LOS ANGELES – An alternative technology for removing solvents from groundwater has shrunk a solvent plume beneath the Nebo portion of the Barstow Marine Corps Logistics Base (MCLB) to a fraction of its original size. The plume is no longer migrating past the base boundary and threatening drinking water supplies, reports the DTSC cleanup oversight team.

Conventional technologies pump contaminated groundwater directly out of the ground and into a treatment unit. This expensive process can take decades to complete a groundwater cleanup. Air sparging/soil vapor extraction (AS/SVE) is an alternative technology that injects air into solvent contaminated groundwater and extracts the contaminated air from the groundwater. The solvents are safely trapped by the treatment equipment.

The US Environmental Protection Agency, DTSC, the Lahontan Regional Water Quality Control Board, and MCLB Barstow previously signed a Record of Decision in 1998 for a groundwater remedy that used a conventional “pump and treat” technology. Subsequent pilot testing of an AS/SVE system demonstrated that the groundwater contamination plume could be more effectively removed for less costs and in a shorter duration than the selected remedy. The system effectively stopped further movement of the plume past MCLB Barstow’s boundaries.

“We are pleased when alternate environmental cleanup technologies protect public health and environment by reducing time and costs and removing contaminants from the environment where it poses harm,” said DTSC Director Maureen Gorsen.

MCLB Barstow was established in 1942 at the Nebo main base as a staging area for supplies and equipment for Marine Corps forces deployed in the Pacific during World War II. Operations at MCLB Barstow included maintaining, issuing, and shipping materials, which generated industrial waste such as fuels, solvents, waste oil, and grease. In November 1989, the base was placed on the federal Superfund National Priority List due to presence of soil and groundwater contamination. The following year MCLB Barstow entered into a Federal Facilities Agreement with the US Environmental Protection Agency, DTSC, and the Lahontan Water Board that governs the base’s environmental cleanup activities.

To document the revised cleanup remedy for the groundwater plume at the Nebo area, DTSC signed a new Record of Decision with the US Environmental Protection Agency, Lahontan Water Board, and MCLB Barstow in October 2006.