

Groundwater Containment at Site LF-12, Offutt AFB

Site Background

This section focuses on the groundwater containment system located at Site LF-12 at Offutt AFB. Site LF-12 is located at Landfill 4 at Offutt AFB. A site map for LF-12 is included as Figure 47.

Contaminants in Soil

- An estimated 40,000 cubic yards of refuse, waste solvents, and sewage sludge were disposed of at the Landfill 4 (LF-12) before being covered.
- Low levels of VOCs present in the soil vapor (up to 18 ppm acetone, 0.077 ppm of toluene and 0.031 ppm of xylene).

Contaminants in Groundwater

- TCE, DCE, chloroform, and bromodichloromethane was detected in groundwater at concentrations of 500 ppb, 16,000 ppb, 3.3 ppb, and 7 ppb, respectively.

Lithology

- Landfill 4 (Site LF-12) is situated on an alluvial terrace. The fill overlies a 70 to 80 feet thick alluvial deposit. A 1 to 2 foot

layer of clay lies on top of the alluvium, below the fill, which retards vertical migration of water. The alluvium rests on 5 to 10 feet of glacial till. Pennsylvania bedrock (limestone and shale) exists at 80 to 95 feet bgs.

- Depth to groundwater is 9 to 18 feet bgs.

Groundwater Containment System Details

- Hydraulic containment consists of three recovery wells (HF2C-PW1, LF4-PW3, and LF4-PW4).
- The system operates at an average groundwater flow rate 105 gpm.
- Groundwater is treated with air stripping and effluent is discharged to local POTW.

Total Capital Costs

- \$540,000 (design, labor, equipment and materials, startup).

Total O&M Costs

- O&M costs average \$20,000/year (electrical, monitoring, equipment and materials, operations).

Cost and Performance of Groundwater Containment at Site LF-12

The limited cost and performance data available for Site LF-12 at Offutt AFB is provided below:

- O&M costs average \$20,000 per year.
- The average concentration of extracted groundwater was 151 ppb of TCE.
- The volume of contaminants removed as of January 1997 was 12.81 gallons.

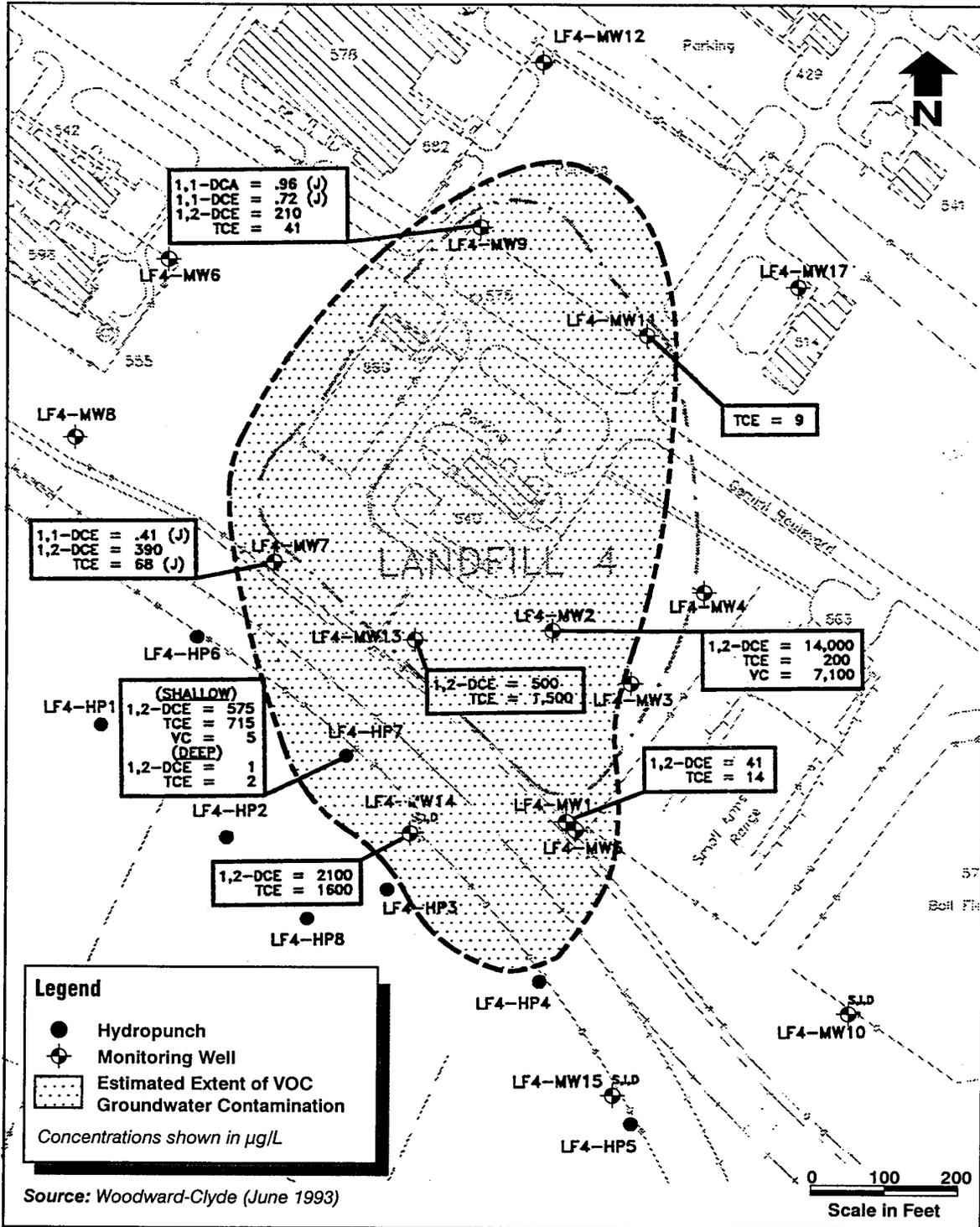


Figure 47. VOCs Detected in Groundwater at Landfill No. 4, Site LF-12, Offutt AFB

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