DISCUSSION

The Elko crater field consists of two arrays of rimmed craters in the valleys of Dayton Creek, 50 km north of Elko, Nevada. In the principal array, over 100 craters are scattered irregularly in an area 3 km wide and 20 km long. Most of the craters are circular, but some, formed by overlying, are oval or irregular. They range from 150 m to 250 m in diameter and the relief of the largest ones, from the surrounding floor of the crater to the top of the rim, is at least 5 m. The pluvial material of the craters is probably the result of secondary craters forming a terrace. The surface material outside the craters is primarily silt, probably blown in by the wind, and pebbles, apparently washed in from the rims. There is also a layer of volcanic ash at a depth of about 1 m. This ash was identified as the physical and mineralogical composition of the Wapiti ash by R. K. Wilson and others, 1975, and a 4000-year-old ash bed is present in the alluvium of Dayton and Soda Creeks. The craters are presently interpreted as having been formed by a meteor shower although no meteor material has been discovered. Investigations are continuing.

REFERENCE


MAP SHOWING THE ELKO CRATER FIELD, ELKO COUNTY, NEVADA

By

Keith B. Ketner and David J. Roddy

1980

CORRELATION OF MAP UNITS

Quaternary

Tertiary

DESCRIPTION OF MAP UNITS


ALLUVIUM (QUaternary)—Gravel, sand, and silt along modern intermittent streams. Includes volcanic ash and correlated with Wapiti ash, about 4000 years old.

OLOVISOL ALLOVUSOL AND COLLUSION (QUaternary)—Gravel, sand, and silt on slopes and terraces. Includes tuffaceous sand and cobbles, especially west of Soda Creek, late Tertiary in age.


CRATER—Quadrant where identification is uncertain.