

Lakes Construction Site

Tabernacle Township, Burlington County

POTABLE WELL TESTING

To date [July 2004] sampling has identified a total of twelve homes in the area with mercury contamination over the state standard (11 have been confirmed), ten homes with Tetrahydrofuran (THF) contamination (only eight of which have been confirmed after three rounds of sampling), one home with lead contamination over the state standard, one home with Tetrachloroethene (PCE) and Trichloroethene (TCE) contamination over the state standard and one home with vinyl chloride contamination over the state standard. There are a total of nineteen homes that have been impacted by one or more of the contaminants listed above. The homes with mercury, PCE, TCE and vinyl chloride contamination were eligible to receive a Point-of-Entry Treatment (POET) system through NJDEP's Spill Fund Program as an immediate response to the ground water contamination. The POET, installed by a local vendor, removes the contaminants from all the water used in the home. Monitoring and maintenance of the system is also provided to ensure reliability.

Owners of the homes with THF levels over the standard of 10 parts per billion as well as the one home with lead contamination, were advised to use bottled water until an effective treatment or remedy could be recommended. Tetrahydrofuran is a volatile organic compound that is not commonly seen in private potable wells. THF is a compound that is frequently used in cements associated with polyvinyl chloride (PVC) plastic piping. PVC pipes and cements are sometimes used in wells and/or home plumbing that provide drinking water. Typically, lead can get into the drinking water from plumbing and fixtures in the home by way of corrosion. Lead and other metals from the pipes slowly dissolve in the water resulting in elevated lead results.

MONITORING WELL DATA

In an effort to determine whether THF and lead are present in the ground water, NJDEP installed four additional monitoring wells in January 2004. Three wells are located on the Lakes site and one well was installed off site in the direction of ground water flow. The well depths range from 50 feet to 120 feet. In addition, three other wells previously installed by the property owners, ranging in depth from 37-48 feet, were also sampled. Of the seven wells that were sampled in January 2004, five wells showed detection of lead and one well (120 ft.) showed a detection of THF at 3.4 parts per billion. *(Results from all monitoring well sampling is available for review in the repositories)*

FUTURE ACTIONS ON POTABLE WELLS

Based on the results of the January 2004 monitoring well data, NJDEP is proposing to pay for the installation of deeper wells for homes in this area that have **two** samples over the standard of 10 parts per billion for Tetrahydrofuran. NJDEP is currently in the process of drafting the well specifications that must be followed for the deeper well installation. The estimated depth of the deeper wells is 355-415 feet and will be in the Wenonah Mount Laurel Aquifer. NJDEP is also planning to do additional potable well testing in this area in an effort to delineate the extent of the contamination.

SOLID WASTE

The Division of Solid and Hazardous Waste (Division) reviewed the application for the landfill disruption and prepared a draft approval to disrupt, screen and remove the waste material for offsite disposal in accordance with applicable regulations N.J.A.C. 7:26-2A.8(j). The first phase of the Disruption Approval is for the delineation and investigation of the landfill waste with exploratory test pits. Provided this investigation of the landfill confirms non-hazardous waste, they will proceed to the next phase of the Disruption Approval. The second phase includes the extraction of the landfill waste and screening of the soil to be accepted as cover material at a licensed solid waste facility. Approximately 100,000 cubic yards of debris and solid waste material will be removed and disposed at a licensed solid waste facility. The excavated waste will be screened for recoverable material. An annual report will be submitted to the Division detailing the progress of the extraction of the landfill. Within thirty (30) days of completion of the removal of the entire landfill, the applicant will be required to submit a report for the Division's review. This report must contain information on the total amount of waste removed, documentation that waste

material has been accepted by the disposal facility, as-built plans and all sampling results. The property owners will also be required to sample two of the on site monitoring wells quarterly.

During the review of the disruption request, the Department was working with officials of Tabernacle Township regarding the groundwater contamination in this area of the site. As part of our efforts to keep the Township apprised, the draft disruption was sent to the Tabernacle Township for their comments. On September 30, 2003, the Township sent their comments on the draft approval. These comments are currently being evaluated to determine if there are salient issues that must be considered and addressed before the landfill disruption approval can be issued. A response to the September 30, 2003 letter and any modification to the disruption approval will be sent to the Township before the public meeting.

UNDERGROUND STORAGE TANK SUMMARY

On February 16, 1994, twelve underground storage tanks (UST's) with various uses were removed. Based upon visual observation and field instrument readings approximately 150 tons of contaminated soil was also removed. A total of 45 soil samples were collected from the common excavation containing the tanks. The soil samples associated with the former diesel UST's were analyzed for total petroleum hydrocarbons (TPHC). All results were below 1,000 parts per million, which is the Department's trigger level for additional investigation. All soil samples associated with the former gasoline UST's were analyzed for volatile organic compounds and lead.

On November 11, 2002, forty soil samples were collected below the former UST inverts and analyzed for compounds specific to each of the UST's. No compounds were identified in excess of the Department's most stringent soil cleanup criteria. On January 10, 2003 ground water samples were collected from monitoring wells MW-1, MW-2 and MW-3. These wells were installed to evaluate possible impacts to ground water from the former UST's. MW-2 contained ethylbenzene (15.1 ppb) and total xylenes (89.2 ppb). Following this sampling event an additional downgradient monitoring well MW-4 was installed in order to further delineate the ground water contaminant plume. On December 30, 2003 a second ground water sampling event was conducted utilizing MW-1 through MW-4. During the gauging event traces of free product (suspected gasoline) were observed for the first time in MW-2. MW-2 contained benzene (828 ppb), ethylbenzene (177 ppb), total xylenes (500 ppb), naphthalene (3,790 ppb) and toluene (471 ppb). MW-4 contained ethylbenzene (5.19 ppb), total xylenes (11.17 ppb) and naphthalene (66.3 ppb).

On March 9, 2004, the property owners met with the Department's Bureau of Southern Case Management to discuss additional requirements for soil and ground water investigation and remediation activities related to the above mentioned UST issues. The property owner is required to confirm the ground water flow direction, install additional monitoring wells to horizontally and vertically define the contaminant plume, and conduct additional ground water sampling.

REPOSITORIES

The 1995 Preliminary Assessment and Site Investigation Report, 2003 Geoprobe and Monitoring Well data as well as the January 2004 Monitoring Well data are available for review at the designated repositories.

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