

# News of the arts

## University of Regina's geothermal project uses the earth's natural warmth to heat buildings

The University of Regina in Saskatchewan is constructing a system that would use the earth's natural warmth to heat buildings and possibly generate electricity.

Last January a 7,200-foot deep well was drilled as the first step in setting up a geothermal demonstration project, which would ultimately use hot water from an aquifer — a water-bearing layer of rock — at that depth as a source of energy. In 1980 a second well will be drilled about a half-mile from the first one and by 1982 the completed geothermal heating system is expected to be operational.

### Electricity from heat

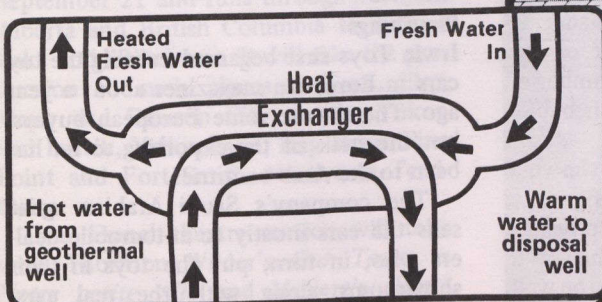
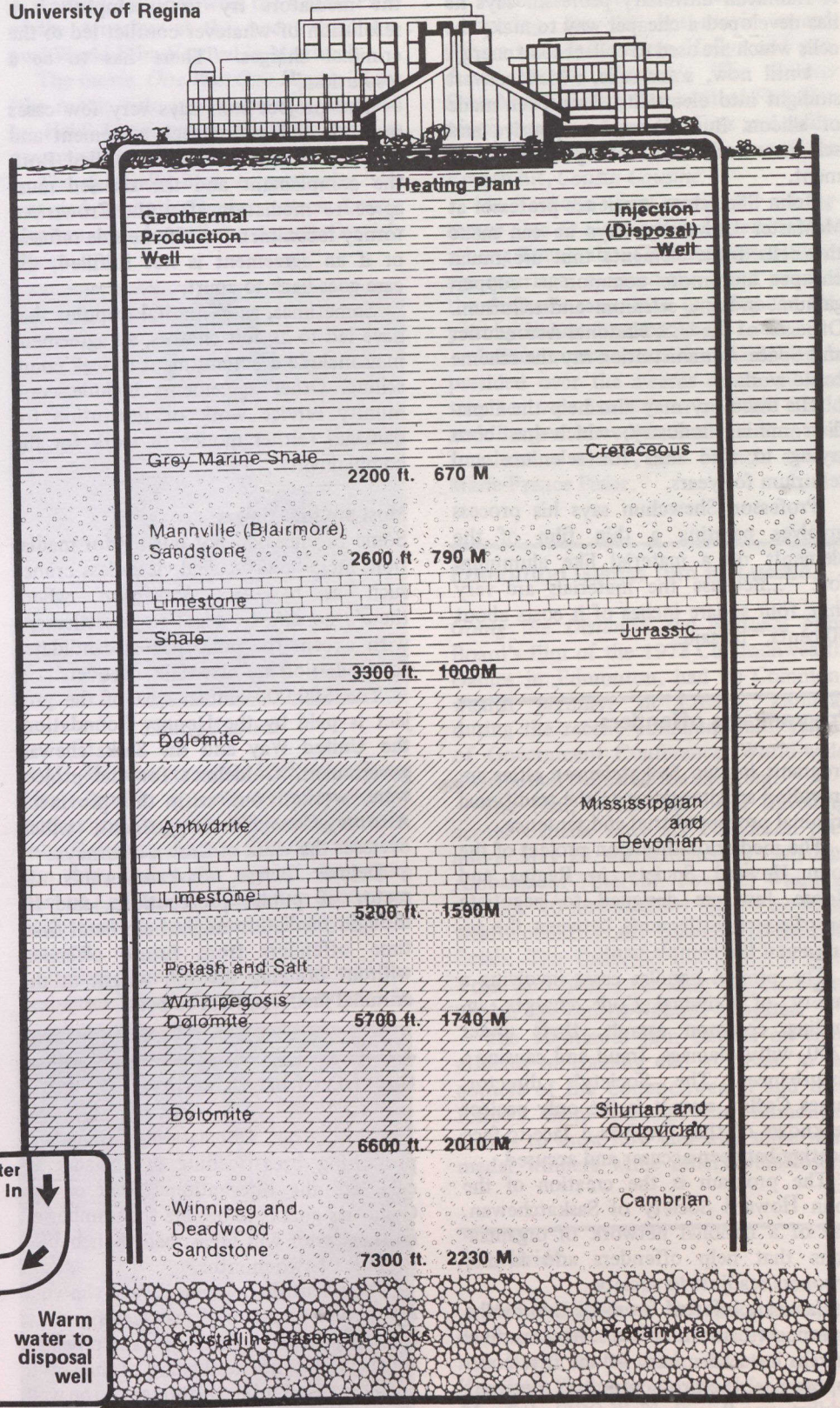
The system is designed to pump salty water at a temperature of about 160 degrees Fahrenheit (heated by the earth's natural warmth) to the surface through a heat exchanger, and down the second well. Fresh water will be circulated through the heat exchanger to pick up energy from the hot geothermal water. This fresh water may then be circulated through a standard hot water space heating system.

Heat energy from the geothermal well may also be used to produce electricity by concentrating the energy with heat pumps or by using the energy to drive low-temperature engines.

Projects such as the University of Regina's (using deep wells) exist in France and the U.S.S.R. If the university's project is successful it will be one of the first of its kind in North America. Given present heating fuel costs, it is estimated that the project could save the university up to \$800 a day and could pay for itself in ten years.

*(Courtesy of Insight dated July 1979.)*

University of Regina



*In December of 1978 a 150-foot high oil drilling rig was brought to the University of Regina. It took a crew of 15 men about six weeks to complete a 7,200 foot deep well. Drilling took place during one of the coldest months in several years.*