
2	20-Oct-92	F6	2.4965	0.33%	2.4934	1.001	0.0031	0.12%
3	24-Oct-92	F6	2.4952	0.33%	2.4935	1.001	0.0017	0.07%
4	10-Nov-92	F6	2.4857	0.36%	2.4940	0.997	-0.0083	-0.33%
5	18-Nov-92	F6	2.5008	0.32%	2.4942	1.003	0.0066	0.26%
6	25-Nov-92	F6	2.4815	0.34%	2.4944	0.995	-0.0129	-0.52%
7	25-Nov-92	F5	2.4977	0.36%	2.4944	1.001	0.0033	0.13%

EG&G MOUND

#	Date Measured	Instr. ID	P-eff (mw/g)	Uncert. 1 STD	Accepted P-eff	Ratio M/A	mW/g Error	Percent Error
1	1-Oct-92	GENIE2	2.4966	0.19%	2.4915	1.002	0.0051	0.21%
2	1-Oct-92	GENIE2	2.4957	0.18%	2.4915	1.002	0.0042	0.17%
3	2-Oct-92	GENIE2	2.4931	0.19%	2.4915	1.001	0.0016	0.06%
4	2-Oct-92	GENIE2	2.4980	0.18%	2.4915	1.003	0.0065	0.26%
5	2-Oct-92	GENIE2	2.4979	0.18%	2.4915	1.003	0.0064	0.26%
6	14-Oct-92	GENIE2*	2.5139	0.54%	2.4918	1.009	0.0221	0.89%
7	15-Oct-92	GENIE2*	2.5005	0.42%	2.4919	1.003	0.0086	0.35%
8	24-Nov-92	GENIE2	2.4995	0.18%	2.4930	1.003	0.0065	0.26%
9	24-Nov-92	GENIE2	2.4955	0.19%	2.4930	1.001	0.0026	0.10%
10	24-Nov-92	GENIE2	2.4913	0.19%	2.4930	0.999	-0.0016	-0.07%
11	25-Nov-92	GENIE2	2.5018	0.18%	2.4930	1.004	0.0088	0.35%
12	3-Dec-92	GENIE2	2.4985	0.20%	2.4932	1.002	0.0053	0.21%
13	3-Dec-92	GENIE2	2.4903	0.19%	2.4932	0.999	-0.0029	-0.12%
14	4-Dec-92	GENIE2	2.5015	0.19%	2.4932	1.003	0.0083	0.33%
15	4-Dec-92	GENIE2	2.4973	0.19%	2.4932	1.002	0.0040	0.16%
16	4-Dec-92	GENIE2	2.4961	0.19%	2.4932	1.001	0.0029	0.12%
17	21-Dec-92	GENIE2	2.4947	0.22%	2.4937	1.000	0.0010	0.04%
18	21-Dec-92	GENIE2	2.4997	0.20%	2.4937	1.002	0.0060	0.24%
19	22-Dec-92	GENIE2	2.5059	0.20%	2.4937	1.005	0.0122	0.49%

**P-EFFECTIVE DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	P-eff (mw/g)	Uncert. 1 STD	Accepted P-eff	Ratio M/A	mW/g Error	Percent Error
1	5-Oct-92	1985	2.4908	0.12%	2.4922	0.999	-0.0014	-0.06%
2	5-Oct-92	2026	2.4979	0.10%	2.4922	1.002	0.0057	0.23%
3	6-Oct-92	2424	2.4932	0.10%	2.4923	1.000	0.0009	0.04%
4	12-Oct-92	2026	2.4975	0.11%	2.4924	1.002	0.0051	0.20%
5	12-Oct-92	1985	2.4911	0.11%	2.4924	0.999	-0.0013	-0.05%
6	19-Oct-92	2026	2.4960	0.10%	2.4926	1.001	0.0034	0.14%
7	19-Oct-92	2424	2.4917	0.10%	2.4926	1.000	-0.0009	-0.04%
8	20-Oct-92	1985	2.4852	0.12%	2.4926	0.997	-0.0074	-0.30%
9	26-Oct-92	2424	2.4946	0.09%	2.4928	1.001	0.0018	0.07%
10	26-Oct-92	2026	2.4966	0.10%	2.4928	1.002	0.0038	0.15%
11	27-Oct-92	1985	2.4923	0.10%	2.4928	1.000	-0.0005	-0.02%
12	2-Nov-92	1985	2.4924	0.12%	2.4930	1.000	-0.0006	-0.02%
13	2-Nov-92	2026	2.4971	0.11%	2.4930	1.002	0.0041	0.16%
14	3-Nov-92	2424	2.4978	0.10%	2.4930	1.002	0.0048	0.19%
15	9-Nov-92	1985	2.4943	0.12%	2.4932	1.000	0.0011	0.04%
16	11-Nov-92	2424	2.4943	0.10%	2.4932	1.000	0.0011	0.04%
17	11-Nov-92	2026	2.5008	0.11%	2.4932	1.003	0.0076	0.30%
18	16-Nov-92	2424	2.4929	0.11%	2.4934	1.000	-0.0005	-0.02%
19	17-Nov-92	1985	2.4889	0.11%	2.4934	0.998	-0.0045	-0.18%
20	23-Nov-92	1985	2.4922	0.11%	2.4936	0.999	-0.0014	-0.05%
21	23-Nov-92	2026	2.4957	0.11%	2.4936	1.001	0.0021	0.09%
22	24-Nov-92	2424	2.4940	0.10%	2.4936	1.000	0.0004	0.02%
23	30-Nov-92	2026	2.4934	0.11%	2.4938	1.000	-0.0004	-0.01%
24	30-Nov-92	2424	2.5022	0.10%	2.4938	1.003	0.0084	0.34%
25	3-Dec-92	2424	2.4921	0.11%	2.4938	0.999	-0.0017	-0.07%
26	3-Dec-92	1985	2.4884	0.11%	2.4938	0.998	-0.0054	-0.22%
27	4-Dec-92	2026	2.4969	0.10%	2.4939	1.001	0.0030	0.12%
28	8-Dec-92	2424	2.4980	0.11%	2.4940	1.002	0.0040	0.16%
29	8-Dec-92	1985	2.4952	0.11%	2.4940	1.000	0.0012	0.05%
30	9-Dec-92	2026	2.5004	0.10%	2.4940	1.003	0.0064	0.26%
31	14-Dec-92	2424	2.4984	0.10%	2.4941	1.002	0.0043	0.17%
32	14-Dec-92	1985	2.4892	0.11%	2.4941	0.998	-0.0049	-0.20%
33	15-Dec-92	2026	2.5044	0.10%	2.4942	1.004	0.0102	0.41%
34	16-Dec-92	2026	2.5001	0.10%	2.4942	1.002	0.0059	0.24%
35	21-Dec-92	1985	2.4843	0.11%	2.4943	0.996	-0.0100	-0.40%
36	21-Dec-92	2424	2.5023	0.10%	2.4943	1.003	0.0080	0.32%
37	22-Dec-92	2026	2.5000	0.12%	2.4943	1.002	0.0057	0.23%
38	22-Dec-92	2026	2.4977	0.10%	2.4943	1.001	0.0034	0.13%
39	28-Dec-92	1985	2.4893	0.11%	2.4945	0.998	-0.0052	-0.21%
40	28-Dec-92	2424	2.4974	0.10%	2.4945	1.001	0.0029	0.12%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF 238-Pu/239-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (ppm)	****	-1	5	3	2	****	****
Std. Dev. (ppm)	****	1.56	9.70	7.37	5.55	****	****
Unc. in Mean (ppm)	****	1.44	2.62	1.55	0.59	****	****
Mean Error (%)	****	-1.02%	4.86%	3.12%	1.95%	****	****
Std. Dev. (%)	****	1.60%	9.90%	7.52%	5.67%	****	****
Unc. in Mean (%)	****	1.49%	2.59%	1.58%	0.59%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (ppm)	****	1	-2	-2	0	****	****
Diff. in Std. Dev. (ppm)	****	-0.58	3.63	3.27	0.24	****	****
Diff. in Mean Error (%)	****	1.29%	-1.84%	-2.44%	0.21%	****	****
Diff. in Std. Dev. (%)	****	-0.58%	3.72%	3.34%	0.27%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - 238-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - 238-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

*EG&G MOUND - 238-PU/239-PU
1ST - 4TH QUARTERS 1992*

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - 238-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**238-Pu/239-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	238/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	1	98	2.69%	98	1.002	0	0.23%
2	4-Dec-92	1	98	2.92%	98	1.004	0	0.39%
3	11-Dec-92	1	95	2.92%	98	0.971	-3	-2.89%
4	21-Dec-92	1	96	3.32%	98	0.982	-2	-1.80%

LANL

#	Date Measured	Instr. ID	238/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	13-Oct-92	F6	97	6.90%	98	0.993	-1	-0.72%
2	20-Oct-92	F6	103	6.60%	98	1.047	5	4.73%
3	24-Oct-92	F6	113	5.90%	98	1.155	15	15.54%
4	10-Nov-92	F6	90	8.10%	98	0.916	-8	-8.42%
5	18-Nov-92	F6	116	5.70%	98	1.178	17	17.83%
6	25-Nov-92	F6	94	7.20%	98	0.959	-4	-4.08%
7	25-Nov-92	F5	107	7.20%	98	1.091	9	9.11%

EG&G MOUND

#	Date Measured	Instr. ID	238/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	GENIE2	96	5.90%	98	0.982	-2	-1.76%
2	1-Oct-92	GENIE2	93	5.83%	98	0.948	-5	-5.23%
3	2-Oct-92	GENIE2	108	5.63%	98	1.097	9	9.65%
4	2-Oct-92	GENIE2	107	5.61%	98	1.092	9	9.24%
5	2-Oct-92	GENIE2	103	5.22%	98	1.054	5	5.37%
6	14-Oct-92	GENIE2*	87	14.50%	98	0.883	-12	-11.73%
7	15-Oct-92	GENIE2*	98	9.67%	98	1.002	0	0.20%
8	24-Nov-92	GENIE2	104	5.27%	98	1.065	6	6.51%
9	24-Nov-92	GENIE2	95	5.69%	98	0.970	-3	-2.98%
10	24-Nov-92	GENIE2	97	5.66%	98	0.987	-1	-1.34%
11	25-Nov-92	GENIE2	109	5.03%	98	1.114	11	11.41%
12	3-Dec-92	GENIE2	105	6.19%	98	1.075	7	7.45%
13	3-Dec-92	GENIE2	90	6.79%	98	0.922	-8	-7.75%
14	4-Dec-92	GENIE2	108	5.38%	98	1.100	10	10.00%
15	4-Dec-92	GENIE2	104	5.80%	98	1.063	6	6.33%
16	4-Dec-92	GENIE2	96	6.08%	98	0.979	-2	-2.14%
17	21-Dec-92	GENIE2	98	8.01%	98	0.996	0	-0.37%
18	21-Dec-92	GENIE2	107	6.07%	98	1.091	9	9.13%
19	22-Dec-92	GENIE2	115	5.99%	98	1.173	17	17.30%

**238-Pu/239-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	238/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	5-Oct-92	1985	95	4.32%	98	0.970	-3	-2.97%
2	5-Oct-92	2026	106	3.46%	98	1.080	8	7.97%
3	6-Oct-92	2424	99	3.31%	98	1.014	1	1.40%
4	12-Oct-92	2026	104	3.56%	98	1.058	6	5.82%
5	12-Oct-92	1985	99	4.07%	98	1.014	1	1.38%
6	19-Oct-92	2026	102	3.35%	98	1.036	4	3.64%
7	19-Oct-92	2424	94	3.77%	98	0.960	-4	-4.02%
8	20-Oct-92	1985	92	4.50%	98	0.937	-6	-6.26%
9	26-Oct-92	2424	102	3.10%	98	1.036	4	3.63%
10	26-Oct-92	2026	103	3.47%	98	1.048	5	4.77%
11	27-Oct-92	1985	99	3.54%	98	1.014	1	1.43%
12	2-Nov-92	1985	96	4.30%	98	0.981	-2	-1.90%
13	2-Nov-92	2026	102	3.63%	98	1.037	4	3.69%
14	3-Nov-92	2424	101	3.59%	98	1.026	3	2.61%
15	9-Nov-92	1985	92	4.51%	98	0.939	-6	-6.11%
16	11-Nov-92	2424	99	3.38%	98	1.015	1	1.48%
17	11-Nov-92	2026	104	3.88%	98	1.059	6	5.93%
18	16-Nov-92	2424	99	3.75%	98	1.015	1	1.47%
19	17-Nov-92	1985	95	3.98%	98	0.971	-3	-2.91%
20	23-Nov-92	1985	95	3.87%	98	0.972	-3	-2.85%
21	23-Nov-92	2026	103	3.76%	98	1.048	5	4.81%
22	24-Nov-92	2424	102	3.43%	98	1.037	4	3.67%
23	30-Nov-92	2026	98	3.93%	98	1.004	0	0.43%
24	30-Nov-92	2424	106	3.24%	98	1.082	8	8.15%
25	3-Dec-92	2424	96	3.86%	98	0.982	-2	-1.77%
26	3-Dec-92	1985	93	4.10%	98	0.950	-5	-5.05%
27	4-Dec-92	2026	104	3.41%	98	1.059	6	5.92%
28	8-Dec-92	2424	101	3.64%	98	1.027	3	2.69%
29	8-Dec-92	1985	95	3.94%	98	0.972	-3	-2.80%
30	9-Dec-92	2026	110	3.28%	98	1.125	12	12.48%
31	14-Dec-92	2424	107	3.34%	98	1.092	9	9.19%
32	14-Dec-92	1985	90	4.30%	98	0.917	-8	-8.29%
33	15-Dec-92	2026	106	3.24%	98	1.082	8	8.23%
34	16-Dec-92	2026	108	3.28%	98	1.103	10	10.32%
35	21-Dec-92	1985	90	4.14%	98	0.917	-8	-8.34%
36	21-Dec-92	2424	109	3.31%	98	1.114	11	11.45%
37	22-Dec-92	2026	106	3.84%	98	1.082	8	8.17%
38	22-Dec-92	2026	104	3.38%	98	1.060	6	5.96%
39	28-Dec-92	1985	89	4.44%	98	0.907	-9	-9.34%
40	28-Dec-92	2424	102	3.32%	98	1.038	4	3.77%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF 240-Pu/239-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (ppm)	****	-238	30	669	693	****	****
Std. Dev. (ppm)	****	191.57	705.35	1330.14	410.44	****	****
Unc. in Mean (ppm)	****	130.93	431.85	237.25	51.27	****	****
Mean Error (%)	****	-0.38%	0.05%	1.08%	1.12%	****	****
Std. Dev. (%)	****	0.31%	1.13%	2.14%	0.66%	****	****
Unc. in Mean (%)	****	0.21%	0.69%	0.37%	0.08%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (ppm)	****	-18	-102	443	-25	****	****
Diff. in Std. Dev. (ppm)	****	17.50	-460.00	-47.77	48.85	****	****
Diff. in Mean Error (%)	****	-0.03%	-0.16%	0.72%	-0.03%	****	****
Diff. in Std. Dev. (%)	****	0.03%	-0.75%	-0.08%	0.08%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - 240-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - 240-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

EG&G MOUND - 240-PU/239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - 240-PU/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**240-Pu/239-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	240/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	1	61889	0.39%	62150	0.996	-261	-0.42%
2	4-Dec-92	1	62132	0.42%	62149	1.000	-17	-0.03%
3	11-Dec-92	1	61956	0.40%	62149	0.997	-193	-0.31%
4	21-Dec-92	1	61669	0.47%	62149	0.992	-480	-0.77%

LANL

#	Date Measured	Instr. ID	240/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	13-Oct-92	F6	63102	1.75%	62150	1.015	951	1.53%
2	20-Oct-92	F6	62940	1.80%	62150	1.013	790	1.27%
3	24-Oct-92	F6	61819	1.79%	62150	0.995	-331	-0.53%
4	10-Nov-92	F6	61770	1.98%	62150	0.994	-380	-0.61%
5	18-Nov-92	F6	62376	1.75%	62150	1.004	226	0.36%
6	25-Nov-92	F6	61074	1.84%	62150	0.983	-1076	-1.73%
7	25-Nov-92	F5	62178	1.94%	62150	1.000	29	0.05%

EG&G MOUND

#	Date Measured	Instr. ID	240/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	GENIE2	63540	1.23%	62150	1.022	1389	2.24%
2	1-Oct-92	GENIE2	63611	1.16%	62150	1.024	1461	2.35%
3	2-Oct-92	GENIE2	61363	1.24%	62150	0.987	-787	-1.27%
4	2-Oct-92	GENIE2	62404	1.09%	62150	1.004	254	0.41%
5	2-Oct-92	GENIE2	63007	1.15%	62150	1.014	856	1.38%
6	14-Oct-92	GENIE2*	67789	3.80%	62150	1.091	5639	9.07%
7	15-Oct-92	GENIE2*	62635	3.07%	62150	1.008	485	0.78%
8	24-Nov-92	GENIE2	62797	1.18%	62150	1.010	647	1.04%
9	24-Nov-92	GENIE2	62891	1.27%	62150	1.012	742	1.19%
10	24-Nov-92	GENIE2	61665	1.30%	62150	0.992	-484	-0.78%
11	25-Nov-92	GENIE2	62736	1.24%	62150	1.009	587	0.94%
12	3-Dec-92	GENIE2	62477	1.23%	62149	1.005	327	0.53%
13	3-Dec-92	GENIE2	62029	1.21%	62149	0.998	-121	-0.19%
14	4-Dec-92	GENIE2	62682	1.22%	62149	1.009	533	0.86%
15	4-Dec-92	GENIE2	62069	1.25%	62149	0.999	-80	-0.13%
16	4-Dec-92	GENIE2	62990	1.29%	62149	1.014	841	1.35%
17	21-Dec-92	GENIE2	62144	1.29%	62149	1.000	-5	-0.01%
18	21-Dec-92	GENIE2	62162	1.22%	62149	1.000	13	0.02%
19	22-Dec-92	GENIE2	62565	1.25%	62149	1.007	416	0.67%

**240-Pu/239-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	240/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	5-Oct-92	1985	62572	0.57%	62150	1.007	422	0.68%
2	5-Oct-92	2026	62970	0.51%	62150	1.013	820	1.32%
3	6-Oct-92	2424	62722	0.47%	62150	1.009	572	0.92%
4	12-Oct-92	2026	63147	0.51%	62150	1.016	997	1.60%
5	12-Oct-92	1985	62361	0.56%	62150	1.003	211	0.34%
6	19-Oct-92	2026	63020	0.47%	62150	1.014	870	1.40%
7	19-Oct-92	2424	62739	0.51%	62150	1.009	589	0.95%
8	20-Oct-92	1985	62016	0.57%	62150	0.998	-134	-0.22%
9	26-Oct-92	2424	62762	0.45%	62150	1.010	612	0.98%
10	26-Oct-92	2026	63201	0.49%	62150	1.017	1051	1.69%
11	27-Oct-92	1985	62538	0.49%	62150	1.006	388	0.62%
12	2-Nov-92	1985	62841	0.57%	62150	1.011	691	1.11%
13	2-Nov-92	2026	63194	0.51%	62150	1.017	1044	1.68%
14	3-Nov-92	2424	63283	0.51%	62150	1.018	1133	1.82%
15	9-Nov-92	1985	63288	0.57%	62150	1.018	1138	1.83%
16	11-Nov-92	2424	62722	0.48%	62150	1.009	572	0.92%
17	11-Nov-92	2026	63517	0.55%	62150	1.022	1368	2.20%
18	16-Nov-92	2424	62499	0.53%	62150	1.006	349	0.56%
19	17-Nov-92	1985	62245	0.53%	62150	1.002	95	0.15%
20	23-Nov-92	1985	62847	0.51%	62150	1.011	698	1.12%
21	23-Nov-92	2026	62953	0.53%	62150	1.013	803	1.29%
22	24-Nov-92	2424	62482	0.50%	62150	1.005	332	0.53%
23	30-Nov-92	2026	62742	0.54%	62149	1.010	593	0.95%
24	30-Nov-92	2424	63455	0.48%	62149	1.021	1305	2.10%
25	3-Dec-92	2424	62506	0.53%	62149	1.006	357	0.57%
26	3-Dec-92	1985	62453	0.52%	62149	1.005	304	0.49%
27	4-Dec-92	2026	62937	0.49%	62149	1.013	788	1.27%
28	8-Dec-92	2424	63263	0.52%	62149	1.018	1114	1.79%
29	8-Dec-92	1985	63044	0.51%	62149	1.014	895	1.44%
30	9-Dec-92	2026	62898	0.50%	62149	1.012	749	1.21%
31	14-Dec-92	2424	62585	0.51%	62149	1.007	435	0.70%
32	14-Dec-92	1985	62598	0.53%	62149	1.007	449	0.72%
33	15-Dec-92	2026	63942	0.47%	62149	1.029	1792	2.88%
34	16-Dec-92	2026	62897	0.49%	62149	1.012	747	1.20%
35	21-Dec-92	1985	61772	0.52%	62149	0.994	-377	-0.61%
36	21-Dec-92	2424	63157	0.51%	62149	1.016	1008	1.62%
37	22-Dec-92	2026	63171	0.56%	62149	1.016	1021	1.64%
38	22-Dec-92	2026	62857	0.49%	62149	1.011	707	1.14%
39	28-Dec-92	1985	62747	0.54%	62149	1.010	598	0.96%
40	28-Dec-92	2424	62765	0.48%	62149	1.010	616	0.99%

**RFP - ANAL. LAB.
NO DATA REPORTED**

**SAVANNAH RIVER
NO DATA REPORTED**

RESULTS OF ANALYSIS OF 241-Pu/239-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (ppm)	****	-13	5	-16	-6	****	****
Std. Dev. (ppm)	****	2.66	7.13	11.11	9.12	****	****
Unc. in Mean (ppm)	****	3.21	0.88	3.16	1.18	****	****
Mean Error (%)	****	-0.62%	0.25%	-0.80%	-0.31%	****	****
Std. Dev. (%)	****	0.13%	0.35%	0.54%	0.45%	****	****
Unc. in Mean (%)	****	0.16%	0.04%	0.16%	0.06%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (ppm)	****	2	3	-9	1	****	****
Diff. in Std. Dev. (ppm)	****	-3.99	1.68	6.15	1.35	****	****
Diff. in Mean Error (%)	****	0.10%	0.17%	-0.47%	0.02%	****	****
Diff. in Std. Dev. (%)	****	-0.19%	0.09%	0.30%	0.08%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - 241-PU/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - 241-PU/239-PU
1ST - 4TH QUARTERS 1992

EG&G MOUND - 241-PU/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - 241-PU/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**241-Pu/239-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	241/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	1	2050	0.29%	2062	0.994	-11	-0.56%
2	4-Dec-92	1	2035	0.32%	2044	0.995	-10	-0.47%
3	11-Dec-92	1	2027	0.30%	2043	0.992	-15	-0.75%
4	21-Dec-92	1	2026	0.35%	2040	0.993	-14	-0.70%

LANL

#	Date Measured	Instr. ID	241/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	13-Oct-92	F6	2057	0.11%	2059	0.999	-2	-0.08%
2	20-Oct-92	F6	2070	0.10%	2057	1.007	14	0.66%
3	24-Oct-92	F6	2056	0.11%	2056	1.000	0	0.00%
4	10-Nov-92	F6	2067	0.13%	2051	1.008	16	0.78%
5	18-Nov-92	F6	2052	0.11%	2049	1.002	3	0.17%
6	25-Nov-92	F6	2052	0.10%	2047	1.002	5	0.25%
7	25-Nov-92	F5	2046	0.12%	2047	0.999	-1	-0.06%

EG&G MOUND

#	Date Measured	Instr. ID	241/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	GENIE2	2062	0.55%	2062	1.000	0	0.01%
2	1-Oct-92	GENIE2	2052	0.55%	2062	0.995	-9	-0.46%
3	2-Oct-92	GENIE2	2050	0.56%	2062	0.994	-11	-0.55%
4	2-Oct-92	GENIE2	2055	0.54%	2062	0.997	-6	-0.30%
5	2-Oct-92	GENIE2	2048	0.52%	2062	0.993	-14	-0.68%
6	14-Oct-92	GENIE2*	2046	1.01%	2058	0.994	-12	-0.59%
7	15-Oct-92	GENIE2*	2031	0.71%	2058	0.987	-27	-1.33%
8	24-Nov-92	GENIE2	2036	0.62%	2047	0.995	-11	-0.54%
9	24-Nov-92	GENIE2	2039	0.62%	2047	0.996	-8	-0.39%
10	24-Nov-92	GENIE2	2038	0.57%	2047	0.995	-10	-0.47%
11	25-Nov-92	GENIE2	2024	0.59%	2047	0.989	-23	-1.12%
12	3-Dec-92	GENIE2	2020	0.72%	2045	0.988	-24	-1.19%
13	3-Dec-92	GENIE2	2046	0.70%	2045	1.001	2	0.08%
14	4-Dec-92	GENIE2	2027	0.72%	2044	0.991	-18	-0.88%
15	4-Dec-92	GENIE2	2025	0.67%	2044	0.990	-20	-0.95%
16	4-Dec-92	GENIE2	2020	0.70%	2044	0.988	-24	-1.18%
17	21-Dec-92	GENIE2	2012	0.77%	2040	0.987	-27	-1.34%
18	21-Dec-92	GENIE2	1995	0.78%	2040	0.978	-45	-2.18%
19	22-Dec-92	GENIE2	2015	0.78%	2040	0.988	-25	-1.22%

**241-Pu/239-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	241/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	5-Oct-92	1985	2051	0.40%	2061	0.996	-9	-0.45%
2	5-Oct-92	2026	2079	0.36%	2061	1.009	18	0.88%
3	6-Oct-92	2424	2053	0.34%	2060	0.996	-8	-0.37%
4	12-Oct-92	2026	2058	0.36%	2059	1.000	-1	-0.04%
5	12-Oct-92	1985	2041	0.39%	2059	0.991	-18	-0.89%
6	19-Oct-92	2026	2043	0.34%	2057	0.993	-14	-0.68%
7	19-Oct-92	2424	2051	0.36%	2057	0.997	-6	-0.30%
8	20-Oct-92	1985	2048	0.40%	2057	0.996	-8	-0.40%
9	26-Oct-92	2424	2051	0.32%	2055	0.998	-4	-0.20%
10	26-Oct-92	2026	2063	0.35%	2055	1.004	8	0.41%
11	27-Oct-92	1985	2039	0.34%	2055	0.992	-16	-0.78%
12	2-Nov-92	1985	2043	0.40%	2053	0.995	-11	-0.51%
13	2-Nov-92	2026	2043	0.37%	2053	0.995	-10	-0.48%
14	3-Nov-92	2424	2051	0.37%	2053	0.999	-2	-0.10%
15	9-Nov-92	1985	2040	0.40%	2051	0.995	-11	-0.54%
16	11-Nov-92	2424	2045	0.34%	2051	0.997	-5	-0.25%
17	11-Nov-92	2026	2050	0.40%	2051	1.000	0	-0.02%
18	16-Nov-92	2424	2049	0.38%	2049	1.000	0	0.00%
19	17-Nov-92	1985	2047	0.37%	2049	0.999	-2	-0.12%
20	23-Nov-92	1985	2032	0.36%	2047	0.992	-15	-0.76%
21	23-Nov-92	2026	2033	0.38%	2047	0.993	-14	-0.69%
22	24-Nov-92	2424	2029	0.36%	2047	0.991	-18	-0.88%
23	30-Nov-92	2026	2031	0.38%	2046	0.993	-15	-0.73%
24	30-Nov-92	2424	2045	0.35%	2046	1.000	-1	-0.04%
25	3-Dec-92	2424	2029	0.38%	2045	0.992	-16	-0.76%
26	3-Dec-92	1985	2032	0.36%	2045	0.994	-12	-0.61%
27	4-Dec-92	2026	2040	0.35%	2044	0.998	-5	-0.24%
28	8-Dec-92	2424	2035	0.38%	2043	0.996	-8	-0.42%
29	8-Dec-92	1985	2042	0.36%	2043	0.999	-2	-0.07%
30	9-Dec-92	2026	2043	0.36%	2043	1.000	0	-0.02%
31	14-Dec-92	2424	2040	0.36%	2042	0.999	-2	-0.09%
32	14-Dec-92	1985	2027	0.37%	2042	0.993	-15	-0.71%
33	15-Dec-92	2026	2040	0.34%	2041	0.999	-1	-0.05%
34	16-Dec-92	2026	2051	0.35%	2041	1.005	10	0.49%
35	21-Dec-92	1985	2015	0.36%	2040	0.988	-25	-1.22%
36	21-Dec-92	2424	2051	0.37%	2040	1.005	11	0.53%
37	22-Dec-92	2026	2031	0.40%	2040	0.996	-8	-0.40%
38	22-Dec-92	2026	2047	0.35%	2040	1.004	7	0.35%
39	28-Dec-92	1985	2019	0.38%	2038	0.991	-19	-0.93%
40	28-Dec-92	2424	2032	0.34%	2038	0.997	-6	-0.30%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF 241-Am/239-Pu DATA

Fourth Quarter 1992

REPORTING LABORATORY

	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (ppm)	****	-29	-17	9	-19	****	****
Std. Dev. (ppm)	****	5.02	16.36	14.51	7.48	****	****
Unc. in Mean (ppm)	****	3.17	5.37	3.70	1.13	****	****
Mean Error (%)	****	-1.50%	-0.90%	0.48%	-0.99%	****	****
Std. Dev. (%)	****	0.27%	0.85%	0.76%	0.39%	****	****
Unc. in Mean (%)	****	0.17%	0.28%	0.19%	0.06%	****	****
<u>DIFFERENCE FROM LAST PERIOD</u>							
Diff. in Mean Error (ppm)	****	-1	5	-8	1	****	****
Diff. in Std. Dev. (ppm)	****	0.68	-2.55	3.07	-0.71	****	****
Diff. in Mean Error (%)	****	-0.04%	0.27%	-0.43%	0.05%	****	****
Diff. in Std. Dev. (%)	****	0.04%	-0.15%	0.15%	-0.04%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - 241-AM/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - 241-AM/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

*EG&G MOUND - 241-AM/239-PU
1ST - 4TH QUARTERS 1992*

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - 241-AM/239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**241-Am/239-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	Am/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	1	1875	0.31%	1908	0.982	-33	-1.75%
2	4-Dec-92	1	1901	0.34%	1925	0.987	-25	-1.28%
3	11-Dec-92	1	1894	0.32%	1927	0.983	-33	-1.72%
4	21-Dec-92	1	1905	0.37%	1930	0.987	-25	-1.27%

LANL

#	Date Measured	Instr. ID	Am/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	13-Oct-92	F6	1910	0.72%	1912	0.999	-2	-0.09%
2	20-Oct-92	F6	1901	0.73%	1914	0.994	-12	-0.65%
3	24-Oct-92	F6	1880	0.73%	1915	0.982	-34	-1.79%
4	10-Nov-92	F6	1910	0.78%	1919	0.995	-9	-0.49%
5	18-Nov-92	F6	1903	0.71%	1921	0.991	-18	-0.93%
6	25-Nov-92	F6	1879	0.73%	1923	0.977	-44	-2.29%
7	25-Nov-92	F5	1922	0.81%	1923	1.000	-1	-0.05%

EG&G MOUND

#	Date Measured	Instr. ID	Am/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	1-Oct-92	GENIE2	1907	0.60%	1908	0.999	-1	-0.06%
2	1-Oct-92	GENIE2	1912	0.58%	1908	1.002	4	0.20%
3	2-Oct-92	GENIE2	1907	0.57%	1909	0.999	-2	-0.11%
4	2-Oct-92	GENIE2	1913	0.52%	1909	1.002	4	0.21%
5	2-Oct-92	GENIE2	1907	0.56%	1909	0.999	-2	-0.12%
6	14-Oct-92	GENIE2*	1947	2.04%	1912	1.018	35	1.84%
7	15-Oct-92	GENIE2*	1970	1.75%	1912	1.030	58	3.03%
8	24-Nov-92	GENIE2	1924	0.57%	1923	1.001	2	0.08%
9	24-Nov-92	GENIE2	1930	0.62%	1923	1.004	7	0.37%
10	24-Nov-92	GENIE2	1931	0.62%	1923	1.004	9	0.45%
11	25-Nov-92	GENIE2	1925	0.62%	1923	1.001	2	0.10%
12	3-Dec-92	GENIE2	1924	0.59%	1925	0.999	-1	-0.07%
13	3-Dec-92	GENIE2	1938	0.59%	1925	1.007	13	0.69%
14	4-Dec-92	GENIE2	1931	0.61%	1925	1.003	6	0.29%
15	4-Dec-92	GENIE2	1934	0.58%	1925	1.004	8	0.44%
16	4-Dec-92	GENIE2	1927	0.60%	1925	1.001	2	0.10%
17	21-Dec-92	GENIE2	1939	0.60%	1930	1.005	9	0.49%
18	21-Dec-92	GENIE2	1940	0.57%	1930	1.005	10	0.51%
19	22-Dec-92	GENIE2	1942	0.58%	1930	1.006	11	0.59%

**241-Am/239-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	Am/239 (ppm)	Uncert. 1 STD	Accepted PPM	Ratio M/A	PPM Error	Percent Error
1	5-Oct-92	1985	1898	0.42%	1910	0.994	-11	-0.59%
2	5-Oct-92	2026	1895	0.37%	1910	0.992	-15	-0.77%
3	6-Oct-92	2424	1893	0.35%	1910	0.991	-17	-0.86%
4	12-Oct-92	2026	1895	0.37%	1911	0.991	-16	-0.85%
5	12-Oct-92	1985	1888	0.41%	1911	0.988	-23	-1.20%
6	19-Oct-92	2026	1897	0.35%	1913	0.992	-16	-0.85%
7	19-Oct-92	2424	1905	0.37%	1913	0.996	-8	-0.43%
8	20-Oct-92	1985	1885	0.42%	1914	0.985	-29	-1.51%
9	26-Oct-92	2424	1894	0.33%	1915	0.989	-21	-1.08%
10	26-Oct-92	2026	1890	0.36%	1915	0.987	-25	-1.31%
11	27-Oct-92	1985	1893	0.36%	1915	0.988	-22	-1.17%
12	2-Nov-92	1985	1893	0.42%	1917	0.987	-24	-1.27%
13	2-Nov-92	2026	1900	0.37%	1917	0.991	-16	-0.86%
14	3-Nov-92	2424	1908	0.37%	1917	0.995	-9	-0.48%
15	9-Nov-92	1985	1918	0.42%	1919	0.999	-1	-0.06%
16	11-Nov-92	2424	1904	0.35%	1919	0.992	-15	-0.80%
17	11-Nov-92	2026	1911	0.40%	1919	0.995	-9	-0.45%
18	16-Nov-92	2424	1899	0.39%	1921	0.989	-21	-1.11%
19	17-Nov-92	1985	1893	0.38%	1921	0.986	-27	-1.43%
20	23-Nov-92	1985	1900	0.37%	1922	0.988	-23	-1.18%
21	23-Nov-92	2026	1892	0.39%	1922	0.984	-31	-1.61%
22	24-Nov-92	2424	1900	0.36%	1923	0.988	-22	-1.17%
23	30-Nov-92	2026	1900	0.39%	1924	0.987	-25	-1.28%
24	30-Nov-92	2424	1916	0.36%	1924	0.996	-9	-0.44%
25	3-Dec-92	2424	1908	0.38%	1925	0.991	-17	-0.90%
26	3-Dec-92	1985	1892	0.38%	1925	0.983	-33	-1.73%
27	4-Dec-92	2026	1898	0.36%	1925	0.986	-27	-1.43%
28	8-Dec-92	2424	1911	0.38%	1926	0.992	-15	-0.79%
29	8-Dec-92	1985	1920	0.37%	1926	0.997	-6	-0.32%
30	9-Dec-92	2026	1901	0.36%	1927	0.987	-26	-1.33%
31	14-Dec-92	2424	1911	0.37%	1928	0.991	-17	-0.88%
32	14-Dec-92	1985	1909	0.38%	1928	0.990	-19	-0.99%
33	15-Dec-92	2026	1917	0.34%	1928	0.994	-12	-0.60%
34	16-Dec-92	2026	1908	0.36%	1928	0.990	-20	-1.04%
35	21-Dec-92	1985	1897	0.37%	1930	0.983	-33	-1.71%
36	21-Dec-92	2424	1913	0.37%	1930	0.991	-17	-0.86%
37	22-Dec-92	2026	1907	0.41%	1930	0.988	-23	-1.21%
38	22-Dec-92	2026	1908	0.35%	1930	0.989	-22	-1.13%
39	28-Dec-92	1985	1909	0.39%	1932	0.988	-23	-1.16%
40	28-Dec-92	2424	1920	0.35%	1932	0.994	-12	-0.61%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF PERCENT 238-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (weight %)	****	-0.0001%	0.0004%	0.0003%	0.0002%	****	****
Std. Dev. (weight %)	****	0.0001%	0.0009%	0.0007%	0.0005%	****	****
Unc. in Mean (weight %)	****	0.0001%	0.0002%	0.0001%	0.0001%	****	****
Mean Error (%)	****	-0.99%	4.85%	3.09%	1.89%	****	****
Std. Dev. (%)	****	1.59%	9.89%	7.57%	5.64%	****	****
Unc. in Mean (%)	****	1.49%	2.59%	1.58%	0.59%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (wt. %)	****	0.0001%	-0.0002%	-0.0002%	0.0000%	****	****
Diff. in Std. Dev. (wt. %)	****	-0.0001%	0.0003%	0.0003%	0.0000%	****	****
Diff. in Mean Error (%)	****	1.30%	-1.83%	-2.48%	0.21%	****	****
Diff. in Std. Dev. (%)	****	-0.60%	3.74%	3.37%	0.26%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - PERCENT 238-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - PERCENT 238-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

EG&G MOUND - PERCENT 238-Pu 1ST - 4TH QUARTERS 1992

WESTINGHOUSE HANFORD - PERCENT 238-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**WEIGHT PERCENT 238-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	238-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	1	0.0092%	2.69%	0.0092%	1.003	0.0000%	0.26%
2	4-Dec-92	1	0.0092%	2.92%	0.0092%	1.004	0.0000%	0.39%
3	11-Dec-92	1	0.0089%	2.92%	0.0092%	0.971	-0.0003%	-2.87%
4	21-Dec-92	1	0.0090%	3.32%	0.0092%	0.982	-0.0002%	-1.75%

LANL

#	Date Measured	Instr. ID	238-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	13-Oct-92	F6	0.0091%	6.90%	0.0092%	0.992	-0.0001%	-0.81%
2	20-Oct-92	F6	0.0096%	6.60%	0.0092%	1.047	0.0004%	4.66%
3	24-Oct-92	F6	0.0106%	5.90%	0.0092%	1.156	0.0014%	15.57%
4	10-Nov-92	F6	0.0084%	8.10%	0.0092%	0.916	-0.0008%	-8.38%
5	18-Nov-92	F6	0.0108%	5.70%	0.0092%	1.178	0.0016%	17.81%
6	25-Nov-92	F6	0.0088%	7.20%	0.0092%	0.960	-0.0004%	-3.99%
7	25-Nov-92	F5	0.0100%	7.20%	0.0092%	1.091	0.0008%	9.10%

EG&G MOUND

#	Date Measured	Instr. ID	238-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	GENIE2	0.0090%	5.90%	0.0092%	0.981	-0.0002%	-1.86%
2	1-Oct-92	GENIE2	0.0087%	5.83%	0.0092%	0.947	-0.0005%	-5.33%
3	2-Oct-92	GENIE2	0.0101%	5.63%	0.0092%	1.098	0.0009%	9.76%
4	2-Oct-92	GENIE2	0.0100%	5.61%	0.0092%	1.092	0.0008%	9.25%
5	2-Oct-92	GENIE2	0.0097%	5.22%	0.0092%	1.053	0.0005%	5.32%
6	14-Oct-92	GENIE2*	0.0081%	14.50%	0.0092%	0.878	-0.0011%	-12.17%
7	15-Oct-92	GENIE2*	0.0092%	9.67%	0.0092%	1.002	0.0000%	0.19%
8	24-Nov-92	GENIE2	0.0098%	5.27%	0.0092%	1.065	0.0006%	6.48%
9	24-Nov-92	GENIE2	0.0089%	5.69%	0.0092%	0.970	-0.0003%	-3.01%
10	24-Nov-92	GENIE2	0.0090%	5.66%	0.0092%	0.987	-0.0001%	-1.27%
11	25-Nov-92	GENIE2	0.0102%	5.03%	0.0092%	1.114	0.0010%	11.38%
12	3-Dec-92	GENIE2	0.0098%	6.19%	0.0092%	1.075	0.0007%	7.45%
13	3-Dec-92	GENIE2	0.0085%	6.79%	0.0092%	0.923	-0.0007%	-7.72%
14	4-Dec-92	GENIE2	0.0101%	5.38%	0.0092%	1.100	0.0009%	9.98%
15	4-Dec-92	GENIE2	0.0097%	5.80%	0.0092%	1.064	0.0006%	6.37%
16	4-Dec-92	GENIE2	0.0090%	6.08%	0.0092%	0.978	-0.0002%	-2.19%
17	21-Dec-92	GENIE2	0.0091%	8.01%	0.0092%	0.997	0.0000%	-0.34%
18	21-Dec-92	GENIE2	0.0100%	6.07%	0.0092%	1.092	0.0008%	9.16%
19	22-Dec-92	GENIE2	0.0107%	5.99%	0.0092%	1.173	0.0016%	17.28%

**WEIGHT PERCENT 238-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	238-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	5-Oct-92	1985	0.0089%	4.32%	0.0092%	0.970	-0.0003%	-3.00%
2	5-Oct-92	2026	0.0099%	3.46%	0.0092%	1.079	0.0007%	7.89%
3	6-Oct-92	2424	0.0093%	3.31%	0.0092%	1.014	0.0001%	1.36%
4	12-Oct-92	2026	0.0097%	3.56%	0.0092%	1.057	0.0005%	5.73%
5	12-Oct-92	1985	0.0093%	4.07%	0.0092%	1.014	0.0001%	1.37%
6	19-Oct-92	2026	0.0095%	3.35%	0.0092%	1.036	0.0003%	3.57%
7	19-Oct-92	2424	0.0088%	3.77%	0.0092%	0.959	-0.0004%	-4.07%
8	20-Oct-92	1985	0.0086%	4.50%	0.0092%	0.938	-0.0006%	-6.24%
9	26-Oct-92	2424	0.0095%	3.10%	0.0092%	1.036	0.0003%	3.58%
10	26-Oct-92	2026	0.0096%	3.47%	0.0092%	1.047	0.0004%	4.67%
11	27-Oct-92	1985	0.0093%	3.54%	0.0092%	1.014	0.0001%	1.40%
12	2-Nov-92	1985	0.0090%	4.30%	0.0092%	0.981	-0.0002%	-1.86%
13	2-Nov-92	2026	0.0095%	3.63%	0.0092%	1.036	0.0003%	3.60%
14	3-Nov-92	2424	0.0094%	3.59%	0.0092%	1.025	0.0002%	2.51%
15	9-Nov-92	1985	0.0086%	4.51%	0.0092%	0.938	-0.0006%	-6.20%
16	11-Nov-92	2424	0.0093%	3.38%	0.0092%	1.014	0.0001%	1.43%
17	11-Nov-92	2026	0.0097%	3.88%	0.0092%	1.058	0.0005%	5.80%
18	16-Nov-92	2424	0.0093%	3.75%	0.0092%	1.014	0.0001%	1.45%
19	17-Nov-92	1985	0.0089%	3.98%	0.0092%	0.971	-0.0003%	-2.92%
20	23-Nov-92	1985	0.0089%	3.87%	0.0092%	0.971	-0.0003%	-2.90%
21	23-Nov-92	2026	0.0096%	3.76%	0.0092%	1.047	0.0004%	4.73%
22	24-Nov-92	2424	0.0095%	3.43%	0.0092%	1.036	0.0003%	3.64%
23	30-Nov-92	2026	0.0092%	3.93%	0.0092%	1.004	0.0000%	0.38%
24	30-Nov-92	2424	0.0099%	3.24%	0.0092%	1.080	0.0007%	8.02%
25	3-Dec-92	2424	0.0090%	3.86%	0.0092%	0.982	-0.0002%	-1.79%
26	3-Dec-92	1985	0.0087%	4.10%	0.0092%	0.949	-0.0005%	-5.06%
27	4-Dec-92	2026	0.0097%	3.41%	0.0092%	1.058	0.0005%	5.85%
28	8-Dec-92	2424	0.0094%	3.64%	0.0092%	1.026	0.0002%	2.58%
29	8-Dec-92	1985	0.0089%	3.94%	0.0092%	0.971	-0.0003%	-2.87%
30	9-Dec-92	2026	0.0103%	3.28%	0.0092%	1.124	0.0011%	12.41%
31	14-Dec-92	2424	0.0100%	3.34%	0.0092%	1.091	0.0008%	9.15%
32	14-Dec-92	1985	0.0084%	4.30%	0.0092%	0.917	-0.0008%	-8.32%
33	15-Dec-92	2026	0.0099%	3.24%	0.0092%	1.081	0.0007%	8.06%
34	16-Dec-92	2026	0.0101%	3.28%	0.0092%	1.102	0.0009%	10.24%
35	21-Dec-92	1985	0.0084%	4.14%	0.0092%	0.917	-0.0008%	-8.30%
36	21-Dec-92	2424	0.0102%	3.31%	0.0092%	1.113	0.0010%	11.35%
37	22-Dec-92	2026	0.0099%	3.84%	0.0092%	1.081	0.0007%	8.07%
38	22-Dec-92	2026	0.0097%	3.38%	0.0092%	1.059	0.0005%	5.89%
39	28-Dec-92	1985	0.0083%	4.44%	0.0092%	0.906	-0.0009%	-9.38%
40	28-Dec-92	2424	0.0095%	3.32%	0.0092%	1.037	0.0003%	3.72%

**RFP - ANAL. LAB.
NO DATA REPORTED**

**SAVANNAH RIVER
NO DATA REPORTED**

RESULTS OF ANALYSIS OF PERCENT 239-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (weight %)	****	0.0224%	-0.0038%	-0.0306%	-0.0528%	****	****
Std. Dev. (weight %)	****	0.0172%	0.0610%	0.1171%	0.0400%	****	****
Unc. in Mean (weight %)	****	0.0120%	0.0376%	0.0198%	0.0045%	****	****
Mean Error (%)	****	0.02%	0.00%	-0.03%	-0.06%	****	****
Std. Dev. (%)	****	0.02%	0.06%	0.12%	0.04%	****	****
Unc. in Mean (%)	****	0.01%	0.04%	0.02%	0.00%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (wt. %)	****	-0.3926%	-0.3787%	-0.0382%	0.0045%	****	****
Diff. in Std. Dev. (wt. %)	****	0.0016%	-0.0512%	-0.0048%	0.0074%	****	****
Diff. in Mean Error (%)	****	-0.42%	-0.40%	-0.04%	0.00%	****	****
Diff. in Std. Dev. (%)	****	0.00%	-0.06%	-0.01%	0.01%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - PERCENT 239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

*LOS ALAMOS - PERCENT 239-PU
1ST - 4TH QUARTERS 1992*

All standard deviation and uncertainty limits are at two-sigma.

EG&G MOUND - PERCENT 239-PU 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - PERCENT 239-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**WEIGHT PERCENT 239-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	239-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	1	93.9300%	0.02%	93.9058%	1.000	0.0242%	0.03%
2	4-Dec-92	1	93.9098%	0.03%	93.9074%	1.000	0.0024%	0.00%
3	11-Dec-92	1	93.9264%	0.02%	93.9076%	1.000	0.0188%	0.02%
4	21-Dec-92	1	93.9520%	0.03%	93.9078%	1.000	0.0442%	0.05%

LANL

#	Date Measured	Instr. ID	239-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	13-Oct-92	F6	93.8200%	0.10%	93.9061%	0.999	-0.0861%	-0.09%
2	20-Oct-92	F6	93.8400%	0.11%	93.9062%	0.999	-0.0662%	-0.07%
3	24-Oct-92	F6	93.9300%	0.10%	93.9063%	1.000	0.0237%	0.03%
4	10-Nov-92	F6	93.9400%	0.11%	93.9068%	1.000	0.0332%	0.04%
5	18-Nov-92	F6	93.8900%	0.10%	93.9070%	1.000	-0.0170%	-0.02%
6	25-Nov-92	F6	94.0000%	0.11%	93.9072%	1.001	0.0928%	0.10%
7	25-Nov-92	F5	93.9000%	0.11%	93.9072%	1.000	-0.0072%	-0.01%

EG&G MOUND

#	Date Measured	Instr. ID	239-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	GENIE2	93.8103%	0.07%	93.9058%	0.999	-0.0955%	-0.10%
2	1-Oct-92	GENIE2	93.8052%	0.07%	93.9058%	0.999	-0.1006%	-0.11%
3	2-Oct-92	GENIE2	94.0031%	0.07%	93.9058%	1.001	0.0973%	0.10%
4	2-Oct-92	GENIE2	93.9104%	0.06%	93.9058%	1.000	0.0046%	0.00%
5	2-Oct-92	GENIE2	93.8581%	0.06%	93.9058%	0.999	-0.0477%	-0.05%
6	14-Oct-92	GENIE2*	93.4385%	0.23%	93.9061%	0.995	-0.4676%	-0.50%
7	15-Oct-92	GENIE2*	93.8929%	0.17%	93.9061%	1.000	-0.0132%	-0.01%
8	24-Nov-92	GENIE2	93.8776%	0.07%	93.9071%	1.000	-0.0296%	-0.03%
9	24-Nov-92	GENIE2	93.8698%	0.07%	93.9071%	1.000	-0.0374%	-0.04%
10	24-Nov-92	GENIE2	93.9784%	0.07%	93.9071%	1.001	0.0712%	0.08%
11	25-Nov-92	GENIE2	93.8836%	0.07%	93.9072%	1.000	-0.0236%	-0.03%
12	3-Dec-92	GENIE2	93.9073%	0.07%	93.9074%	1.000	-0.0001%	0.00%
13	3-Dec-92	GENIE2	93.9459%	0.07%	93.9074%	1.000	0.0386%	0.04%
14	4-Dec-92	GENIE2	93.8883%	0.07%	93.9074%	1.000	-0.0191%	-0.02%
15	4-Dec-92	GENIE2	93.9431%	0.07%	93.9074%	1.000	0.0357%	0.04%
16	4-Dec-92	GENIE2	93.8626%	0.07%	93.9074%	1.000	-0.0448%	-0.05%
17	21-Dec-92	GENIE2	93.9381%	0.07%	93.9078%	1.000	0.0302%	0.03%
18	21-Dec-92	GENIE2	93.9372%	0.07%	93.9078%	1.000	0.0294%	0.03%
19	22-Dec-92	GENIE2	93.8991%	0.07%	93.9078%	1.000	-0.0087%	-0.01%

**WEIGHT PERCENT 239-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	239-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	5-Oct-92	1985	93.8754%	0.03%	93.9059%	1.000	-0.0305%	-0.03%
2	5-Oct-92	2026	93.8367%	0.03%	93.9059%	0.999	-0.0692%	-0.07%
3	6-Oct-92	2424	93.8616%	0.03%	93.9059%	1.000	-0.0443%	-0.05%
4	12-Oct-92	2026	93.8231%	0.03%	93.9060%	0.999	-0.0829%	-0.09%
5	12-Oct-92	1985	93.8949%	0.03%	93.9060%	1.000	-0.0111%	-0.01%
6	19-Oct-92	2026	93.8360%	0.03%	93.9062%	0.999	-0.0702%	-0.07%
7	19-Oct-92	2424	93.8607%	0.03%	93.9062%	1.000	-0.0455%	-0.05%
8	20-Oct-92	1985	93.9254%	0.03%	93.9062%	1.000	0.0192%	0.02%
9	26-Oct-92	2424	93.8580%	0.03%	93.9064%	0.999	-0.0484%	-0.05%
10	26-Oct-92	2026	93.8178%	0.03%	93.9064%	0.999	-0.0886%	-0.09%
11	27-Oct-92	1985	93.8793%	0.03%	93.9064%	1.000	-0.0271%	-0.03%
12	2-Nov-92	1985	93.9461%	0.03%	93.9066%	1.000	0.0395%	0.04%
13	2-Nov-92	2026	93.8204%	0.03%	93.9066%	0.999	-0.0862%	-0.09%
14	3-Nov-92	2424	93.8118%	0.03%	93.9066%	0.999	-0.0948%	-0.10%
15	9-Nov-92	1985	93.8131%	0.03%	93.9068%	0.999	-0.0937%	-0.10%
16	11-Nov-92	2424	93.8625%	0.03%	93.9068%	1.000	-0.0443%	-0.05%
17	11-Nov-92	2026	93.7908%	0.03%	93.9068%	0.999	-0.1160%	-0.12%
18	16-Nov-92	2424	93.8818%	0.03%	93.9069%	1.000	-0.0251%	-0.03%
19	17-Nov-92	1985	93.9050%	0.03%	93.9070%	1.000	-0.0020%	0.00%
20	23-Nov-92	1985	93.8528%	0.03%	93.9071%	0.999	-0.0543%	-0.06%
21	23-Nov-92	2026	93.8426%	0.03%	93.9071%	0.999	-0.0645%	-0.07%
22	24-Nov-92	2424	93.8849%	0.03%	93.9071%	1.000	-0.0222%	-0.02%
23	30-Nov-92	2026	93.8620%	0.03%	93.9073%	1.000	-0.0453%	-0.05%
24	30-Nov-92	2424	93.7967%	0.03%	93.9073%	0.999	-0.1106%	-0.12%
25	3-Dec-92	2424	93.8833%	0.03%	93.9074%	1.000	-0.0241%	-0.03%
26	3-Dec-92	1985	93.8879%	0.03%	93.9074%	1.000	-0.0195%	-0.02%
27	4-Dec-92	2026	93.8434%	0.03%	93.9074%	0.999	-0.0640%	-0.07%
28	8-Dec-92	2424	93.8150%	0.03%	93.9075%	0.999	-0.0925%	-0.10%
29	8-Dec-92	1985	93.8344%	0.03%	93.9075%	0.999	-0.0731%	-0.08%
30	9-Dec-92	2026	93.8460%	0.03%	93.9075%	0.999	-0.0615%	-0.07%
31	14-Dec-92	2424	93.8743%	0.03%	93.9076%	1.000	-0.0333%	-0.04%
32	14-Dec-92	1985	93.8758%	0.03%	93.9076%	1.000	-0.0318%	-0.03%
33	15-Dec-92	2026	93.7540%	0.03%	93.9077%	0.998	-0.1537%	-0.16%
34	16-Dec-92	2026	93.8455%	0.03%	93.9077%	0.999	-0.0622%	-0.07%
35	21-Dec-92	1985	93.9504%	0.03%	93.9078%	1.000	0.0426%	0.05%
36	21-Dec-92	2424	93.8223%	0.03%	93.9078%	0.999	-0.0855%	-0.09%
37	22-Dec-92	2026	93.8232%	0.03%	93.9078%	0.999	-0.0846%	-0.09%
38	22-Dec-92	2026	93.8498%	0.03%	93.9078%	0.999	-0.0580%	-0.06%
39	28-Dec-92	1985	93.8634%	0.03%	93.9080%	1.000	-0.0446%	-0.05%
40	28-Dec-92	2424	93.8596%	0.03%	93.9080%	0.999	-0.0484%	-0.05%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF PERCENT 240-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (weight %)	****	-0.0210%	0.0026%	0.0610%	0.0620%	****	****
Std. Dev. (weight %)	****	0.0170%	0.0627%	0.1176%	0.0364%	****	****
Unc. in Mean (weight %)	****	0.0116%	0.0383%	0.0224%	0.0045%	****	****
Mean Error (%)	****	-0.36%	0.04%	1.04%	1.06%	****	****
Std. Dev. (%)	****	0.29%	1.07%	2.01%	0.62%	****	****
Unc. in Mean (%)	****	0.20%	0.65%	0.37%	0.08%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (wt. %)	****	-0.0015%	-0.0085%	0.0393%	-0.0021%	****	****
Diff. in Std. Dev. (wt. %)	****	0.0015%	-0.0405%	-0.0047%	0.0044%	****	****
Diff. in Mean Error (%)	****	-0.03%	-0.15%	0.67%	-0.03%	****	****
Diff. in Std. Dev. (%)	****	0.03%	-0.69%	-0.08%	0.07%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - PERCENT 240-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - PERCENT 240-PU 1ST - 4TH QUARTERS 1992

EG&G MOUND - PERCENT 240-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - PERCENT 240-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**WEIGHT PERCENT 240-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	240-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	1	5.8376%	0.37%	5.8607%	0.996	-0.0231%	-0.39%
2	4-Dec-92	1	5.8593%	0.40%	5.8607%	1.000	-0.0014%	-0.02%
3	11-Dec-92	1	5.8437%	0.38%	5.8607%	0.997	-0.0170%	-0.29%
4	21-Dec-92	1	5.8182%	0.44%	5.8607%	0.993	-0.0425%	-0.73%

LANL

#	Date Measured	Instr. ID	240-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	13-Oct-92	F6	5.9450%	1.65%	5.8607%	1.014	0.0843%	1.44%
2	20-Oct-92	F6	5.9310%	1.69%	5.8607%	1.012	0.0703%	1.20%
3	24-Oct-92	F6	5.8310%	1.69%	5.8607%	0.995	-0.0297%	-0.51%
4	10-Nov-92	F6	5.8270%	1.86%	5.8607%	0.994	-0.0337%	-0.58%
5	18-Nov-92	F6	5.8810%	1.65%	5.8607%	1.003	0.0203%	0.35%
6	25-Nov-92	F6	5.7650%	1.73%	5.8607%	0.984	-0.0957%	-1.63%
7	25-Nov-92	F5	5.8630%	1.83%	5.8607%	1.000	0.0023%	0.04%

EG&G MOUND

#	Date Measured	Instr. ID	240-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	GENIE2	5.9857%	1.23%	5.8607%	1.021	0.1249%	2.13%
2	1-Oct-92	GENIE2	5.9920%	1.16%	5.8607%	1.022	0.1313%	2.24%
3	2-Oct-92	GENIE2	5.7925%	1.24%	5.8607%	0.988	-0.0682%	-1.16%
4	2-Oct-92	GENIE2	5.8850%	1.09%	5.8607%	1.004	0.0242%	0.41%
5	2-Oct-92	GENIE2	5.9385%	1.15%	5.8607%	1.013	0.0777%	1.33%
6	14-Oct-92	GENIE2*	6.3606%	3.81%	5.8607%	1.085	0.4999%	8.53%
7	15-Oct-92	GENIE2*	5.9056%	3.08%	5.8607%	1.008	0.0449%	0.77%
8	24-Nov-92	GENIE2	5.9199%	1.18%	5.8607%	1.010	0.0592%	1.01%
9	24-Nov-92	GENIE2	5.9283%	1.27%	5.8607%	1.012	0.0676%	1.15%
10	24-Nov-92	GENIE2	5.8195%	1.30%	5.8607%	0.993	-0.0413%	-0.70%
11	25-Nov-92	GENIE2	5.9146%	1.24%	5.8607%	1.009	0.0539%	0.92%
12	3-Dec-92	GENIE2	5.8916%	1.23%	5.8607%	1.005	0.0308%	0.53%
13	3-Dec-92	GENIE2	5.8518%	1.21%	5.8607%	0.998	-0.0090%	-0.15%
14	4-Dec-92	GENIE2	5.9098%	1.22%	5.8607%	1.008	0.0491%	0.84%
15	4-Dec-92	GENIE2	5.8554%	1.25%	5.8607%	0.999	-0.0054%	-0.09%
16	4-Dec-92	GENIE2	5.9372%	1.29%	5.8607%	1.013	0.0764%	1.30%
17	21-Dec-92	GENIE2	5.8622%	1.29%	5.8607%	1.000	0.0014%	0.02%
18	21-Dec-92	GENIE2	5.8638%	1.22%	5.8607%	1.001	0.0030%	0.05%
19	22-Dec-92	GENIE2	5.8994%	1.25%	5.8607%	1.007	0.0386%	0.66%

**WEIGHT PERCENT 240-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	240-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	5-Oct-92	1985	5.8986%	0.54%	5.8607%	1.006	0.0379%	0.65%
2	5-Oct-92	2026	5.9337%	0.48%	5.8607%	1.012	0.0730%	1.25%
3	6-Oct-92	2424	5.9119%	0.44%	5.8607%	1.009	0.0512%	0.87%
4	12-Oct-92	2026	5.9495%	0.48%	5.8607%	1.015	0.0888%	1.51%
5	12-Oct-92	1985	5.8799%	0.53%	5.8607%	1.003	0.0192%	0.33%
6	19-Oct-92	2026	5.9383%	0.44%	5.8607%	1.013	0.0776%	1.32%
7	19-Oct-92	2424	5.9134%	0.48%	5.8607%	1.009	0.0527%	0.90%
8	20-Oct-92	1985	5.8493%	0.54%	5.8607%	0.998	-0.0114%	-0.19%
9	26-Oct-92	2424	5.9154%	0.42%	5.8607%	1.009	0.0547%	0.93%
10	26-Oct-92	2026	5.9542%	0.46%	5.8607%	1.016	0.0935%	1.59%
11	27-Oct-92	1985	5.8956%	0.46%	5.8607%	1.006	0.0349%	0.60%
12	2-Nov-92	1985	5.9284%	0.54%	5.8607%	1.012	0.0677%	1.15%
13	2-Nov-92	2026	5.9537%	0.48%	5.8607%	1.016	0.0930%	1.59%
14	3-Nov-92	2424	5.9616%	0.48%	5.8607%	1.017	0.1009%	1.72%
15	9-Nov-92	1985	5.9621%	0.54%	5.8607%	1.017	0.1014%	1.73%
16	11-Nov-92	2424	5.9119%	0.45%	5.8607%	1.009	0.0512%	0.87%
17	11-Nov-92	2026	5.9823%	0.52%	5.8607%	1.021	0.1216%	2.07%
18	16-Nov-92	2424	5.8921%	0.50%	5.8607%	1.005	0.0314%	0.54%
19	17-Nov-92	1985	5.8696%	0.50%	5.8607%	1.002	0.0089%	0.15%
20	23-Nov-92	1985	5.9231%	0.48%	5.8607%	1.011	0.0624%	1.06%
21	23-Nov-92	2026	5.9324%	0.50%	5.8607%	1.012	0.0717%	1.22%
22	24-Nov-92	2424	5.8907%	0.47%	5.8607%	1.005	0.0300%	0.51%
23	30-Nov-92	2026	5.9138%	0.51%	5.8607%	1.009	0.0531%	0.91%
24	30-Nov-92	2424	5.9768%	0.45%	5.8607%	1.020	0.1161%	1.98%
25	3-Dec-92	2424	5.8929%	0.50%	5.8607%	1.005	0.0322%	0.55%
26	3-Dec-92	1985	5.8882%	0.49%	5.8607%	1.005	0.0275%	0.47%
27	4-Dec-92	2026	5.9310%	0.46%	5.8607%	1.012	0.0703%	1.20%
28	8-Dec-92	2424	5.9599%	0.49%	5.8607%	1.017	0.0992%	1.69%
29	8-Dec-92	1985	5.9405%	0.48%	5.8607%	1.014	0.0798%	1.36%
30	9-Dec-92	2026	5.9275%	0.47%	5.8607%	1.011	0.0668%	1.14%
31	14-Dec-92	2424	5.8997%	0.48%	5.8607%	1.007	0.0390%	0.66%
32	14-Dec-92	1985	5.9011%	0.50%	5.8607%	1.007	0.0404%	0.69%
33	15-Dec-92	2026	6.0199%	0.44%	5.8607%	1.027	0.1592%	2.72%
34	16-Dec-92	2026	5.9273%	0.46%	5.8607%	1.011	0.0666%	1.14%
35	21-Dec-92	1985	5.8278%	0.49%	5.8607%	0.994	-0.0329%	-0.56%
36	21-Dec-92	2424	5.9504%	0.48%	5.8607%	1.015	0.0897%	1.53%
37	22-Dec-92	2026	5.9517%	0.53%	5.8607%	1.016	0.0910%	1.55%
38	22-Dec-92	2026	5.9238%	0.46%	5.8607%	1.011	0.0631%	1.08%
39	28-Dec-92	1985	5.9143%	0.51%	5.8607%	1.009	0.0536%	0.91%
40	28-Dec-92	2424	5.9158%	0.45%	5.8607%	1.009	0.0551%	0.94%

**RFP - ANAL. LAB.
NO DATA REPORTED**

**SAVANNAH RIVER
NO DATA REPORTED**

RESULTS OF ANALYSIS OF PERCENT 241-Pu DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (weight %)	****	-0.0012%	0.0005%	-0.0016%	-0.0007%	****	****
Std. Dev. (weight %)	****	0.0002%	0.0007%	0.0010%	0.0008%	****	****
Unc. in Mean (weight %)	****	0.0003%	0.0001%	0.0003%	0.0001%	****	****
Mean Error (%)	****	-0.60%	0.24%	-0.84%	-0.37%	****	****
Std. Dev. (%)	****	0.12%	0.36%	0.54%	0.43%	****	****
Unc. in Mean (%)	****	0.16%	0.06%	0.16%	0.06%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (wt. %)	****	0.0002%	0.0004%	-0.0010%	0.0001%	****	****
Diff. in Std. Dev. (wt. %)	****	-0.0004%	0.0001%	0.0004%	0.0001%	****	****
Diff. in Mean Error (%)	****	0.10%	0.18%	-0.52%	0.02%	****	****
Diff. in Std. Dev. (%)	****	-0.19%	0.05%	0.25%	0.07%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - PERCENT 241-PU 1ST - 4TH QUARTERS 1992

LOS ALAMOS - PERCENT 241-PU
1ST - 4TH QUARTERS 1992

EG&G MOUND - PERCENT 241-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - PERCENT 241-PU
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**WEIGHT PERCENT 241-Pu DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	241-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	1	0.1942%	0.29%	0.1952%	0.995	-0.0010%	-0.53%
2	4-Dec-92	1	0.1927%	0.32%	0.1936%	0.995	-0.0009%	-0.46%
3	11-Dec-92	1	0.1920%	0.30%	0.1934%	0.993	-0.0014%	-0.73%
4	21-Dec-92	1	0.1919%	0.35%	0.1932%	0.993	-0.0013%	-0.65%

LANL

#	Date Measured	Instr. ID	241-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	13-Oct-92	F6	0.1946%	0.15%	0.1949%	0.998	-0.0003%	-0.17%
2	20-Oct-92	F6	0.1959%	0.15%	0.1947%	1.006	0.0012%	0.59%
3	24-Oct-92	F6	0.1947%	0.15%	0.1946%	1.000	0.0001%	0.03%
4	10-Nov-92	F6	0.1958%	0.17%	0.1942%	1.008	0.0016%	0.82%
5	18-Nov-92	F6	0.1943%	0.15%	0.1940%	1.002	0.0003%	0.15%
6	25-Nov-92	F6	0.1945%	0.15%	0.1938%	1.003	0.0007%	0.35%
7	25-Nov-92	F5	0.1937%	0.16%	0.1938%	0.999	-0.0001%	-0.07%

EG&G MOUND

#	Date Measured	Instr. ID	241-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	GENIE2	0.1950%	0.55%	0.1952%	0.999	-0.0002%	-0.10%
2	1-Oct-92	GENIE2	0.1941%	0.55%	0.1952%	0.994	-0.0011%	-0.56%
3	2-Oct-92	GENIE2	0.1943%	0.56%	0.1952%	0.995	-0.0009%	-0.45%
4	2-Oct-92	GENIE2	0.1946%	0.54%	0.1952%	0.997	-0.0006%	-0.30%
5	2-Oct-92	GENIE2	0.1938%	0.52%	0.1952%	0.993	-0.0014%	-0.73%
6	14-Oct-92	GENIE2*	0.1928%	1.04%	0.1949%	0.989	-0.0021%	-1.09%
7	15-Oct-92	GENIE2*	0.1923%	0.73%	0.1949%	0.987	-0.0026%	-1.34%
8	24-Nov-92	GENIE2	0.1927%	0.62%	0.1939%	0.994	-0.0011%	-0.57%
9	24-Nov-92	GENIE2	0.1930%	0.62%	0.1939%	0.996	-0.0008%	-0.43%
10	24-Nov-92	GENIE2	0.1931%	0.57%	0.1939%	0.996	-0.0008%	-0.39%
11	25-Nov-92	GENIE2	0.1916%	0.59%	0.1938%	0.989	-0.0022%	-1.14%
12	3-Dec-92	GENIE2	0.1913%	0.72%	0.1936%	0.988	-0.0023%	-1.19%
13	3-Dec-92	GENIE2	0.1939%	0.70%	0.1936%	1.001	0.0002%	0.12%
14	4-Dec-92	GENIE2	0.1919%	0.72%	0.1936%	0.991	-0.0017%	-0.90%
15	4-Dec-92	GENIE2	0.1918%	0.67%	0.1936%	0.991	-0.0018%	-0.92%
16	4-Dec-92	GENIE2	0.1912%	0.70%	0.1936%	0.988	-0.0024%	-1.23%
17	21-Dec-92	GENIE2	0.1906%	0.77%	0.1932%	0.987	-0.0025%	-1.31%
18	21-Dec-92	GENIE2	0.1890%	0.78%	0.1932%	0.978	-0.0042%	-2.15%
19	22-Dec-92	GENIE2	0.1908%	0.78%	0.1931%	0.988	-0.0024%	-1.23%

**WEIGHT PERCENT 241-Pu DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	241-Pu	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	5-Oct-92	1985	0.1942%	0.40%	0.1951%	0.995	-0.0009%	-0.48%
2	5-Oct-92	2026	0.1967%	0.36%	0.1951%	1.008	0.0016%	0.80%
3	6-Oct-92	2424	0.1943%	0.34%	0.1951%	0.996	-0.0008%	-0.41%
4	12-Oct-92	2026	0.1947%	0.36%	0.1950%	0.999	-0.0003%	-0.13%
5	12-Oct-92	1985	0.1932%	0.39%	0.1950%	0.991	-0.0018%	-0.90%
6	19-Oct-92	2026	0.1933%	0.34%	0.1948%	0.992	-0.0015%	-0.76%
7	19-Oct-92	2424	0.1941%	0.36%	0.1948%	0.997	-0.0007%	-0.35%
8	20-Oct-92	1985	0.1940%	0.40%	0.1947%	0.996	-0.0007%	-0.38%
9	26-Oct-92	2424	0.1941%	0.32%	0.1946%	0.997	-0.0005%	-0.25%
10	26-Oct-92	2026	0.1952%	0.35%	0.1946%	1.003	0.0006%	0.31%
11	27-Oct-92	1985	0.1930%	0.34%	0.1946%	0.992	-0.0016%	-0.81%
12	2-Nov-92	1985	0.1935%	0.40%	0.1944%	0.995	-0.0009%	-0.47%
13	2-Nov-92	2026	0.1933%	0.37%	0.1944%	0.994	-0.0011%	-0.57%
14	3-Nov-92	2424	0.1940%	0.37%	0.1944%	0.998	-0.0004%	-0.20%
15	9-Nov-92	1985	0.1930%	0.40%	0.1942%	0.994	-0.0012%	-0.64%
16	11-Nov-92	2424	0.1936%	0.34%	0.1942%	0.997	-0.0006%	-0.30%
17	11-Nov-92	2026	0.1939%	0.40%	0.1942%	0.999	-0.0003%	-0.15%
18	16-Nov-92	2424	0.1940%	0.38%	0.1941%	1.000	-0.0001%	-0.03%
19	17-Nov-92	1985	0.1938%	0.37%	0.1940%	0.999	-0.0002%	-0.12%
20	23-Nov-92	1985	0.1923%	0.36%	0.1939%	0.992	-0.0016%	-0.81%
21	23-Nov-92	2026	0.1924%	0.38%	0.1939%	0.992	-0.0015%	-0.76%
22	24-Nov-92	2424	0.1921%	0.36%	0.1939%	0.991	-0.0018%	-0.90%
23	30-Nov-92	2026	0.1922%	0.38%	0.1937%	0.992	-0.0015%	-0.77%
24	30-Nov-92	2424	0.1934%	0.35%	0.1937%	0.998	-0.0003%	-0.15%
25	3-Dec-92	2424	0.1921%	0.38%	0.1936%	0.992	-0.0015%	-0.79%
26	3-Dec-92	1985	0.1924%	0.36%	0.1936%	0.994	-0.0012%	-0.63%
27	4-Dec-92	2026	0.1930%	0.35%	0.1936%	0.997	-0.0006%	-0.31%
28	8-Dec-92	2424	0.1925%	0.38%	0.1935%	0.995	-0.0010%	-0.51%
29	8-Dec-92	1985	0.1932%	0.36%	0.1935%	0.998	-0.0003%	-0.15%
30	9-Dec-92	2026	0.1933%	0.36%	0.1935%	0.999	-0.0002%	-0.09%
31	14-Dec-92	2424	0.1931%	0.36%	0.1933%	0.999	-0.0002%	-0.12%
32	14-Dec-92	1985	0.1919%	0.37%	0.1933%	0.993	-0.0014%	-0.75%
33	15-Dec-92	2026	0.1929%	0.34%	0.1933%	0.998	-0.0004%	-0.21%
34	16-Dec-92	2026	0.1941%	0.35%	0.1933%	1.004	0.0008%	0.42%
35	21-Dec-92	1985	0.1909%	0.36%	0.1932%	0.988	-0.0023%	-1.17%
36	21-Dec-92	2424	0.1940%	0.37%	0.1932%	1.004	0.0008%	0.43%
37	22-Dec-92	2026	0.1922%	0.40%	0.1931%	0.995	-0.0009%	-0.49%
38	22-Dec-92	2026	0.1937%	0.35%	0.1931%	1.003	0.0006%	0.29%
39	28-Dec-92	1985	0.1911%	0.38%	0.1930%	0.990	-0.0019%	-0.98%
40	28-Dec-92	2424	0.1923%	0.34%	0.1930%	0.996	-0.0007%	-0.35%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

RESULTS OF ANALYSIS OF PERCENT 241-Am DATA

Fourth Quarter 1992

	REPORTING LABORATORY						
	CSL	LLNL	LANL	MOUND	WHO	RFP	SRS
Mean Error (weight %)	****	-0.0027%	-0.0016%	0.0008%	-0.0019%	****	****
Std. Dev. (weight %)	****	0.0005%	0.0015%	0.0013%	0.0007%	****	****
Unc. in Mean (weight %)	****	0.0003%	0.0005%	0.0004%	0.0001%	****	****
Mean Error (%)	****	-1.48%	-0.90%	0.44%	-1.04%	****	****
Std. Dev. (%)	****	0.27%	0.81%	0.72%	0.37%	****	****
Unc. in Mean (%)	****	0.17%	0.29%	0.19%	0.06%	****	****
DIFFERENCE FROM LAST PERIOD							
Diff. in Mean Error (wt. %)	****	-0.0001%	0.0005%	-0.0008%	0.0001%	****	****
Diff. in Std. Dev. (wt. %)	****	0.0001%	-0.0003%	0.0001%	-0.0001%	****	****
Diff. in Mean Error (%)	****	-0.04%	0.29%	-0.48%	0.06%	****	****
Diff. in Std. Dev. (%)	****	0.04%	-0.21%	0.06%	-0.05%	****	****
Number of Data Points	0	4	7	19	40	0	0

LAWRENCE LIVERMORE - PERCENT 241-AM
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

LOS ALAMOS - PERCENT 241-AM 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

EG&G MOUND - PERCENT 241-AM
1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

WESTINGHOUSE HANFORD - PERCENT 241-AM 1ST - 4TH QUARTERS 1992

All standard deviation and uncertainty limits are at two-sigma.

**WEIGHT PERCENT 241-Am DATA
4TH QUARTER 1992**

RFP - CSL

NO DATA REPORTED

LLNL

#	Date Measured	Instr. ID	241-Am	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	1	0.1776%	0.31%	0.1807%	0.983	-0.0031%	-1.73%
2	4-Dec-92	1	0.1800%	0.34%	0.1823%	0.987	-0.0023%	-1.27%
3	11-Dec-92	1	0.1794%	0.32%	0.1825%	0.983	-0.0031%	-1.70%
4	21-Dec-92	1	0.1805%	0.37%	0.1827%	0.988	-0.0022%	-1.23%

LANL

#	Date Measured	Instr. ID	241-Am	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	13-Oct-92	F6	0.1807%	0.73%	0.1810%	0.998	-0.0003%	-0.18%
2	20-Oct-92	F6	0.1799%	0.74%	0.1812%	0.993	-0.0013%	-0.72%
3	24-Oct-92	F6	0.1781%	0.74%	0.1813%	0.982	-0.0032%	-1.76%
4	10-Nov-92	F6	0.1809%	0.79%	0.1817%	0.995	-0.0008%	-0.45%
5	18-Nov-92	F6	0.1802%	0.72%	0.1819%	0.991	-0.0017%	-0.95%
6	25-Nov-92	F6	0.1781%	0.74%	0.1821%	0.978	-0.0040%	-2.19%
7	25-Nov-92	F5	0.1820%	0.82%	0.1821%	0.999	-0.0001%	-0.05%

EG&G MOUND

#	Date Measured	Instr. ID	241-Am	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	1-Oct-92	GENIE2	0.1804%	0.60%	0.1807%	0.998	-0.0003%	-0.16%
2	1-Oct-92	GENIE2	0.1809%	0.58%	0.1807%	1.001	0.0002%	0.09%
3	2-Oct-92	GENIE2	0.1807%	0.57%	0.1807%	1.000	0.0000%	0.00%
4	2-Oct-92	GENIE2	0.1811%	0.52%	0.1807%	1.002	0.0004%	0.21%
5	2-Oct-92	GENIE2	0.1804%	0.56%	0.1807%	0.998	-0.0003%	-0.17%
6	14-Oct-92	GENIE2*	0.1835%	2.05%	0.1810%	1.013	0.0024%	1.33%
7	15-Oct-92	GENIE2*	0.1865%	1.76%	0.1811%	1.030	0.0055%	3.02%
8	24-Nov-92	GENIE2	0.1822%	0.57%	0.1821%	1.001	0.0001%	0.05%
9	24-Nov-92	GENIE2	0.1827%	0.62%	0.1821%	1.003	0.0006%	0.33%
10	24-Nov-92	GENIE2	0.1830%	0.62%	0.1821%	1.005	0.0010%	0.52%
11	25-Nov-92	GENIE2	0.1822%	0.62%	0.1821%	1.001	0.0001%	0.08%
12	3-Dec-92	GENIE2	0.1822%	0.59%	0.1823%	0.999	-0.0001%	-0.07%
13	3-Dec-92	GENIE2	0.1836%	0.59%	0.1823%	1.007	0.0013%	0.73%
14	4-Dec-92	GENIE2	0.1828%	0.61%	0.1823%	1.003	0.0005%	0.27%
15	4-Dec-92	GENIE2	0.1832%	0.58%	0.1823%	1.005	0.0009%	0.48%
16	4-Dec-92	GENIE2	0.1824%	0.60%	0.1823%	1.000	0.0001%	0.05%
17	21-Dec-92	GENIE2	0.1837%	0.60%	0.1827%	1.005	0.0009%	0.52%
18	21-Dec-92	GENIE2	0.1837%	0.57%	0.1827%	1.005	0.0010%	0.54%
19	22-Dec-92	GENIE2	0.1838%	0.58%	0.1828%	1.006	0.0011%	0.58%

**WEIGHT PERCENT 241-Am DATA
4TH QUARTER 1992**

HANFORD

#	Date Measured	Instr. ID	241-Am	Uncert. 1 STD	Accepted Weight %	Ratio M/A	Weight % Error	Percent Error
1	5-Oct-92	1985	0.1797%	0.42%	0.1808%	0.994	-0.0011%	-0.62%
2	5-Oct-92	2026	0.1793%	0.37%	0.1808%	0.992	-0.0015%	-0.84%
3	6-Oct-92	2424	0.1792%	0.35%	0.1808%	0.991	-0.0016%	-0.91%
4	12-Oct-92	2026	0.1793%	0.37%	0.1810%	0.991	-0.0017%	-0.94%
5	12-Oct-92	1985	0.1788%	0.41%	0.1810%	0.988	-0.0022%	-1.21%
6	19-Oct-92	2026	0.1795%	0.35%	0.1812%	0.991	-0.0017%	-0.92%
7	19-Oct-92	2424	0.1803%	0.37%	0.1812%	0.995	-0.0009%	-0.48%
8	20-Oct-92	1985	0.1785%	0.42%	0.1812%	0.985	-0.0027%	-1.49%
9	26-Oct-92	2424	0.1793%	0.33%	0.1813%	0.989	-0.0020%	-1.13%
10	26-Oct-92	2026	0.1788%	0.36%	0.1813%	0.986	-0.0025%	-1.40%
11	27-Oct-92	1985	0.1792%	0.36%	0.1814%	0.988	-0.0022%	-1.20%
12	2-Nov-92	1985	0.1793%	0.42%	0.1815%	0.988	-0.0022%	-1.22%
13	2-Nov-92	2026	0.1798%	0.37%	0.1815%	0.991	-0.0017%	-0.95%
14	3-Nov-92	2424	0.1805%	0.37%	0.1815%	0.994	-0.0010%	-0.58%
15	9-Nov-92	1985	0.1814%	0.42%	0.1817%	0.998	-0.0003%	-0.16%
16	11-Nov-92	2424	0.1802%	0.35%	0.1817%	0.991	-0.0015%	-0.85%
17	11-Nov-92	2026	0.1807%	0.40%	0.1817%	0.994	-0.0010%	-0.58%
18	16-Nov-92	2424	0.1798%	0.39%	0.1819%	0.989	-0.0021%	-1.14%
19	17-Nov-92	1985	0.1793%	0.38%	0.1819%	0.986	-0.0026%	-1.43%
20	23-Nov-92	1985	0.1798%	0.37%	0.1820%	0.988	-0.0022%	-1.23%
21	23-Nov-92	2026	0.1790%	0.39%	0.1820%	0.983	-0.0030%	-1.67%
22	24-Nov-92	2424	0.1799%	0.36%	0.1821%	0.988	-0.0022%	-1.19%
23	30-Nov-92	2026	0.1798%	0.39%	0.1822%	0.987	-0.0024%	-1.33%
24	30-Nov-92	2424	0.1812%	0.36%	0.1822%	0.994	-0.0010%	-0.56%
25	3-Dec-92	2424	0.1806%	0.38%	0.1823%	0.991	-0.0017%	-0.93%
26	3-Dec-92	1985	0.1791%	0.38%	0.1823%	0.982	-0.0032%	-1.75%
27	4-Dec-92	2026	0.1796%	0.36%	0.1823%	0.985	-0.0027%	-1.49%
28	8-Dec-92	2424	0.1808%	0.38%	0.1824%	0.991	-0.0016%	-0.89%
29	8-Dec-92	1985	0.1817%	0.37%	0.1824%	0.996	-0.0007%	-0.39%
30	9-Dec-92	2026	0.1799%	0.36%	0.1824%	0.986	-0.0025%	-1.39%
31	14-Dec-92	2424	0.1809%	0.37%	0.1826%	0.991	-0.0017%	-0.91%
32	14-Dec-92	1985	0.1807%	0.38%	0.1826%	0.990	-0.0019%	-1.02%
33	15-Dec-92	2026	0.1812%	0.34%	0.1826%	0.992	-0.0014%	-0.76%
34	16-Dec-92	2026	0.1806%	0.36%	0.1826%	0.989	-0.0020%	-1.11%
35	21-Dec-92	1985	0.1797%	0.37%	0.1827%	0.983	-0.0030%	-1.67%
36	21-Dec-92	2424	0.1810%	0.37%	0.1827%	0.990	-0.0017%	-0.95%
37	22-Dec-92	2026	0.1804%	0.41%	0.1828%	0.987	-0.0024%	-1.30%
38	22-Dec-92	2026	0.1806%	0.35%	0.1828%	0.988	-0.0022%	-1.19%
39	28-Dec-92	1985	0.1807%	0.39%	0.1829%	0.988	-0.0022%	-1.21%
40	28-Dec-92	2424	0.1817%	0.35%	0.1829%	0.993	-0.0012%	-0.67%

RFP - ANAL. LAB.
NO DATA REPORTED

SAVANNAH RIVER
NO DATA REPORTED

CALORIMETRY EXCHANGE SAMPLE ON 01/01/89

Isotope	PPM Isotope / 239-Pu	% Isotope / Pu	% Uncertainty *
238-Pu	101	0.00944	0.6
239-Pu	1,000,000	93.8676	0.003
240-Pu	62,168	5.8600	0.06
241-Pu	2471	0.2338	0.57
242-Pu	306	0.0291	5.0
241-Am	1509	0.1429	0.4

Power = 0.9759 Watts +/- 0.07%

P-effective = 2.450 mW/g +/- 0.05%

* Uncertainties shown for Pu isotopes are one standard deviation, as found using the data reported by four labs which made the reference measurements on the sample in 1982.

CONSTANTS

Isotope	Decay Constant (day)**	Specific Power (W/g)
238-Pu	2.1630E-05	0.56757
239-Pu	7.8684E-08	1.9288E-03
240-Pu	2.8912E-07	7.0824E-03
241-Pu	1.3227E-04	3.4120E-03
242-Pu	5.0432E-09	1.1590E-04
241-Am	4.3768E-06	0.11420

** Reference: ANSI 15.22-1987 (Plutonium Bearing Solids - Calibration Techniques for Calorimetric Assay), page 22 (Table 4)

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