



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

March 13, 2014

Michael D. Cimis, Assistant Director of Environmental Health & Safety
Dartmouth College
37 Dewey Field Road, Suite 6216
Hanover, NH 03755

Subject: Hanover – Dartmouth College Rennie Farm Site, Hanover Center Road
DES Site #201111109, Project #277737

Groundwater Monitoring Results for 2013 Sampling Events – Letter Report,
prepared by GZA GeoEnvironmental (GZA), and dated January 17, 2014

July and November 2012 Groundwater Monitoring Results – Letter Report,
prepared by GZA, dated January 15, 2013

Dear Mr. Cimis:

The Department of Environmental Services (Department) has completed its review of the above-referenced reports for the Dartmouth College Rennie Farm site, as previously submitted in accordance with the requirements outlined in the Department's June 19, 2012 letter. Based on our review, we note that the volatile organic compound (VOC) 1,4-dioxane continues to be detected in site groundwater at concentrations that significantly exceed the Department's Ambient Groundwater Quality Standard (AGQS). Most recently, 1,4-dioxane was reported at a concentration of 94 micrograms per liter (ug/l) (December 2013 sampling) in a groundwater sample collected from on-site monitoring well GZ-2. The AGQS for 1,4-dioxane is 3 ug/l.

Included in the January 2014 submittal are results from the one groundwater sampling round (also December 2013) which included an off-site private well serving a seasonal camp property located to the northeast of the subject site. The analytical results for the private well groundwater sample indicate that 1,4-dioxane (only) was detected, at a concentration of 1.8 ug/l (less than the relevant AGQS).

Based on the above-described conditions, and consistent with the approach described in the Department's June 19, 2012 letter, a Groundwater Management Permit will be required for this site. The Groundwater Management Permit will establish a formal program of periodic water quality monitoring, along with administrative controls to define the area of site-related AGQS exceedances(s) and address potential impacts to any identified groundwater receptors. Specific requirements associated with the Permit application may be found in Part Env-Or 607 of the Department's *Contaminated Site Management Rules*.

Note that additional monitoring wells are required to assess the extent of 1,4-dioxane in downgradient groundwater and delineate a Groundwater Management Zone (GMZ) for the site, within which the site-related exceedances of AGQS are contained, prior to issuance of the Permit. Based on the information provided to date, we suggest that installation and sampling of at least two additional (on-site) groundwater monitoring wells in the area to the northeast of the remediation area would provide key groundwater quality and elevation data to more completely

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