PROPERTY NAME: Horseshoe Basin Diatomite

MINERAL COMMODITY(IES): Diatomite

TYPE OF DEPOSIT: Fresh-water, lacustrine

ACCESSIBILITY: Haul road to property

OWNERSHIP: Controlled by Eagle Picher Industries, Inc.

PRODUCTION: Large past production

HISTORY:

DEVELOPMENT: Curved pit following contour for strike length of 1.2 miles, averaging about 400 feet wide with pit face on west averaging about 60 feet high.

ACTIVITY AT TIME OF EXAMINATION: Semi-active mine.

GEOLOGY: Diatomite units of Miocene or Pliocene age are exposed continuously in the face of the long, approximately north-south, open pit. The beds dip 5 to 10°W. The stratigraphic sequence in this area consists from bottom to top of: a) A gray unbedded footwall ash with some thin interbeds of diatomite; b) a lower diatomite unit about 20 feet thick; c) ash, grit and clayey diatomite unit 1.5 to 3.1 foot thick; d) a middle diatomite unit about 30 feet thick; e) an ash unit about 15 feet thick; f) an upper diatomite unit 15 to 25 feet thick, commonly with undulatory upper surface; and g) an overlying pyroclastic rock that caps the ridge above and west of the pit.

Except for the undulations, all contacts are sharp and fairly regular. A few high-angle faults with offsets of about 3 feet cut the sedimentary rocks. The diatomite is indistinctly banded between bedding planes 6 inches to 4 feet apart. Most of the diatomite is white; very locally thin podlike areas are slightly iron-stained. The diatomite is of good quality; Melosira are the principal type present. Sample 002728 is diatomite.

REFERENCES:

EXAMINER: Keith G. Papke

DATE VISITED: 10/11/84