

**ORISE TABLE 1**

**GROSS ALPHA AND BETA ACTIVITIES  
IN A WATER SAMPLE  
BY LOW BACKGROUND ALPHA AND BETA COUNTING  
AP1, REVISION 13; CP3, REVISION 1  
ER SQUIBB  
NORTH BRUNSWICK, NEW JERSEY**

| ESSAP Sample ID | NRC Region I Sample ID | Concentrations (pCi/L)    |                         |
|-----------------|------------------------|---------------------------|-------------------------|
|                 |                        | Gross Alpha <sup>a</sup>  | Gross Beta <sup>b</sup> |
| 834W001         | Building 124 Tank #1   | -0.35 ± 0.75 <sup>c</sup> | 51.1 ± 5.3              |

<sup>a</sup>The average MDC for gross alpha for a 100 minute count using a 0.25 L sample is 1.7 pCi/L.

<sup>b</sup>The average MDC for gross beta for a 100 minute count using a 0.25 L sample is 2.2 pCi/L.

<sup>c</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

**ORISE TABLE 2**

**CONCENTRATION OF TRITIUM  
IN A WATER SAMPLE  
BY LIQUID SCINTILLATION ANALYSIS  
AP2, REVISION 12; CP4, REVISION 1  
ER SQUIBB  
NORTH BRUNSWICK, NEW JERSEY**

| ESSAP Sample ID | NRC Region I Sample ID | Concentration (pCi/L)  |
|-----------------|------------------------|------------------------|
|                 |                        | Tritium <sup>a</sup>   |
| 834W001         | Building 124 Tank #1   | 370 ± 220 <sup>b</sup> |

<sup>a</sup>The average MDC for tritium for a 60 minute count using a 0.01 L sample is 370pCi/L.

<sup>b</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

**ORISE TABLE 3**

**CONCENTRATION OF CARBON -14  
IN A WATER SAMPLE  
BY LIQUID SCINTILLATION ANALYSIS  
NON-ROUTINE AP9, REVISION 0; CP4, REVISION1  
ER SQUIBB  
NORTH BRUNSWICK, NEW JERSEY**

| ESSAP Sample ID | NRC Region I Sample ID | Concentration (pCi/L)  |
|-----------------|------------------------|------------------------|
|                 |                        | Carbon-14 <sup>a</sup> |
| 834W001         | Building 124 Tank #1   | -5 ± 18 <sup>b</sup>   |

<sup>a</sup>The average MDC for tritium for a 60 minute count using a 0.01 L sample is 30pCi/L.

<sup>b</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.

**ORISE TABLE 4**

**CONCENTRATIONS OF SELECTED  
GAMMA EMITTING RADIONUCLIDES  
IN A WATER SAMPLE  
BY GAMMA SPECTROSCOPY CP1, REVISION 11  
ER SQUIBB  
NORTH BRUNSWICK, NEW JERSEY**

| ESSAP<br>Sample ID | NRC Region I<br>Sample ID | Radionuclide Concentrations <sup>a</sup><br>(pCi/L) |            |           |
|--------------------|---------------------------|-----------------------------------------------------|------------|-----------|
|                    |                           | Co-57                                               | Cs-137     | Co-60     |
| 834W001            | Building 124 Tank #1      | 16.7 ± 2.7 <sup>b</sup>                             | 10.4 ± 6.5 | 7.4 ± 3.5 |

<sup>a</sup>Typical MDCs for the isotopes in this table ranged from 3 to 7 pCi/L.

<sup>b</sup>Uncertainties represent the 95% confidence level, based on total propagated uncertainties.