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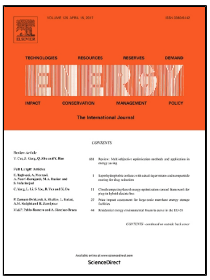

Development of Life Cycle Water Footprints for Oil Sands-based Transportation Fuel Production

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Research Highlights

- The life cycle water footprint for oil sands-based transportation fuel was studied.
- Water footprints for bitumen extraction, upgrading, and refining were developed.
- The water consumption coefficients for the complete life cycle of oil sands ranges from 2.08-4.19 bbl/bbl refined oil.
- Surface mining has a higher water consumption coefficient than steam-assisted gravity drainage.