

Clues to one of Earth's oldest craters revealed

13 November 2014



Clouds over Australia are shown. Credit: NASA

The Sudbury Basin located in Ontario, Canada is one of the largest known impact craters on Earth, as well as one of the oldest due to its formation more than 1.8 billion years ago.

Researchers who took samples from the site and subjected them to a detailed [geochemical analysis](#) say that a [comet](#) may have hit the area to create the crater.

"Our analysis revealed a chondritic platinum group element signature within the [crater](#)'s fallback deposits; however, the distribution of these elements within the impact structure and other constraints suggest that the impactor was a comet. Thus, it seems that a comet with a chondritic refractory component may have created the world-famous Sudbury basin," said Joe Petrus, lead author of the *Terra Nova* paper.

More information: [DOI: 10.1111/ter.12125](https://doi.org/10.1111/ter.12125)

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