

SITE SUMMARY**ISSUE:**

- Norfolk Naval Base, Norfolk, Virginia: Site 1, Camp Allen Landfill Area B.

SUMMARY:

- The results of groundwater and surface water sampling indicated localized areas of contamination from organic compounds within the site. Some inorganic constituents were also detected at elevated levels in groundwater and surface water at the site. Some of these compounds exceed EPA MCLs, CWA criteria or SWCB groundwater standards. However, some of the chemical analyses that were made and sampling locations are not adequate to fully evaluate the impact of the landfill on groundwater and surface water quality. Additional sampling will be performed as part of the remedial investigation.

BACKGROUND:

- The Camp Allen Landfill, Area B includes an area of approximately 2 acres in size. In 1971, a fire in a salvage yard located between landfill Areas A and B occurred where waste lubricating oils, organic solvents, paints, paint thinners, acids, caustics, and pesticides were stored. It was reported that the burned material, smoldering residue from the fire and residual waste, which had not burned, were buried just east of the salvage yard in Area B. The trenches used for landfilling in Area B were reportedly about 150 feet long, 6 to 8 feet deep and 10 feet wide.

- Previous studies at the site included: an Initial Assessment Study completed in 1983 and a Confirmation Study interim report completed in 1988.

DISCUSSION:

- The Confirmation Study investigation included the installation of shallow monitoring wells and completion of a groundwater and surface water sampling and analysis program. Three monitoring wells were installed in and around the site. Groundwater and surface water sampling events occurred in 1983, 1984, and 1986.

- Organic compounds were detected at elevated concentrations at location GW-4. The compounds detected in the highest concentrations were trans-1,2-dichloroethylene, benzene, trichloroethylene, vinyl chloride, methylene chloride, trichlorofluoromethane, and methyl isobutyl ketone. The concentrations of these compounds at this location have varied widely between the three sampling events. Some inorganic constituents were also detected at elevated levels in groundwater and surface water at the site. However, these inorganic concentrations represent total metals concentrations and, therefore, may not be indicative of metals that are dissolved in the groundwater or surface water. Monitoring wells that were sampled during the Confirmation Study did not provide adequate coverage of potential flow paths away from the site.

FUTURE PLANS:

- Soil gas vapors will be collected and analyzed for volatile organic compounds at the site. The purpose of this study will be to help determine the location of the trenches and hot spots of contamination.

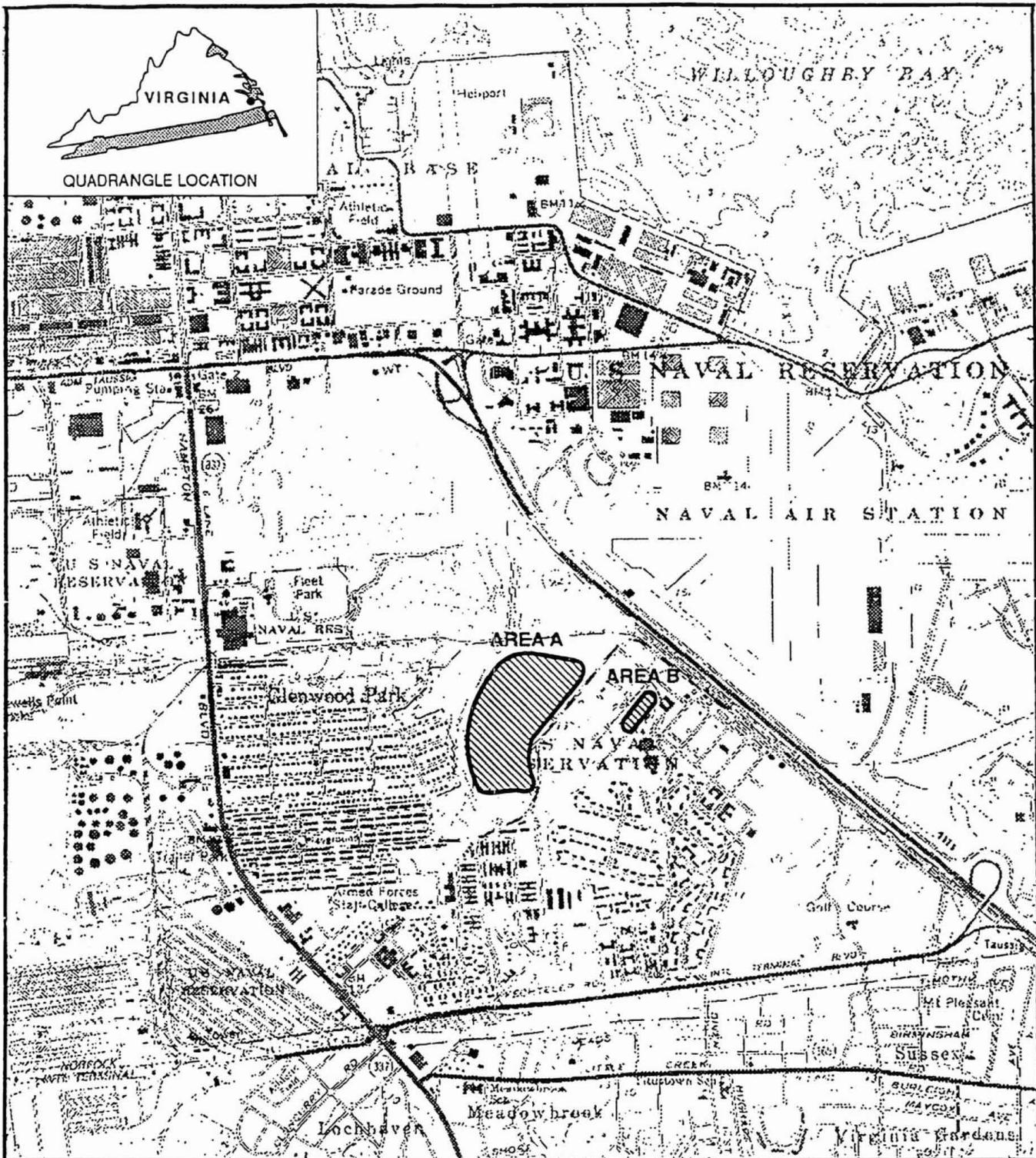
- Eleven monitoring wells will be installed at the site. Eight of the wells will be shallow (25 feet deep) and the remaining three will be deep (60 feet). These wells will be installed to provide a better understanding of the potential for the landfill to impact the shallow and deep groundwater.

- Fourteen groundwater samples will be collected from existing and new monitoring wells. Four surface water and sediment samples will be collected from the drainage adjacent to the site.

- In-situ hydraulic conductivity tests will be performed in eight of the monitoring wells to assist in determining the rate of groundwater flow at the site.

- A remedial investigation report will be prepared that summarizes and interprets the data collected during this investigation and from the previous investigations. As part of the report, a base-line risk assessment will be conducted at the site to perform human health risk characterization. A feasibility study report will be prepared to select and describe remedial actions that would be appropriate for mitigating confirmed contamination.

WDC30060.0001.01



Legend
 Camp Allen Landfill

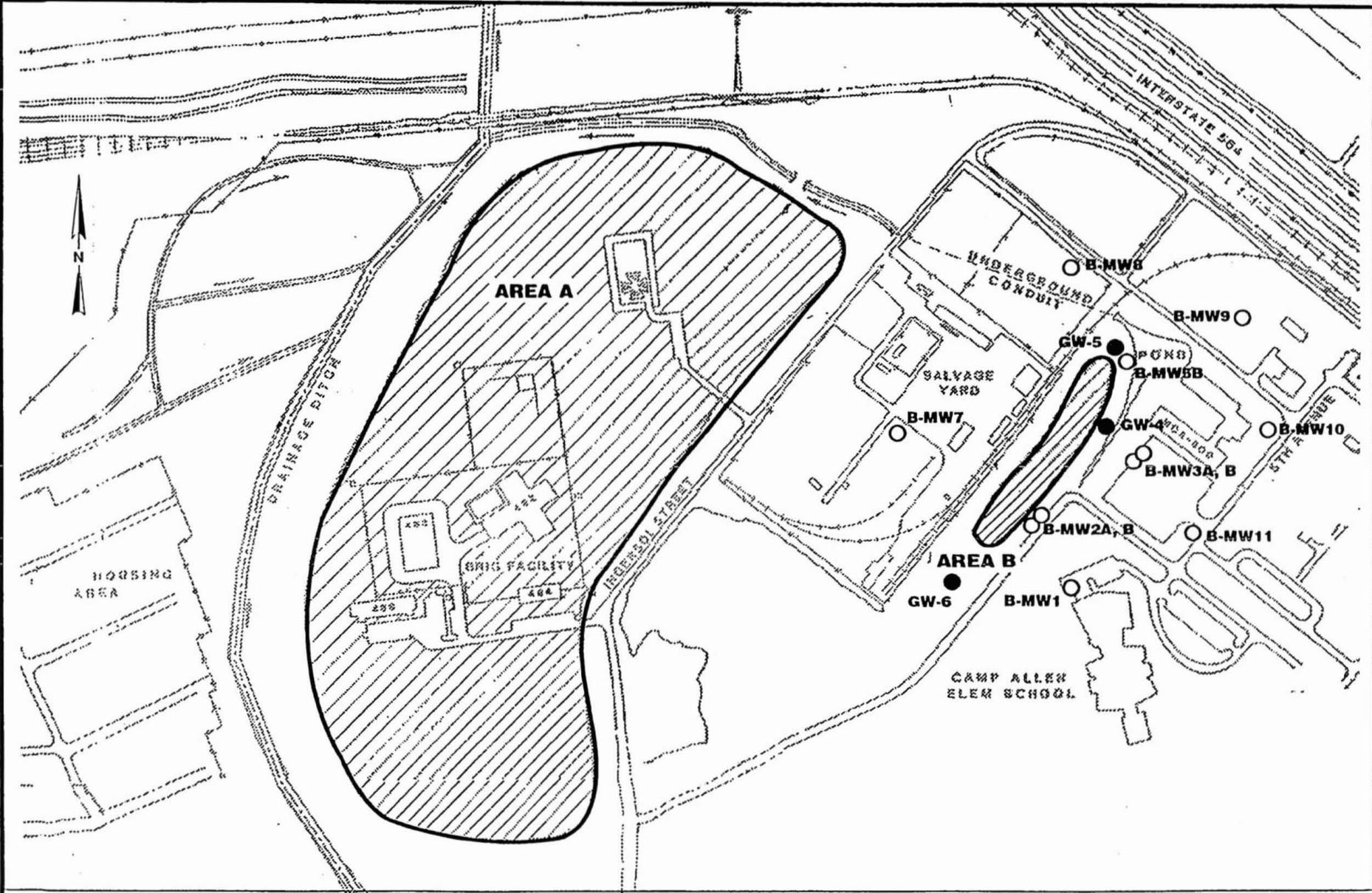
SOURCE U S G S. Quadrangle Map, Norfolk North, Virginia, 1986 revised.

0 1000 2000
 Scale in Feet



Figure 1-1 ©
 CAMP ALLEN LANDFILL, AREAS A AND B LOCATION
 Norfolk Naval Base, Norfolk Virginia





- Legend**
-  Approximate Landfill Area
 -  Proposed Monitoring Well
 -  Existing Monitoring Well

0 200 400
Scale in Feet

Figure 4-2
GROUNDWATER MONITORING WELL LOCATIONS
Camp Allen Landfill Area B
Norfolk Naval Base, Norfolk Virginia

