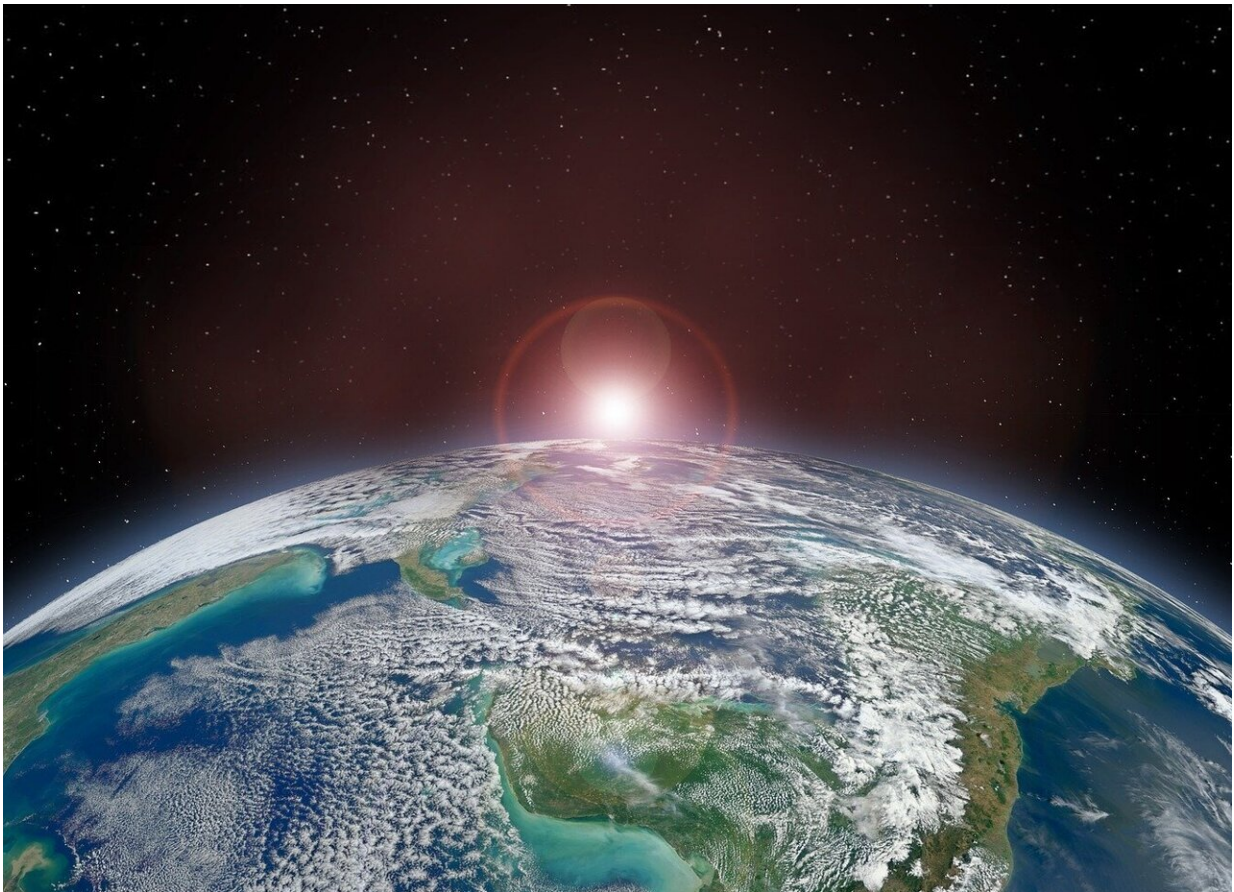


Clues to one of Earth's oldest craters revealed

November 13 2014



Credit: Pixabay/CC0 Public Domain

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: Joseph A. Petrus et al, On the track of the elusive Sudbury impact: geochemical evidence for a chondrite or comet bolide, *Terra Nova* (2014). [DOI: 10.1111/ter.12125](https://doi.org/10.1111/ter.12125)

Provided by Wiley

Citation: Clues to one of Earth's oldest craters revealed (2014, November 13) retrieved 28 April 2024 from <https://phys.org/news/2014-11-clues-earth-oldest-craters-revealed.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--