DEPARTMENT OF THE ARMY
Headquarters, U.S. Army Garrison Fort Monmouth
Fort Monmouth, New Jersey 07703-5000

REPLY TO
ATTENTION OF

Directorate of Public Works

December 15, 1999

State of New Jersey
Department of Environmental Protection
Division of Responsible Party Site Remediation
Bureau of Case Management
401 East State Street, 5th Floor
ATTN: Ian Curtis
P.O. 028
Trenton, NJ 08625-0028

SUBJECT: Remedial Investigation of Landfill Site M8

Dear Mr. Curtis:

As part of an ongoing remedial investigation at landfill site M8, the Directorate of Public Works (DPW) has installed a total of thirteen shallow monitoring wells in order to evaluate ground water quality. During the site investigation phase of this project, four monitoring wells (four-inch diameter) were installed. To date, ten consecutive quarterly rounds of ground water samples have been collected from each of the four wells. The Standard Operating Procedure (SOP No.: SAM-0205) titled "Monitor Well Sampling for Installation Restoration Program (IRP) Sites at Fort Monmouth", which documents our sampling procedures, is enclosed for your review and edification. Each sample was analyzed for Target Compound List (TCL) plus 30 parameters and Target Analyte List (TAL) metals. Based upon the presence of moderate levels of benzene and chlorobenzene within site ground water, the DPW was preparing to develop a Remedial Action Work Plan which stipulated natural attenuation for the two contaminants of concern. This matter was discussed between us during an earlier onsite visit to Fort Monmouth. At the time you verbally recommended that we install additional monitoring wells and collect subsequent ground water samples to better support our natural attenuation approach. The DPW installed seven monitoring wells (two-inch diameter) in September of 1998. The wells were placed down gradient of the landfill, adjacent to Parkers Creek, spaced at 200 to 300 foot intervals. Following the well installations, five ground water sampling events have been completed during four consecutive quarterly periods. Each sample was analyzed for TCL plus 30 parameters and TAL metals. Moderate levels of benzene and chlorobenzene have been identified in four of the seven wells. Two additional wells (four-inch diameter) were installed in March of 1999 to further delineate a tetrachloroethylene plume originating from landfill site M5. Following the well installations, three ground water sampling events have been completed during two consecutive quarterly periods. Each sample was analyzed for TCL plus 30 parameters and TAL metals. Polychlorinated biphenyls (PCB) were identified within one of the two monitoring wells (M8MW24). The analytical results for well M8MW24 can be viewed in Table # 1.

Table # 1

Monitoring Well M8MW24

Sample Date	Purge Rate (Milliliters/Minute)	Contaminant of Concern	Result (ug/L)	NJDEP GW Quality Criteria
4/14/99	871	PCB	4.188	0.50
4/28/99	871	PCB	8.84	0.50
9/23/99	871	PCB	ND	0.50

In an effort to determine the source of the PCB contamination, the DPW has collected soil samples within the vicinity of well M8MW24. PCBs have been identified within site soils. Furthermore, PCBs were identified within the soil column just above the water table. It is our belief that the PCB levels observed within the ground water at well M8MW24 is a function of PCB oils adhering to soil particles which are being drawn into the saturated section of the monitoring well during the course of well purging and sampling activities. We therefore conclude that the PCB contamination identified in earlier sampling rounds is not a true indication of their presence within site ground water.

In order to substantiate our position, the DPW proposes to collect two rounds of ground water samples from well M8MW24 under a low flow purge and sampling procedure. The attached Field Sampling and Quality Assurance Plan is hereby submitted for your review and approval. Should you have any questions or require any additional information at this time, the undersigned can be contacted at the following telephone number: (732) 532-6223.

Sincerely,

Joseph M. Fallon

Joseph M. Fallon, CHMM
Environmental Protection Specialist
Directorate of Public Works

Enclosures