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JPL will sink wells in Arroyo to test for water pollution

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LA CANADA FLINTRIDGE — Officials at the Jet Propulsion Laboratory will embark on a second round of groundwater testing in the Arroyo Seco to measure contamination from chemical dumping that occurred several decades ago.

The next series of tests probably will begin by the new year, a JPL official said. The lab will install 10 monitoring wells and conduct 30 to 40 deep soil borings in an attempt to nail down the location of contamination.

Cancer-causing chemicals first were identified in the Arroyo a decade ago. Four Pasadena water wells were closed for several years until a water cleanup plant was completed last year. JPL has investigated the pollution because, as an Army lab during the 1940s and 1950s, it frequently dumped chemicals, many of them solvents used to clean metal parts.

Last year, the lab installed five monitoring wells on its property and found four toxic compounds: trichloroethylene (TCE), perchloroethylene (PCE), carbon tetrachloride (CTC) and 1,1-dichloroethene. Each chemical exceeded California drinking-water standards in at least one of the testing wells, JPL said.

Pam Cooley, JPL environmental engineer, said the second phase of tests includes 10 additional monitoring wells installed in the eastern and southeastern areas of the lab. The wells measure, at different depths, the chemical content of the groundwater.

Deep soil borings, which reach a depth of up to 60 feet, also will be done to locate the old brick-lined cesspools where JPL disposed of waste during the 1940s and 1950s.

The second round of testing, at a cost of about \$2 million, will enable JPL to propose a cleanup

plan to the Environmental Protection Agency.

JPL, which is operated for NASA by Caltech, is not eligible for Superfund money because it sits on federal property. JPL officials said NASA eventually will foot the cleanup bill.

"We don't fully understand the problem yet, so we don't know how much it will cost to fix it," Cooley said.

Although JPL did not acknowledge direct contamination of Pasadena wells, last year it paid \$1.125 million to help build a water cleanup plant, which sits on the east bank of the Arroyo near the lab. The plant, which consists of two 55-foot-high towers, opened September 1990 and uses an evaporative process to filter out toxic chemicals. The plant cleans water from four previously closed water wells.

Bill Bangham, Pasadena manager of water systems, said water is sampled monthly before being treated at the plant. After treatment, the water is tested weekly.

"Results of the test typically show no detected chemicals," Bangham said. "They have to be low enough to meet our quality requirements, and our requirements are 40 percent or lower than state levels.

For example, the state limit — and EPA limit — of trichloroethylene is 5 parts per billion, Bangham said. Pasadena, however, requires a level of no more than 2 parts per billion.

When the four wells are in use, Bangham said they can produce 7,000 gallons per minute.

During its second testing phase, Cooley said JPL wants to keep local residents informed about the studies. For information about the program, mail inquiries to Public Services Office, Mail Stop 180-205, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, Calif., 91109; or call (818) 354-0112.