

NPL Site Narrative for Hamilton/Labree Roads Ground Water Contamination

HAMILTON/LABREE ROADS GROUND WATER CONTAMINATION Chehalis, Washington

Conditions at Proposal (May 11, 2000): In order to address the long-term threat to drinking water, the EPA is proposing this site to the NPL. The Hamilton/Labree Roads Ground Water Contamination site is located 3 miles southwest of the City of Chehalis in southwest Washington. In 1993, testing of the drinking water wells by the Washington State Department of Health (DOH) revealed that six wells in the vicinity of the intersection of Hamilton and Labree Roads were contaminated with tetrachloroethene (PCE). PCE, a suspected human carcinogen, is a chemical commonly used as a solvent in metal degreasing and cleaning operations, dry cleaning and other industrial uses. PCE levels ranged from 3 µg/L to 2,165 µg/L; reportedly the highest level found in drinking water in the State of Washington. The maximum contaminant level (MCL) for PCE in the Federal Drinking Water Regulations is 5 µg/L. The known contaminated drinking water wells are located in a shallow aquifer, approximately 40 to 60 feet below ground surface (bgs); however, wells located in a deeper aquifer, approximately 150 to 200 feet bgs, were not contaminated. Lewis County Health Department informed affected well owners of the test results and advised them to obtain alternate sources of drinking water. The Washington State Department of Ecology (Ecology), is currently supplying bottled drinking water for some of the families and businesses in the affected area. Ecology has installed a well treatment system on one residential well. Some neighbors use water from deep wells for general household uses, but drink bottled water as a safeguard.

Ecology obtained anecdotal information that indicated that drums containing solvents may have been buried or emptied in the late 1970s or early 1980s, near the center of the property northeast of the Hamilton/Labree Roads intersection. This property houses several buildings and presently is owned by S.C. Breen Construction Company. The property was occupied by a surplus store and Breen construction maintenance shop, but has recently been the location of Bulldog Trailer Manufacturing. Interviews with local residents yielded information that the surplus store acquired a variety of chemicals for which it did not have ready market and some of these items, in 55-gallon drums and smaller containers, disappeared at the same time that a large pit had been excavated on the Breen property and subsequently filled over the course of one weekend in the early 1980s.

In an attempt to locate a source of the PCE contamination in the ground water, Ecology performed a geophysical investigation in October 1996 for the property located at the intersection of Hamilton and Labree Roads. The investigation did not show any clear evidence of buried intact drums, although the results of the electromagnetic survey did show some anomalies. In September 1999, an excavation was started at one of the anomaly areas inside the Bulldog Trailer building, which is approximately 100 feet long and 50 feet wide. Within two feet below the ground, two 55-gallon drums were uncovered. The excavation was continued both towards the east and west of the building. Three layers of 55-gallon drums were found up to a depth of 10 feet. Approximately 63 drums were excavated from this location. The drums were transported off-site by the S.C. Breen Construction Company, to a RCRA Treatment, Storage, and Disposal facility on November 4, 1999.

All the drums contained a black viscous product (sludge) and water (ground water had seeped into the drums). Most of the drums were leaking at the time of removal and the leaked product was sampled. There were two distinct phases (water and sludge) and both phases were sampled. The results indicated the presence of several volatile organic compounds (VOCs), including PCE and several of this compound's degradation products including cis-1,2-dichloroethene, 1,1,1-trichloroethane, trichloroethene (TCE), and vinyl chloride. PCE contamination was also observed in residential wells that are presumably cross-gradient (Hamilton and High Reach wells 3 and 4) from the Breen property; therefore, it is possible that the contamination in these wells indicates a separate source area independent from the source area on the Breen property.

To date, Ecology has completed four quarterly sampling events (October 1997 and January, April, and July 1998), which have included collecting ground water samples from the six drinking water wells within the PCE contamination plume, along with eight monitoring wells. Additionally, Ecology sampled these wells during two semiannual sampling events in February and July 1999. Seven new monitoring wells were installed and sampled as part of the second semiannual event. Phase I and II investigations were completed in 1997, which included collecting samples from the six drinking water wells. The Washington State DOH has completed three rounds of domestic well sampling at this site (September 1993, March 1994, and June 1996).

There are a total of 252 drinking water wells screened within the shallow aquifer. The City of Napavine currently operates 3 public supply wells which serve approximately 1,256 people; all of these wells are screened in the shallow aquifer and are located within 3 to 4 miles from the intersection of Hamilton and Labree Roads.

Status (July 2000): EPA is considering various alternatives for this site.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at [ATSDR - ToxFAQs](http://www.atsdr.cdc.gov/toxfaqs/index.asp) (<http://www.atsdr.cdc.gov/toxfaqs/index.asp>) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.