

US EPA ARCHIVE DOCUMENT

Study Concludes Ground Water Plume Poses No Known Health Risk to Residents

Chevron Cincinnati Facility

Hooven, Ohio

October 2005

Need information?

Visit EPA's Web page:

epa.gov/region5/sites/chevron

Review documents at the site information repository:

Cincinnati Public Library
Miami Township Branch
8 Miami Ave., Cleves

Contact EPA:

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EPA toll free:
(800) 621-8431
weekdays 10 a.m. - 5:30 p.m.

Watch for a mailing about the proposed ground-water plan:

EPA will mail an announcement
soon about a public hearing and
comment period.

Attend a CAP meeting:

Anyone can attend a Chevron
sponsored community advisory panel
meeting. The CAP typically meets
the first Wednesday of every month
at the Whitewater Senior Center and
Township Hall. Contact Chevron's
meeting facilitator Monte McKillip
at (402) 327-9498 or
monte@mckillipassociates.com for
more information.

Results of a recent soil vapor (gas) investigation in Hooven's residential area show that vapor from contaminated ground water deep underground poses no known health risk to residents. The study reveals that the vapor degrades before reaching the surface. Chevron did the sampling project at U.S. Environmental Protection Agency's direction to address residents' concerns about possible problems with the assumptions used in a similar study done in 2000. In addition, EPA wanted Chevron to include the most up-to-date chemical hazard information and use the latest EPA guidelines for checking potential vapor movement into homes. The sampling project is the latest to investigate a large area of polluted ground water – called a plume – of floating petroleum products (mostly gasoline). The plume lies beneath the former Chevron facility and extends west beneath portions of Hooven at depths of about 35 to 65 feet below surface.

Site work

From March to May of this year, Chevron conducted field work beginning with meeting property owners to record basement type (concrete slab, dirt floor, crawl space, combination) and identify items stored or used in the basements that could confuse test results. Nearly 80 sampling probes were installed beneath basements and yards to test soil vapor at various depths, and nine water wells were drilled. Outside air was monitored during the field work and soil vapor and ground-water samples were sent to a laboratory for testing.

Vapors just below surface

By studying chemical concentrations from beneath basements and yards, investigators discovered low levels of chemicals underground near the surface. With a few exceptions, these surface chemical concentrations meet EPA's accepted safety levels. (Residents whose property was sampled will be provided their test results in the near future.)

EPA scientists believe these surface chemicals are not related to the plume because the vapor contains chemicals that are not in the plume such as solvents, a gasoline additive not used at the refinery (called MTBE), and a by-product associated with disinfecting public drinking water. Secondly, this mixture was also found in surface soil vapor collected outside the so-called plume "footprint." This suggests sources other than the plume. Finally, another reason surface chemicals are not related to the plume is because samples collected from intermediate depths contain little or no petroleum-related chemicals. Oxygen levels are right for bacteria to break down chemicals, providing additional support to the idea that plume vapor degrades before reaching the surface. EPA will talk more about these findings Nov. 9 at an open house and public meeting (*see reverse side for more information*).

Next steps

Completion of the soil vapor study paves the way for EPA to develop a plan soon that proposes options for cleaning up the ground-water contamination underneath the former facility and portions of Hooven.

EPA to Host Open House and Public Meeting

Wednesday, Nov. 9, 2005

Open House 6 p.m.; Public Meeting 7:30 – 9 p.m.

**Whitewater Senior Center and Township Hall
6125 Dry Fork Road**

U.S. Environmental Protection Agency will host an open house and public meeting to present results of a soil vapor (gas) investigation and human health risk assessment. The study evaluated whether people could be exposed to vapor from contaminated water lying deep below portions of Hooven. EPA is completing its review of the study, which was done by Chevron at EPA's direction. The study concluded that vapor from contaminated ground water poses no known health risk to Hooven residents.

The evening will start with an open house to give residents an opportunity to meet informally with members of the EPA project team. Residents whose properties were sampled may bring their test results to discuss them with an EPA representative. (Chevron will be mailing results soon). Immediately following the open house, EPA will give a presentation and answer questions from the audience at a public meeting. Chevron staff and their consultants, who conducted the soil vapor testing, will also be available to answer questions.

The study, *Subsurface Investigation Field Activities Report and Human Health Risk Assessment*, along with an EPA fact sheet about health risk issues and other information will be posted on EPA's Web page and placed in the library. For more information or special accommodations at the meeting contact EPA Community Involvement Coordinator Bri Bill using the information on the reverse side.



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