Vermont Department of Health
Division of Health Surveillance
Public Health Laboratory

Agency of Human Services

Gross Alpha Results Interpretation Sheet

Reported results for Gross Alpha are expressed as picoCuries per liter of water. A picoCurie is a standard unit for measuring radioactivity and is one trillionth of a Curie. Both Curies and picoCuries are measurements based on how much of the radioactive substance disintegrates or "decays". Due to the random nature of radioactive decay and the length of time between sampling and analysis, it is never possible to determine the exact level of radioactivity.

ALPHA RADIATION in water is due to dissolved, naturally occurring elements such as radium and uranium. Radon is also an alpha emitter but is not measured in this screening test. Because this is a screening test, an elevated gross alpha indicates the necessity for further testing to determine which elements are present and at what levels.

1. If the measured gross alpha result is **less than 5 picoCuries** per liter, no further action is necessary.

2. If the measured gross alpha result is **greater than or equal to 5 picoCuries per liter but less than 15 picoCuries per liter**, radium 226 and radium 228 testing is recommended. Public water systems are required to test for radium 226 at this concentration. The USEPA has set a drinking water limit for radium 226 and radium 228 at 5 picoCuries per liter.

3. If the measured gross alpha result is **greater than or equal to 15 picoCuries per liter**, a test for radium 226, radium 228 and uranium is recommended.
Public water systems are required to retest for gross alpha and to test for radium 226, radium 228 and uranium.

If you have a private water supply and desire additional clarification of your report or further information concerning methods of corrective action, please contact the Health Protection Division at 1-800-439-8550 or 802-652-0358.

If you represent a public water supply and desire additional clarification of your report, please contact the Water Supply Division at 1-800-823-6500 or 802-241-3400.

Thank you.

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195 Colchester Avenue • PO Box 1125 • Burlington, VT 05402-1125 **TEL** 802-863-7335 or 800-660-9997
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VERMONT DEPARTMENT OF HEALTH LABORATORY
195 COLCHESTER AVENUE
BURLINGTON, VERMONT 05402-1125
(802) 863-7335 (800) 660-9997 (VT ONLY)
RADIOCHEMISTRY RESULTS

LITS Number 2010000275-001-A
State Health Dept No. 10R0597
Kit Type Gross Alpha - Kit RA
WSID# 0000005096
Kit Number 9663933

Public Water System Only
JERICHO-UNDERHILL WATER
Sampler Title OPERATOR
Purpose of Sample
Type of Sample Water
CHLORINE, FREE 0.21
CHLORINE, TOTAL
Field Temp (C)

Report To MARC MAHEUX
JERICHO-UNDERHILL WATER
38 POKER HILL RD
PO BX 236
UNDERHILL VT 05489

Date/Time Received 01/07/2010 15:30:00
Date/Time of Sampling 01/07/2010 12:00:00

Town Underhill
Person Taking Sample MARC MAHEUX
Sample Location Control Building/Ent Sample Tap
Field Sample Number

Report Status Reported
Date Reported 01/21/2010
Released by CMK

Analysis	Result			Units	Limit	Method
Gross Alpha	is	<	1.18	pCi/L	A.G.A.15 - see results interpretation sheet	EERF 00-02

Comments:

Registry Comments:

Definitions: pCi/L = picoCuries per liter < = less than +/- = plus or minus A.G.A. = adjusted gross alpha
A picoCurie is a unit for measuring radioactivity and is one trillionth of a curie. Curies and picoCuries are measurements of much of the radioactive substance disintegrates or decays. The first number of the result represents the level of radiation, the second, after the +/-, the possible variation above or below the measured level.

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