

## **Abstract**

This thesis provides an overview about the tar sands exploitation in the province of Alberta, Canada and environmental impacts related to their exploitation. Canadian's tar sands deposits represent the 3<sup>rd</sup> largest crude oil reserve in the world. The economically recoverable reserves were estimated to 168, 7 billion barrels. The introductory part of the thesis explains process of oil formation, including a theory about the tar sands deposits formation. The main part of the thesis describes four most significant tar sands deposits in the Alberta province which differ in physical-chemical properties of extracted crude oil (eg. specific gravity) but also in geology of their deposits. Differences in geological setting require individual approach to extraction of particular deposits. The most common exploitation methods are described. Among them, the surface mining results are the most apparent exploitation impact on a landscape and therefore the major environmental problems are presented through it.