

PRELIMINARY  
**Health**  
**Assessment**  
**for**

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MATLACK, INCORPORATED

SWEDESBORO, GLOUCESTER COUNTY, NEW JERSEY

JANUARY 19, 1989

Agency for Toxic Substances and Disease Registry  
U.S. Public Health Service

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## THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT  
MATTACK, INCORPORATED  
GLOUCESTER COUNTY  
SWEDESBORO, NEW JERSEY  
January 19, 1989

Prepared by:  
Office of Health Assessment  
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Matlack, Incorporated, site is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List (NPL). The facility is a tank cleaning and truck terminal that has been in operation since 1960. From 1962 until 1976, an unlined lagoon was utilized to dispose of process wastewaters from the cleaning operation. In 1976, the lagoon was pumped and filled with soil and demolition debris. The sludge was left in place. There are several large, underground storage tanks for solvents and waste products on site also. Soil and groundwater contamination have resulted from these operations.

EPA has determined that the site is subject to the corrective action authority of Subtitle C of the Resource Conservation and Recovery Act (RCRA) and is due to be dropped from the NPL list, by virtue of having submitted a corrective action plan (Remedial Investigation/Feasibility Study and implement the corrective action). The RI/FS is scheduled to be completed in 1988.

The following documents were provided to ATSDR for review: Preliminary Assessment, August 22, 1984; Phase I Hydrogeologic Investigation, September 17, 1984; and Site Inspection Report, September 18, 1985. These documents form the basis of this preliminary health assessment.

Environmental Contamination and Physical Hazards

The environmental contamination on-site consists of total volatile organic hydrocarbons (VOCs) in groundwater (11 ppb) and soil, including chloroform, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene, xylenes, toluene, benzene, chlorinated benzenes, and methylene chloride.

The environmental contamination off-site consists of VOCs (2,230 ppb) in residential well water, including 1,1-dichloroethylene (15 ppb), trans-1,2-dichloroethylene (16 ppb), 1,1,1-trichloroethane (870 ppb), trichloroethylene (1,200 ppb), and tetrachloroethylene (125 ppb).

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No physical hazards were reported on this site. There is unrestricted public access to the site.

Potential Environmental and Exposure Pathways

The environmental pathways of concern are contaminated soil and groundwater.

The human exposure pathways of concern are ingestion, dermal absorption, and inhalation (volatile components) of contaminated groundwater, and ingestion of contaminated soil.

Demographics

The closest residence is approximately 200 feet away from the site. Within a one-mile radius of the site, there are an estimated 300 people. The area surrounding the site is predominately agricultural. Private residential wells that reach the upper aquifer (Pensauken Formation) are located in the vicinity of the site, however, most of the domestic supplies in the area are taken from the deeper Magothy-Rariton Formation.

Evaluation and Discussion

The on-site soil sampling is limited to two samples collected at depths of 24 and 48 inches, respectively. The ppb level contamination in these samples would not be expected to pose any public health concern considering their depth; however, potentially they could contribute to further groundwater degradation as a result of surface water percolation and groundwater migration. Surface soil samples have not been collected, so the potential impact to public health cannot be determined.

Groundwater on- and off-site is contaminated. Several private wells in the site vicinity have been sampled (circa 1982) but only one was found to be contaminated. The users of this well were placed on bottled water. It is not clear whether or not this alternate supply was intended for consumption uses only or for all domestic uses. Recent evidence suggests that bathing and showering (resulting in inhalation, and to a lesser extent dermal, exposure) with water contaminated with VOCs may contribute a greater proportion of the total exposure than consumption.

Monitoring data indicates that public water supply systems are uncontaminated.

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Since wastes were either discharged to underground tanks or to a lagoon that has since been emptied and backfilled, contaminated surface water runoff should not be an environmental pathway of concern. However, no data are available to substantiate this assertion. This may be important since there is a drainageway (Raccoon Creek) which leads ultimately to the Delaware River adjacent to the site.

ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants noted above.

Conclusions and Recommendations

Based on the available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of exposure to hazardous substances via contaminated groundwater. No data are available to assess the public health importance of surface soil and water pathways. More recent data on contaminant levels in local wells is needed. The remedial action taken in regard to the one well found to be contaminated in 1982 may not have been fully protective of public health. The nature of use of the water from this well should be determined to find out if additional remedial actions are necessary.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data become available, e.g., the completed RI/FS, such material will form the basis for further assessment by ATSDR at a later date.