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15 (12/75)

Reg. 7 - Oswego

FILE COPY

New York State Department of Environmental Conservation

MEMORANDUM

73803

TO: Mr. Charles Branagh, P.E. - Region 7
FROM: Mr. Raymond E. Lupe, P.E. - Bureau of Hazardous Site Control
SUBJECT: Volney Silk Road Landfill - Oswego County

DATE: October 12, 1984

I have reviewed the reports entitled "Engineering Report for the Closure of the Oswego Valley Sanitary Landfill", prepared by Barton and Loguidice; and "Evaluation of Hydrogeologic Conditions and Preparation of A Ground Water Monitoring Program, Oswego Valley Landfill", prepared by Geraghty and Miller, Inc.

The following comments are offered for your consideration and address primarily the hydrogeological report:

1. Both the Geraghty and Miller report and the Barton and Loguidice Closure Plan indicates that leachate production and migration of contaminants from the landfill will be eliminated by the PVC liner and till cap to be placed over the southern section of the landfill. While the ground water mounding under the landfill may decline, lateral transport of contaminants, from under the landfill may still occur during declining water levels. Also, ground water may still move laterally through the landfill, especially in a southwest to northeast direction. Therefore, the capping of the landfill should not be considered as the final closure plan, until its effectiveness is determined by long term monitoring. Recommendation #2 on Page 5 of the Geraghty and Miller report (to carry out a long term monitoring program) must be performed and should not be optional.

2. Both reports indicate that contamination of the bedrock aquifer is unlikely because the permeability of the lodgement till is low. What is the permability of the lodgement till; and is it continous throughout the area?

3. The Geraghty and Miller report appears to casually dismiss obvious ground water contamination occuring around the landfill; and does not recommend including iron, maganese, and chlorides, in the monitoring program because these constituents may be reflective of natural conditions; road salting; and salt storage. However, the data in the Barton and Loguidice report indicates that trace organics have also been found in USGS wells 3a, 3b, 6 and 10, and very high levels of iron (9.1 -39 ppm) have been measured in the USGS test wells indicating contamination far in excess of background conditions. Also, what is the reality that road salting or storage have affected the test wells of concern?

4. The monitoring program proposed in the Geraghy and Miller report is not adequate. For example, test wells 3a, 3b,

6, 9, and 15 all are listed as being contaminated in the Barton and Loguidice report, but are not included in the proposed monitoring program. In addition, the following chemical analyses should also be preformed on a quarterly basis; iron, maganese, cyanide, phenols, chlorides; and volatile organics. Priority pollutant analyses should be conducted on a selected number of wells on an annual basis. Also, the narrative indicates that there are 6 proposed monitoring wells, but only 5 are shown. Clustered wells should be installed to measure potential contamination of the bedrock aquifer.

5. The analyses to be performed in the surface water monitoring program were not listed. Both sediment and water column samples should be collected and analyzed. In addition, two additional sampling locations are recommended as shown on the attached figure.

6. Major concerns regarding the actual phase I closure plan are:

   a) How will the leachate that is collected in the northern and central sections of the landfill be treated and/or disposed?

   b) Is the 20 mil PVC liner of adequate strength to resist tears and punctures, etc?

7. Any approval of this closure plan should be conditioned on the monitoring program being carried out over a 3 - 5 year period; and a potential phase III closure performed as necessary.

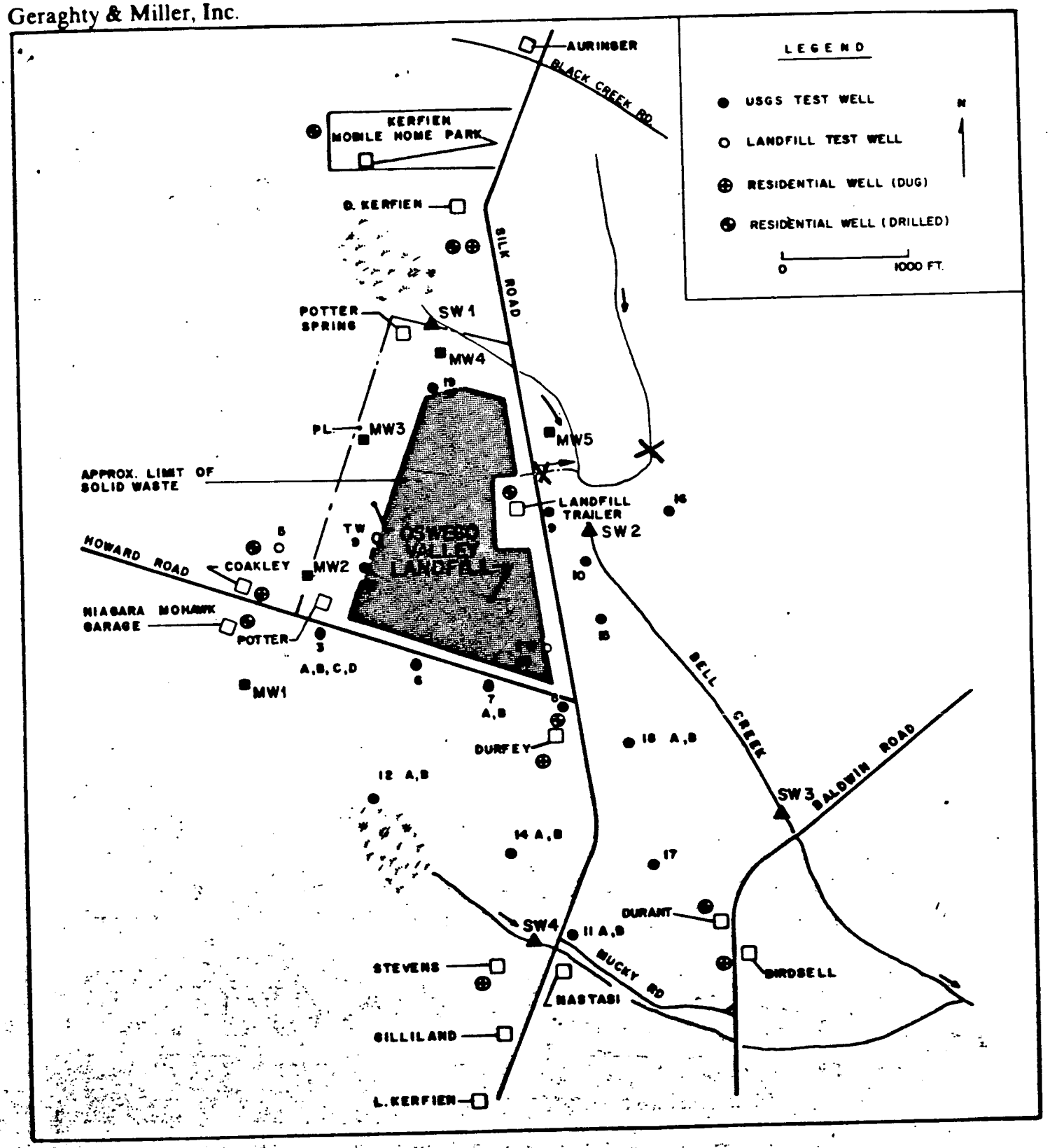
8. The cleaning procedure for the drilling equipment and split spoon samplers is inadequate. Steam cleaning and/or detergent wash followed by an acetone rinse, followed by a distilled water rinse is recommended.

If you have any questions, please call me at (518) 457-9538.

Attachment

bcc: N. Nosenchuck
M. O'Toole
C. Goddard
M. Chen
W. Demick
S. Lackey, Region 7

REL;sjc



EXPLANATION

■ PROPOSED MONITORING WELL
▲ PROPOSED SURFACE-WATER STATION

X - Recommended Additions to Proposed Surface-Water Sampling (NYSDEC Review, Oct. 1984)

FIGURE 7 - LOCATIONS OF PROPOSED MONITORING WELLS AND SURFACE-WATER STATIONS, Oswego County Landfill, Oswego County, New York.

File on eDOCs ___ Yes ___ No

Site Name Volney

Site No. 738003

County Oswego

Town Volney

Foilable ___ Yes ___ No

File Name 1984-10-12. Engineering Report - Comments

Scanned & eDOC ___