

Greenhouse and air emission inventories



We provide comprehensive support to help clients meet annual reporting obligations or complete environmental assessments.

At Trinity Consultants Australia, our practical experience in emissions measurement across a wide range of sectors makes us a standout in this area.

We offer a realistic approach to assessments that leverages our extensive knowledge and library of published data far beyond the default inventory guidelines. We are also adept at engineering calculations where emissions factors are not available.

We provide outputs in professional user-friendly spreadsheets and software interfaces customised to site. We also have strong experience with specialist Australian software such as FullCAM.

Our capabilities

NGER and decarbonisation

- National Greenhouse and Energy Reporting (NGER) Scheme annual inventories and reporting
- Safeguard Mechanism annual inventories and reporting
- FullCAM vegetation emission and sink modelling
- Abatement measure effectiveness
- Decarbonisation plans

NPI reporting

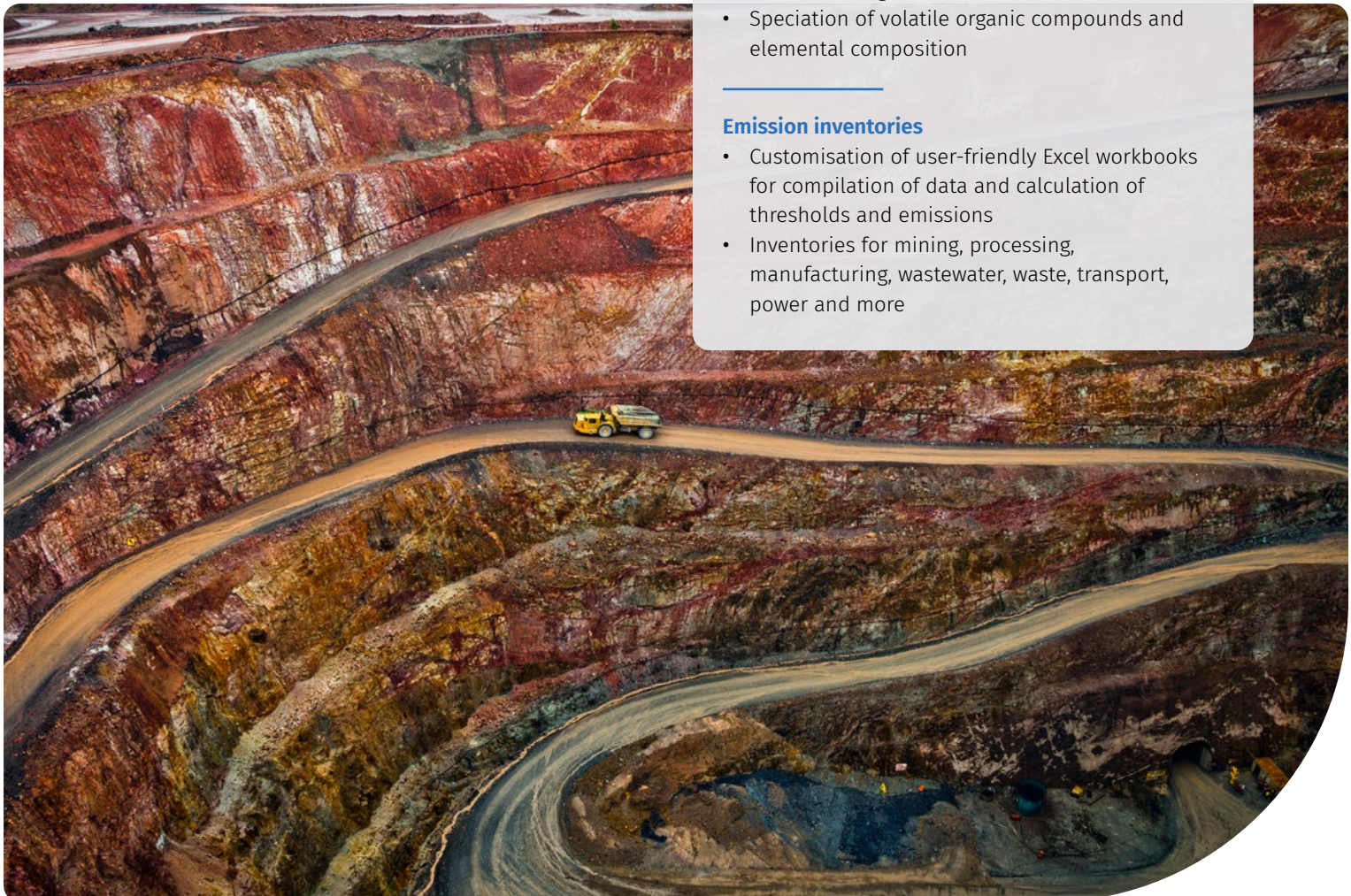
- National Pollutant Inventory (NPI) annual inventories and reporting
- Calculation of thresholds and emissions to air, water and land

Emission modelling

- Engineering calculations and use of specialised software for sewerage systems, organic storage tanks, landfills, mineral processing and manufacturing
- Speciation of volatile organic compounds and elemental composition

Emission inventories

- Customisation of user-friendly Excel workbooks for compilation of data and calculation of thresholds and emissions
- Inventories for mining, processing, manufacturing, wastewater, waste, transport, power and more

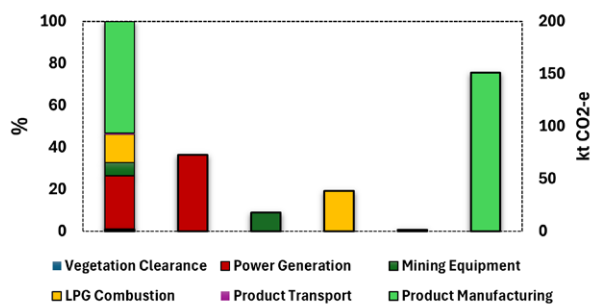




Our projects*

- **Multicom Resources**, St Elmo Vanadium project – detailed greenhouse gas inventories and carbon footprint. Analysis of scope 1, 2 and 3 transport emissions with 4 scenarios of abatement measures including reaching carbon neutrality.
- **Wonbindi Coal**, Baralaba South Coal Mine – assessment of greenhouse gas emissions. Detailed greenhouse gas inventory of scope 1, 2 and 3 emissions from mining and use of coking coal. Assessment particulate and greenhouse impacts.
- **AustralAsian Resource Consultants**, Lake Vermont Coal Mine extension – greenhouse emission impact assessment for a proposed extension to a coal mine to the north-east of Dysart in central Queensland, based on an inventory including method 2 fugitive methane releases.
- **Aquis**, 337 ha resort development, Qld – assessment of impacts of baseline farming and bagasse firing, clearing, operation and associated tourist travel.

GHG Emissions from a Typical Metalliferous Mine for One Year Period



Example graphic output

- **Exco Resources**, Kangaroo Rat Gold and Copper Mine – greenhouse gas emission inventory of mine and discussion of implications. Assessment of air quality impacts.
- **Cockatoo Coal** – new workbooks to calculate emissions for reporting to NGER at all operations. Documentation of derivation, transparent for ease of updating, validation of calculations and user-friendly input screens for on-site use.
- **Valeria Coal Mine** (with Epic Environmental) – air quality, greenhouse gas and climate change assessment.
- **Lake Vermont Coal Mine** (with AARC) – greenhouse impact assessment of mine extension.
- **Townsville Airport** – air emissions inventory and NPI reporting calculations.
- **Alice Springs Airport** – air emissions inventory and greenhouse gas inventory.
- **Mt Isa Airport** – air emissions inventory and NPI reporting calculation.
- **Townsville Ocean Terminal project** – greenhouse gas emissions inventory and projections, including determination of offsets.
- **Coal mines (various)**, Qld – annual NPI reporting for an extensive number of coal mines.
- **Proposed concrete batching plant**, NSW – greenhouse gas emissions inventory and calculations.
- **Proposed gold mine** – greenhouse gas emissions inventory.

*Projects completed by Trinity Consultants Australia and its acquired companies, ASK Consulting and Air Noise Environment.

Contact us

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Get to know our work
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