



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WATERVLIET ARSENAL
WATERVLIET, NEW YORK 12189-4050

Vic

Industrial Risk Management Division

June 13, 2002

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& LAND MANAGEMENT
DIVISION OF SOLID &
HAZARDOUS MATERIALS

Mr. Raymond Basso
U.S. Environmental Protection Agency
Chief – RCRA Programs Branch
290 Broadway, 22nd Floor
New York, New York 10007

Re: Final Rebound Monitoring Work Plan and Schedule
Bedrock Chemical Oxidation Pilot Study
Building 40 Area
Watervliet Arsenal, Watervliet, New York

Dear Mr. Basso:

As discussed in the approved *Work Plan for Building 25 and Building 40 Pilot Studies, Main Manufacturing Area, Watervliet Arsenal, Watervliet, New York*, dated December 2001, rebound monitoring is to be conducted at the Building 40 area upon the completion of the Phase II potassium permanganate injections. However, since the exact results of the pilot study could not be anticipated prior to performance of the injection program, the scope of the rebound monitoring in the December 2001 Work Plan was general in nature. The purpose of this letter is to present an updated Work Plan for the rebound monitoring based on the results of the potassium permanganate injections conducted to date. This letter also presents a revised schedule for the project as discussed at the meeting held at the Watervliet Arsenal on June 10, 2002.

REBOUND MONITORING WORK PLAN

Rebound monitoring will consist of the following items:

- # Monitoring wells MW-34, MW-74 (all depth intervals), MW-75 (all depth intervals), and MW-76 (all depth intervals) will be included in the rebound monitoring program. Potassium permanganate has been detected in each of these monitoring wells during the pilot study. These wells are also located in the area of the greatest pre-pilot volatile organic compound (VOC) concentrations in groundwater. As such, these wells will provide the most beneficial monitoring points for the evaluation of potassium permanganate persistence and VOC rebound in the groundwater.
- # All depth intervals in each well will be sampled on a bi-weekly basis beginning immediately upon the completion of the last potassium permanganate injection event on June 25, 2002. Each sample will be analyzed for potassium permanganate and chloride

concentration using field analytical techniques. Purging of each well/interval will be limited to minimize the amount of potassium permanganate withdrawn from the subsurface through purging.


- # Bi-weekly sampling of each interval will continue until potassium permanganate is no longer visible in the groundwater sample from a particular well/interval. At this point, the well/interval will be sampled for analysis of VOCs by an analytical laboratory. VOC sampling will continue at these wells/intervals on a monthly basis until the end of the rebound monitoring program.
- # The rebound monitoring program will continue through November 2002, at which time the results of the rebound monitoring will be incorporated into the focused Corrective Measures Study (CMS) for the Main Manufacturing Area.
- # Field and laboratory analytical methods for the rebound monitoring program will be in accordance with the approved December 2001 Work Plan.

BUILDING 40 PILOT SCHEDULE

A revised schedule for the Building 40 pilot study is attached. As shown in the schedule, at the request of the USEPA, a full round of VOC and groundwater geochemical monitoring will be conducted upon the conclusion of the potassium permanganate injection program on June 25, 2002. This round of sampling will coincide with the first rebound monitoring event described above.

In accordance with the revised schedule, the first "rebound monitoring only" event will take place on July 8 and 9, 2002. Accordingly, we ask that you provide any comments on the rebound monitoring scope by July 3, 2002.

Please contact Ms. JoAnn Kellogg at (518) 266-5286 or Mr. Stephen Wood at (410) 962-3506 if you have any questions concerning this submittal.


JAMES J. KARDAS
Chief, Environmental Division

Enclosures

Mr. Raymond Basso
USEPA

June 12, 2002
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