

# ENVIRONMENTAL FRACTURING APPLICATIONS



## FRACTURE-ENHANCED LEACHATE RECOVERY

... it is estimated that the number of recovery wells required to collect landfill leachate can be reduced from 55 to 30 or less using Frac Rite's environmental fracturing technology, the FRAC RITE™ process.

### PROBLEM

Vertical expansion of a landfill is contingent upon reducing existing leachate levels. Wells installed to date yield extremely low flow rates and zones of influence.

### OBJECTIVES

- to assess fractured well performance in saturated wastes.

### FIELD PROGRAM

Eight fractures originating from three fractured wells were created in saturated municipal wastes. A ten week long pump test was conducted on both fractured and conventional wells to compare performance. An assessment of fracturing near conventional wells was also performed. Well screens were video logged to check for evidence of biofouling.

### TECHNICAL EVALUATION

Fractured wells exceeded the performance of conventional wells by:

- an **order of magnitude** in hydraulic conductivity;
- **5 times** the flow rate;
- **2 times** the radius of influence.

**Below: Long term pump testing on fractured wells at a municipal landfill.**

