Dig that crazy bone!

By Public Affairs Office

October 2, 2002

Los Alamos scientists recently unearthed the fossilized remains of a leg bone from an extinct bison species while assessing Department of Energy land scheduled for transfer to Los Alamos County and San Ildefonso Pueblo. The photo shows the fossil bone (below) as compared to a contemporary bison bone. *Photo courtesy of Gary Morgan, New Mexico Museum of Natural History*

Fossil bison bone found during archaeological excavation

An archaeological assessment of Department of Energy land scheduled for transfer to Los Alamos County and San Ildefonso Pueblo yielded an unexpected discovery: the fossilized leg bone of a long-extinct species of bison.

Lab archaeologist Bradley Vierra of Ecology (RRES-ECO) and geologist Steven Reneau of Hydrology, Geology and Geochemistry (EES-6) recently were assessing the composition and layout of rock and sediment layers on a parcel of land scheduled for transfer near White Rock when they unearthed the bone, which was situated beneath the El Cajete Pumice layer and is estimated to be about 50,000 years old. The age of the specimen makes it among the oldest bison fossils discovered in New Mexico.

The specimen, comprised of about two dozen fragments, is the left distal humerus of an extinct species of bison, known as Bison antiquus. The fossilized bone is roughly the same size as what would come from present-day bison. Vierra and Reneau turned the fossils over to the New Mexico Museum of Natural History for

identification, curation, cataloguing and photographing by Gary Morgan, curator of Paleontology at the museum.

"It is always very exciting and gratifying to make a discovery such as this," said Vierra. "It also points out the importance of the assessment work that's being done in accordance with the DOE land transfer."

DOE is transferring 10 tracts of land to Los Alamos County and San Ildefonso Pueblo under Public Law 105-119. Under that law, DOE had to identify parcels of land that were no longer considered necessary to the Laboratory's mission. The department identified the 10 parcels, amounting to about 4,000 acres, for transfer. The transferred land is intended for use in community self-sufficiency; economic diversification; or historical, cultural or environmental preservation purposes.

Because the transfer parcels are located on the Pajarito Plateau — an area rich in archaeological sites representing 10,000 years of human occupation — they contain nearly 200 sites that are eligible or potentially eligible for listing on the National Register of Historic Places. Because lands slated for transfer to Los Alamos County will lose federal protection once the transfer is complete, the Laboratory is required by law to prepare a cultural resources mitigation action plan as well as a cultural preservation agreement between the federal Advisory Council on Historic Preservation, New Mexico's Historic Preservation Officer and Los Alamos County.
