



201 Varick St 5th Floor
New York, NY 10014
Fax: 212 620 3600

Laboratory Report	No. NRC-J5402-02
Organization Requesting Data U. S. Nuclear Regulatory Commission	Date 06/10/02
Project Title Radiological Evaluation Assistance	
Contact person from Organization Requesting Data Laurie Peluso, NRC Region I	
Contract Number/Job Code J5402	

SAMPLES FOR ANALYSIS
4 - Well Water Samples MW-102S (3-20-02) MW-110-D (3-25-02) MW-207 (3-28-02) MW-109S (4-01-02)
SAMPLE INFORMATION
NRC Shipped (1) sample(s) to EML 05/02/02 - Received 05/03/02 NRC Shipped (3) sample(s) to EML 05/07/02 - Received 05/08/02
ANAYLSIS REQUESTED
Water analysis for the following radionuclides: Sr-90 with an LLD of 0.5 pCi/L H-3 with an LLD of 210 pCi/L Am-241 (alpha spec) with an LLD of 1 pCi/L Pu-238 with an LLD of 1 pCi/L Pu-239 with an LLD of 1 pCi/L Pu-240 with an LLD of 1 pCi/L Pu-241 with an LLD of 15 pCi/L Cm-243 with an LLD of 1 pCi/L Cm-244 with an LLD of 1 pCi/L NRC requested that the samples be retained for possible re-analysis

A-255

DATA RESULTS

Concentration Values (pCi/L) ^a							
Sample ID	Sr-90 ^c	H-3 ^d	Am-241 ^e	Pu-238 ^f	Pu-239/240 ^g	Pu-241 ^h	Cm-243/244 ⁱ
MW-102S	0.21(10.0) ^b	7210(6.0)	<0.2	<0.2	<0.2	<2	<0.2
MW-110D	0.05(60.0)	17400(6.0)	<0.2	<0.2	<0.2	<2	<0.2
MW-207	0.27(10.0)	<210	<0.2	<0.2	<0.2	<2	<0.2
MW-109S	0.73(10.0)	<210	<0.2	<0.2	<0.2	<2	<0.2

Notes:

^a While it is EML's policy to use and report SI units, it is recognized that some traditional units are preferred. The results of this analysis will use the traditional unit of the Curie for reporting activity.

^b When expressing the uncertainty, EML follows the recommendations of the Bureau International des Poids et Mesures (BIPM) and of the International Organization for the Standardization (ISO) as articulated in the "Guide to the Expression of Uncertainty in Measurement." Therefore, the uncertainty associated with these measurements is the combined standard uncertainty expressed as percent.

^c The water was analyzed for Sr-90 following EML procedure RC-10

^d The water was analyzed for H-3 following EML procedure RC-12

^e The water was analyzed for Am-241 following EML procedure RC-17

^f The water was analyzed for Pu-238 following EML procedure RC-17

^g The water was analyzed for Pu-239/240 following EML procedure RC-17

^h The water was analyzed for Pu-241 following EML procedure RC-17 with additional beta counting

ⁱ The water was analyzed for Cm-243/244 following EML procedure RC-17



Raymond J. Bath, Ph. D.
Director, Quality Assurance and Metrology Division



Peter Shebell
Physicist, Environmental Sciences Division