

In Scope



WILL COUNTY HEALTH DEPARTMENT & COMMUNITY HEALTH CENTER

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Reed Township Drinking Water Sampling Project
First Phase Report prepared by Michael Vollmer
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From March 20, 2006 through March 23, 2006 samples were collected from 99 drinking water wells. The area of sampling spanned 1/2 miles north and 1/2 mile south of the Braidwood Nuclear Power Station's "blow down" line. The sampling area also included selected homes within the Village of Godley and the Godley Park District building.

99 samples were shipped to the University of Iowa Hygienic Laboratory for tritium analysis.

99 samples were analyzed at the Will County Health Department Laboratory for Nitrate analysis and 98 were tested for E. Coli and Total Coliform. (one bottle developed a leak and could not be tested). 99 samples were analyzed for nitrates.

Total coliform, E. Coli and nitrates are traditional indicators of proper well construction and/or contamination of the drinking water aquifer. Nitrates may indicate sewage leaching from a septic tank or improper isolation from surface activity. Nitrates in excess of 10 mg/l constitutes a significant threat to children under the age of 1 year. Coliforms, (especially E. coli), typically are interpreted as indicating the presence of sewage in drinking water. The federal and Illinois drinking water maximum contaminant level (MCL) for coliforms is zero and the MCL for nitrate is 10 mg/l

The Will County Laboratory results indicated:

88 samples were absent of total coliform. 10 were found to have total coliform present.
96 samples were absent of E. Coli. 2 samples were found to have E. Coli present.
94 samples contained nitrates below the MCL. 5 samples exceeded the MCL for nitrates (5 nitrate samples were greater than 6mg/l but less than 10 mg/l. i.e. close to the maximum considered safe).

Of the 99 samples sent to the University of Iowa Hygienic Laboratory for tritium analysis we have received 59 results:

48 were found below the detection limit of 207 pCi/L.
9 were found below the detection limit of 201 pCi/L.
1 sample was found to contain 230 pCi/L +/- 153.
1 sample was found to contain 264 pCi/L +/- 134.

The federal and Illinois drinking water standards allow a maximum contaminant level for tritium in drinking water at **20,000 pCi/L**. However, the most recent study available was prepared by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment and it established a Public Health Goal of **400 pCi/L** for tritium in drinking water.

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