

Charts, diagrams show how chemicals reached water wells

By MARK SULLIVAN

BOSTON — It took them three easels and over five yards of floor space, but plaintiffs' attorneys in the *Anderson vs. W. R. Grace* leukemia trial Thursday managed to place before the jury one of their more ambitious — if cumbersome — exhibits.

What they unveiled was a 4½-by-15-foot, three-level diagram of the Aberjona River Valley in Woburn, marked to show how toxic chemicals dumped at two industrial sites in the city could have been carried in groundwater to a pair of municipal wells.

The exhibit was the largest of several accompanying the second day of testimony by the plaintiffs' star witness, Princeton University hydrogeologist Dr. George Pinder.

Pinder testified that chemical contaminants found at the two wells had, in his opinion, originated at the Cryovac plant on Washington Street and the former Riley Tannery on Salem Street.

And he described the paths that toxic chemicals from both sites would, over time, have traveled to reach the well field.

The two industrial sites are owned by two huge corporations — the Cryovac plant by W. R. Grace & Co., the former tannery by Beatrice Foods.

Anderson vs. W. R. Grace involves a claim by eight East Woburn families that chemical solvents dumped at the two

plants during the 1960's and '70's contaminated the two municipal wells, which were closed in 1979 after 15 years of use.

The contamination caused the leukemia deaths of five children and one adult and the illnesses of two other children, the families contend.

The super diagram introduced by the plaintiffs contained three cross-sections of a stretch of land running across the Aberjona valley from Grace to Beatrice property.

The first section showed the topography of the land only; the second depicted the water table, and the third showed the lowered water table which accompanies a pumping well.

The three cross-sections showed that the "general flow" of contaminants from the Grace site was "clearly toward" one of the wells, Well H, when that well was pumping, Pinder said.

He added that the chemicals could have made it to Well H even when it was not pumping.

Contaminants charted on the first cross-section were not as highly concentrated on the Beatrice side, he said.

The diagram was extra large because it had to be drawn both vertically and horizontally to scale — in this case 20 feet to one inch. Otherwise, it would have been misleading to the jury members trying to interpret it, explained Grace defense attorney Sandra Lynch.

Earlier in the trial, a graph of chemical contaminant readings

the plaintiffs had produced had been disallowed because it had not been drawn to scale both horizontally and vertically.

The midday recess yesterday was extended while Pinder reworked a computer-generated graph of chemical readings. A peak on the graph accompanying an especially high reading had gone off the page, and since the peak's level could not be seen, the graph was deemed misleading by U.S. District Court Judge Walter Jay Skinner.

In other testimony, Pinder

told the plaintiffs' chief counsel, Jan Schlichtmann, that he believed trichloroethylene, tetrachloroethylene and three other toxic chemicals found at the well field had arrived there by May 1979 from the Grace and Beatrice sites.

The Grace Cryovac plant is located some 2,400 feet from the wells, the Beatrice site, about 600 feet.

Pinder also said a small amount of contamination at the wells possibly may have come from a nearby trucking company.