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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC
9742 MARYLAND AVENUE
NORFOLK, VA 23511-3095

IN REPLY REFER TO:

5090
OPNEEV4/SWC
September 5, 2007

Mr. Steven M. Scharf
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Action Bureau A, 11th Floor
625 Broadway
Albany, New York 12233-7015

Subject: SOIL AND GROUNDWATER MONITORING REPORT IN SUPPORT OF CLOSED LOOP BIOREACTOR (CLB) PILOT SCALE STUDY FOR AOC 22/SITE 4, AUGUST 2007, NWIRP BETHPAGE, NEW YORK

Dear Mr. Scharf:

The Navy is forwarding two copies of the enclosed "Soil and Groundwater Monitoring Report in Support of Closed Loop Bioreactor (CLB) Pilot Scale Study for AOC-22/Site 4" Report for your review and use. The report discusses the effects of a pilot scale bioremediation study on soil and groundwater at the Area of Concern (AOC)-22/Installation Restoration (IR) Site 4 at NWIRP Bethpage. The study was conducted between fall 2004 and spring 2006.

In summary, the operation of the CLB System reduced total petroleum hydrocarbons (TPH) by approximately 17 percent. The majority of residual petroleum contamination and associated polynuclear aromatic hydrocarbons (PAHs) remaining at the site are at a depth of approximately 50 to 60 feet below ground surface, which is consistent with pre-study conditions.

For groundwater, there is no evidence that the organic constituents become soluble as a result of the study. However, the operation of the CLB System may have resulted in dissolved iron increasing in one downgradient monitoring well.

This report will be discussed at the September 17, 2007 meeting at your offices in Albany. Please contact me if you have any questions.

Sincerely,

Susan W. Clarke

SUSAN W. CLARKE
Remedial Project Manager
By Direction of the
Commanding Officer