The Army for many years has had proof that nerve agent was found in the area where 6,000 sheep were killed in western Utah in 1968, according to a report obtained by The Salt Lake Tribune.

The information is no surprise to the people who were first on the scene. Then-Tooele County Sheriff Bill Pitt, in recalling the frightening scene of convulsing sheep and a near-hysterical shepherd, says "We didn't know what was going on. Then we got a call that said the Army had been testing nerve gas. It put a shock in all of us."

From that first day -- March 14, 1968 -- it was apparent that a deadly nerve agent from the Army's Dugway Proving Ground in western Utah drifted off the base and killed the sheep in Skull and Rush valleys.

It never has been acknowledged by the Army, however.

But the newly found report describes the evidence of nerve agent as "incontrovertible."

"Agent VX was found to be present in snow and grass samples that were received approximately three weeks after the sheep incident," said the 1970 report by researchers at the Army's Edgewood Arsenal in Maryland.

The 1970 report acknowledges difficulty calculating how much VX the sheep were exposed to on March 14, 1968, but concluded: "... it is possible that the quantity of VX originally present was sufficient to account for the death of the sheep."

Originally stamped "confidential" and distributed to a few military libraries, the document was declassified in 1978. It apparently has not been distributed outside the military since its release. This and other follow-up reports submitted after the sheep-death controversy subsided were simply filed away. The Army never has done a detailed retrospective of the accident to finally resolve what happened.
"To the best of my knowledge, this is the first documented admission" that VX killed the sheep, says Steve Erickson, spokesman for a military watchdog group known as the Downwinders. "It's not news in the sense that everyone knows the Army did it."

The closest the military has came to an official admission was a press release issued by the U.S. Department of Defense on April 18, 1968. It conceded that evidence collected in the month after the incident "points to the Army's involvement in the death of the sheep." But the statement said too many unanswered questions remained to conclusively place blame.

That remains the Army's position today. Col. John Como, commander of Dugway Proving Ground, this week issued the following statement:

"The Army did not, and still doesn't, accept responsibility for the sheep deaths in Skull Valley. There has been a lot of conjecture, but extensive efforts by Utah State and Department of Agriculture scientists never identified the precise causal chain that led to the deaths of the sheep.

"The Army's own investigation revealed that an open-air test of a lethal chemical agent at Dugway on 13 March 1968 MAY HAVE [his emphasis] contributed to the deaths of the sheep. The Army's investigation, as well as the investigations by all the other government bodies involved, concluded the Dugway personnel were not negligent in the test in question. As a result of this incident, a special committee chaired by the Surgeon General of the United States reviewed the test procedures at Dugway, and the Army adopted subsequently new controls on open air testing," wrote Como.

VX is a nerve agent so powerful that a single drop on the skin can result in death within about 15 minutes. It works by disrupting the nervous system and causing breathing to stop. VX has a thick, oil-like consistency that allows it to be sprayed on plants prior to enemy troops marching through an area. It remains toxic for at least several days.

GB is the other common form of nerve agent. It vaporizes quickly when exposed to air forming a deadly gas. GB dissipates rapidly.

The 1970 report confirming the presence of VX adds another piece to the mountain of evidence that nerve agent killed the sheep.

The Army's initial investigation into the sheep deaths, a more than 1,000-page document released in 1968 by Brig. Gen. William W. Stone, hinted that nerve agent may have been found in the area. It said scientists had isolated probable "traces" of a "nerve agent or similar organic compound" in environmental samples collected where the sheep died.

Stone's investigation also disclosed that a chemical found in the blood, stomach and liver of the dead sheep was "related to nerve gas samples" from Dugway. Experts questioned whether there was enough to kill the animals, however.

And a 1972 report, also produced by the Edgewood Arsenal, found that laboratory sheep fed grass contaminated with VX showed exactly the same symptoms
Sheep fed grass contaminated with several common insecticides exhibited different symptoms, said the Edgewood report. This refuted military suggestions soon after the incident that insecticides might have caused the Utah deaths.

Although the Army never accepted responsibility for the sheep deaths, the government later compensated ranchers for their lost animals. Worldwide publicity about the incident contributed to then-President Nixon's decision to ban all open-air testing of chemical weapons in 1969.

Federal officials four years ago launched a program to find and test the sheep burial sites to determine whether any hazardous substances remain hidden beneath the surface. Testing of recently discovered burial pits on the Skull Valley Band of Goshute reservation is scheduled to begin within the next few months.

Danny Quintana, attorney for the Skull Valley Band of Goshute, says a detailed re-analysis of the 1968 sheep deaths may shed new light on the long-term environmental and physiological consequences of chemical weapons.

Tribal leaders note that several older persons living on the reservation died soon after the sheep incident. "They think it was related to this, but we are never going to be able to prove it," says Quintana.

Careful study of the Dugway incident also could help unravel questions about health problems reported by Gulf War veterans who believe they were exposed to nerve agents, adds the attorney, and help the nation be better prepared for possible chemical weapon attacks by terrorists.

"The best way to do it is learn what happened with the sheep," Quintana says.

The Dugway sheep incident is loaded with symbolic value in Utah. It is brought up regularly at public hearings as one of two reasons Utahns distrust the Army and -- to a lesser degree -- all other federal agencies. The other frequently cited cause of distrust is federal lies about the safety of open-air nuclear weapon testing at the Nevada Test Site in the 1950s and 1960s that sent clouds of radioactive fallout drifting into Utah.

The Stone investigation shows that on March 13, 1968 -- the day before the sheep died -- Dugway employees conducted three activities with nerve agents. One was a test of a single artillery shell filled with a chemical agent, and another was the disposal of about 160 gallons of nerve agent in an open burn pit.

The sheep deaths usually are linked to the third activity -- a test in which a low-flying jet fighter sprayed nerve agent in a barren target area about 27 miles west of Skull Valley. Later reports indicated one of the tanks malfunctioned and some of the nerve agent continued to be sprayed as the jet finished its run and began climbing high into the sky.

Dugway's meteorological reports indicated the wind was blowing out of the northwest at the time of the test, but later shifted to the west as a small storm front passed. These west winds could have carried nerve agent directly
over the sheep herds.

"There were scattered cumulus clouds in the general area at the time of the test and scattered rain showers developed during the evening," said the Defense Department's 1968 press release. "One of these rain showers could have washed this airborne agent out of the air and deposited it on vegetation and the ground."

Sheep are believed to have been hit hardest by nerve agent because they were eating contaminated grass and snow. Sheep are one of the few domestic animals that can get enough water from snow to survive. A few dead birds and rabbits also were found.

Shepherds and other people in the area were examined by doctors, but military experts reported no indication of illness related to nerve agents. At least one Skull Valley rancher who ate snow during this period has complained of chronic health problems since the incident.

GRAPHIC: The Salt Lake Tribune Graphic: Sheep Deaths

Jump Page A13: Courtesy of the Bureau of Indian Affairs

Dead sheep are buried in Utah's Skull Valley in 1968. A newly found report shows Army nerve agent was found at the site.

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