

2007 GSA Denver Annual Meeting (28–31 October 2007)

Paper No. 115-11

Presentation Time: 1:30 PM-5:30 PM

MUD LAKE: NO EVIDENCE OF METEORITE IMPACT NEAR NEDERLAND, COLORADO

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Mud Lake is a 400-foot-wide circular depression containing a small lake located approximately one-mile north of Nederland, Colorado. The depression lies in the schistose and gneissic rocks of the 1.7 billion-year-old Idaho Springs formation. The absence of glacial and evaporite deposits in the surrounding area as well as the lake's unique location on a topographic high between two streams, prompted W. Bradley to suggest in a local newspaper (1999) that the lake might be a meteorite impact crater. However, large-scale mining operations occurred in the Nederland area and small exploratory pits and waste piles are located around the lake which suggests a possible human origin. In April of 2001 a drilling operation, funded by the Town of Nederland in conjunction with the Colorado Geological Survey, sank three cores into the lake bottom and underlying crystalline bedrock with the objective of locating evidence of meteorite impact. Shocked quartz, impact glasses, or meteoritic debris were not located within the cores or surrounding the lake. The bedrock "rim" around the lake is not deformed. Furthermore, the bottom of the lake is irregular and piles of rock fragments found on the lake bottom are likely submerged mine tailings. The lack of evidence for meteorite impact and presence of mine workings strongly suggest that Mud Lake has an anthropomorphic origin.

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[General Information for this Meeting](#)

Session No. 115--Booth# 93

[Impact Craters and Events: From the Field to the Laboratory \(Posters\)](#)

Colorado Convention Center: Exhibit Hall E/F

1:30 PM-5:30 PM, Monday, 29 October 2007

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