Illinois Institute of Natural Resources

State Geological Survey Division

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EPA Region 5 Records Ctr.
355947

June 24, 1980

Mr. Ron Lillich, Biologist
Hazardous Waste Investigations Section
Surveillance and Analysis Division
U. S. Environmental Protection Agency - Region V
536 South Clark Street
Chicago, IL 60605

Dear Ron:

This is in response to your recent request for hydrogeologic information for property owned by Shipper's Carline in East St. Louis, Illinois. According to your letter, this facility has an unlined lagoon used for disposal of rinsate from tank cars. The property is located on the American Bottoms, approximately in the SE¼ Section 14, T. 2 N., R. 10 W., St. Clair County. The following information was derived from the files of the Illinois Geological Survey.

The property in question is located on the Mississippi River floodplain, and is underlain by over 100 feet of alluvial deposits. Well logs for this area suggest up to 40 feet of predominantly fine-grained sediments (silt and clay)are present at the surface,overlying up to 100 feet or more of sand and some gravel.

Wells in the area are finished in the sand and some are high-capacity wells. Ground-water movement in the alluvium is toward the river, but may be modified by pumpage from large-capacity wells, if present, in the area. Although information is sparse, the static water level in the alluvium would probably be encountered within ten to twenty feet of the land surface.

Any discharge from the lagoon into the subsurface would be expected to migrate downward toward the static water level, and could migrate with ground water toward the river or toward a high-capacity well, if present in the area. Depending on the nature of the wastes, the fine-grained surficial materials may provide some attentuation of contaminants in the subsurface. The program outlined in your letter to determine water quality in the vicinity of the lagoon should provide valuable information. If ground water shows evidence of contamination, a well inventory would be helpful to determine whether there are high-capacity wells in that area that could be affected. A larger monitoring program may then be necessary to determine the extent of ground-water contamination.

I hope this information is helpful. Let us know if we can be of further assistance.

Very truly yours,

David E. Lindorff
Assistant Geologist
Hydrogeology and Geophysics Section