APPENDIX Q

Finniss Lithium Operation – Greenhouse Gas Assessment Summary Report (Greenbase, 2026)

FINNISS LITHIUM OPERATION

GREENHOUSE GAS ASSESSMENT SUMMARY REPORT

Version 1.4

Prepared by **Greenbase Pty Ltd**

On behalf of **Core Lithium Ltd**

Prepared March 2026

Project Task ID: 57165

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Rounding of Amounts

All CO_2-e amounts included in this document have been rounded to the nearest Tonne except when rounding would result in a zero.

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Table 1 Document History

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Summary

Core Lithium Ltd (ASX:CXO) is the proponent for the Finniss Lithium Operation (Finniss) located in the Cox Peninsula, Northern Territory, approximately 23km south of Darwin and 33km west of Berry Springs.

The proposed Finniss Project is currently in care and maintenance. The Project encompasses two pre-existing facilities: an open pit mine (Grants), and an underground mine (BP33). Core Lithium proposes a Project restart, which will include the mining and on-site processing of lithium ore, onsite energy production, and road transport of lithium concentrate by road train via Cox Peninsula Road to Darwin port for export.

The proposed Life of Mine (LOM) is approximately 10-12 years, covering approximately 12-18 months of open pit mining at Grants, with the remainder being ongoing construction at both facilities, and underground mining at BP33. Once mining is completed at the Grants pit, the Grants site will be used to house the plant and equipment required to process ore from BP33.

This greenhouse gas (GHG) assessment has been prepared as part of a referral to the NT EPA which seeks variations to existing environmental approvals. Variations are in relation to the proposed depth of BP33 (increasing from 320 metres to 850 metres), and a subsequent increase of 3-4 years to the initially proposed LOM.

The primary sources of Scope 1 GHG emissions identified for Finniss are from electricity production and mining activities. The total estimated Scope 1 GHG emissions over the LOM are 1,508,369 tCO_2-e. The average Scope 1 emissions are estimated to be 125,697 tCO_2-e/year during operational phases.

Scope 2 emissions are not included as the Finniss Project will not be connected to the NT grid and will not involve electricity purchases. Therefore Scope 2 emissions will be zero.

Scope 3 emissions were examined in this assessment with key emission sources identified as purchased goods and services, capital goods, fuel and energy related activities, upstream transportation, employee commuting and processing of sold products. Total estimated Scope 3 emissions for these sources over LOM are estimated at 3,015,261 tCO_2-e, with average Scope 3 emissions during full production estimated at 277,011 tCO_2-e/year.

Overall, Scope 1 GHG emissions of the Finniss are estimated to contribute 0.6% to the Northern Territory's annual emissions and 0.03% to Australia's annual emissions.

With reference to the Safeguard Rule (2015), the GHG emission intensity for the Project was estimated as 0.047 tCO_2-e/tonnes ore processed based on Scope 1 GHG emissions for mining activities and the forecasted ore estimates. The overall emissions intensity of the project is estimated as 7.18 tCO_2-e/tonnes concentrate processed.

1 Introduction

1.1 Background

Core Lithium (CXO) is proposing to continue developing the Finniss Lithium Project, located in the Northern Territory.

This greenhouse gas (GHG) assessment has been prepared for Core Lithium as part of a referral to the Northern Territory EPA to amend existing environmental approvals, with the broad aim of extending the depth of BP33 and extending the duration of mining activities.

The estimated GHG emissions from Finniss have been calculated in this assessment, and the likely contribution to state and national emissions estimated.

A summary of the Project details is outlined in Table 2.

Table 2 Project Summary Table

Project Name	Finniss Lithium Operation (Finniss)
Proponent Name	Core Lithium (CXO)
Relevant Environmental Documents	Ministerial Approval BP33 (2022) Statement of Reasons Grants (2020) Assessment Report 89 Grants (2019) Assessment Report 94 BP33 (2022)
Key Environmental factor and objective	Factor: Greenhouse Gas Emissions (Atmospheric Processes) EPA Environmental Objective: Minimise greenhouse gas emissions, contributing to the NT Government's goal of achieving net zero greenhouse gas emissions by 2050. (NT Government, 2024).
Proposed commencement date of the Project	2026

1.2 Finniss Lithium Operation

The Finniss Lithium Project is located approximately 25 km south of Darwin (90 km by road). Its core operations consist of two adjacent sites; the Grants open pit mine and the BP33 underground mine, which are part of a broader area including other prospective lithium deposits (Figure 1).

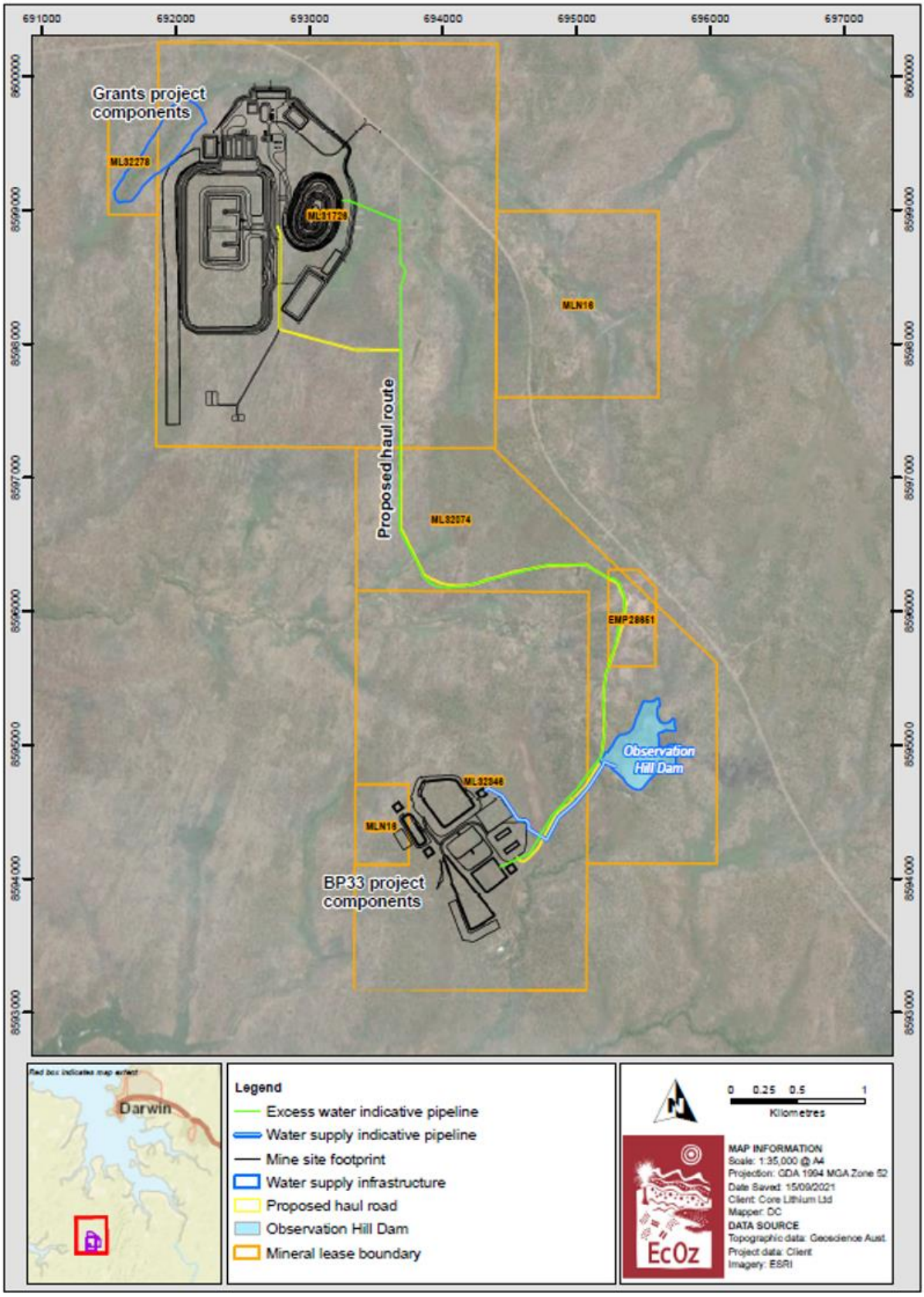

Figure 1: Finniss Operation Project Location

1.3 Australian GHG Landscape

To manage Australia's contribution to global GHG emissions, several frameworks, agreements and policies have recently been put in place. The history and key points of these strategies, which underpin the basis of Australian GHG reporting, are discussed below.

The United Nations Framework Convention on Climate Change (UNFCCC) came into force in 1994 with the aim of stabilising GHG concentrations and preventing dangerous human interference with the climate system (UNFCCC, 2023). Australia, along with over 190 other countries, is a member of this Convention and submits regular reports detailing its annual and quarterly emissions, progress towards targets, projections, and mitigation actions to fulfill its reporting obligations to the UNFCCC. Australia is also a signatory to the Kyoto Protocol, ratified in December 2007, and the Paris Agreement, ratified in November 2016.

The National Greenhouse and Energy Reporting (NGER) scheme, established by the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), is Australia's national framework under which companies are required to report their GHG emissions and energy consumption and production. The objectives of the NGER scheme include informing government policy and helping to meet Australia's international reporting obligations.

In October 2021, Australia set a national net-zero target, while in June 2022 Australia committed to reducing GHG emissions to 43% below 2005 levels by 2030. Alongside these commitments, each state and territory has set their own net-zero target.

To further align with national and state goals of reducing and managing GHG emissions, the Northern Territory Government is guided by the *Northern Territory Climate Change Response: Towards 2050* (Northern Territory Government, 2024). This document informs environmental impact assessment (EIA) processes. The Environment Protection Authority (EPA) provides further guidance via the *Environmental factor guidance: Atmospheric processes* (EPA, 2025). Projects with significant GHG emissions should demonstrate consideration of Territory emissions reduction goals, as outlined in these documents.

Under the *Environment Protection Act 2019* (EP Act), a proponent must refer a proposal to the Northern Territory Environment Protection Authority (NT EPA) if it has the potential for a significant impact on the environment. For the Environmental Factor of Atmospheric Processes, this may be determined by the level of GHG emissions. Specifically, a proponent should consider referring a proposal if its estimated Scope 1 emissions exceed 100,000 tCO2-e in any financial year.

Following a referral, the NT EPA decides whether a full environmental impact assessment (EIA) is required. If a proposal undergoes EIA, it must receive an environmental approval from the Minister before it can proceed. The *Northern Territory Climate Change Response: Towards 2050* (Northern Territory Government, 2024) and the EPA's *Environmental factor guidance: Atmospheric processes* (EPA, 2025) inform this assessment process, outlining how projects should demonstrate consideration of the Territory's emissions reduction goals.

1.4 Applicable Environmental Factors

The EPA has identified greenhouse gas emissions as one of the key environmental factors that may be impacted by the proposal. The objective of the greenhouse gas emissions environmental factors is '*to reduce net greenhouse gas emissions in order to minimise the risk of environmental harm associated with climate change'*.

According to the *Environmental Factor Guidance: Atmospheric Processes* (NT EPA, 2025), GHG emissions from a proposal will be considered where they are reasonably likely to exceed one of the following thresholds, (or are below but close to one of the thresholds) (section 53(1) of the EP Act):

- For an industrial proposal: 100,000 tCO_2-e of scope 1 emissions in any financial year over the life cycle of a proposal, or
- For a land use proposal: 500,000 tCO_2-e (scope 1) generated from a single clearing action, or cumulatively from multiple land clearing actions on a property over time.

The GHGs included in the *Environmental Factor Guidance* are covered by the UNFCCC's Reporting Guidelines on Annual Inventories and are listed below:

- Carbon dioxide (CO_2),
- Methane (CH_4),
- Nitrous oxide (N_2O),
- Sulphur hexafluoride (SF_6),
- Hydro fluorocarbons (HFCs),
- Perfluorocarbons (PFCs), and
- Nitrogen Trifluoride (NF3)

The main GHG emissions associated with the Finniss Project are CO_2, CH_4 and N_2O.

2 GHG Inventory

2.1 Project Activities

The key infrastructure and principal activities to be undertaken by the Project have been identified and outlined below:

Facilities:

- Grants: Open-pit mining for approximately 12-18 months, transitioning to a long-term processing hub.
- BP33: Underground mining with a life of approximately 12 years.

Processing Plant (at Grants Site):

- Crushing, Dense Media Separation (DMS), and Wet High Intensity Magnetic Separation (WHIMS) circuits.
- Usage of processing reagents; ferrosilicon, sodium nitrate, flocculants and coagulants.

Waste Management and Transfer System:

- Utilisation of tailings storage facilities (TSF), and waste rock dumps (WRD).
- Pipeline to transfer mine-affected water from BP33 to Grants.
- Slurry pipeline and pumping infrastructure to transfer tailings/slimes from Grants to BP33 for paste plant feed.
- Paste plant and a supporting concrete batching plant at the BP33 site.

Support & Logistics:

- On-site diesel power generators at both sites.
- Pumping infrastructure for facility dewatering.
- Cooling plant/ventilation fans for BP33.
- Internal haulage routes for transport between the Grants and BP33 sites.
- Trucking route for concentrate transport to Darwin Port for export, and
- Other ancillary activities.

Waste Reuse & Geotechnical Support:

- Converting processing rejects, slimes, and tailings into paste backfill.
- Pumping paste and using waste rock to backfill underground voids at BP33 for structural stability.

Material Movement:

- Hauling ore from BP33 to the Grants processing hub.
- Transferring tailings and water between sites.
- Transporting final spodumene concentrate product by truck to the Darwin Port.

2.2 GHG Emissions Sources

GHG emissions can include both *direct* and *indirect* emissions, i.e. Scope 1, Scope 2 and Scope 3 emissions. Identified emission sources from the Project are discussed below.

2.2.1 Scope 1 GHG Emissions

Scope 1 GHG emissions are *direct* emissions from sources within the boundary of the facility or organisation, e.g. fuel combusted on site.

The significant sources of Scope 1 GHG emissions resulting from the activities identified from the Project are as follows:

- Diesel consumption by diesel generator power plants (electricity purposes),
- Diesel consumption by the mining fleet, processing equipment, support equipment, product haulage and other vehicles (non-transport and transport purposes),
- Land clearing.

2.2.2 Scope 2 GHG Emissions

Scope 2 GHG emissions are *indirect* emissions from the consumption of purchased electricity, steam or heat produced by another organisation.

Scope 2 emissions are assumed to be zero as all electricity will be generated on-site using diesel power generators.

2.2.3 Scope 3 GHG Emissions

Scope 3 GHG emissions are all other *indirect* emissions that are of a consequence of an organisation's activities but are not from sources owned or controlled by the organisation, e.g. the emissions associated with the extraction, refinement, and delivery of diesel to site.

The GHG Protocol (2011) divides Scope 3 GHG emissions into two groups, depending on the financial transactions of the company:

- Upstream indirect GHG emissions related to purchased or acquired goods and services,
- Downstream indirect GHG emissions related to sold goods and services.

Scope 3 GHG emissions are further split into 15 categories to provide a systematic framework for companies to quantify, manage and reduce emissions across their corporate value chain. To avoid double-counting emissions, the categories are designed to be mutually exclusive. Table 3 outlines all Scope 3 categories, their relevancy to the Project and indicates those included in the GHG assessment. A full list and description of the Scope 3 categories, as well as definitions of relevancy, are outlined in Appendix B.

Table 3 Scope 3 GHG Emissions Categories (Greenhouse Gas Protocol, 2011)

Category	Relevancy	Included/Excluded in Assessment
1. Purchased goods and services	Material and directly influenced by the company; should be calculated	Included
2. Capital goods	Material and directly influenced by the company; should be calculated	Included
3. Fuel- and energy-related activities (Not included in Scope 1 or Scope 2)	Material and directly influenced by the company; should be calculated	Included
4. Upstream transportation and distribution	Not material	Excluded
5. Waste generated in operations	Not material	Excluded
6. Business travel	Not material	Excluded
7. Employee commuting	Material and directly influenced by the company; should be calculated.	Included
8. Upstream leased assets	Not material	Excluded
9. Downstream transportation and distribution	Material and directly influenced by the company; should be calculated. Includes the shipping of concentrate from Australia to overseas, transport product from site to port is being considered as Scope 1	Included

10. Processing of sold products	Material and directly influenced by the company; should be calculated. Includes the processing of sold concentrate	Included
11. Use of sold products	Not material	Excluded
12. End-of-life treatment of sold products	Not material	Excluded
13. Downstream leased assets	Not applicable	Excluded
14. Franchises	Not applicable	Excluded
15. Investments	Not applicable	Excluded

2.3 Limitations and Exclusions

The following emissions sources have been excluded from the assessment as they were deemed either minor sources, no use was identified, or no information was provided (exclusions from Scope 3 are outlined in Table 3):

- Oils and greases,
- Sulphur Hexafluoride (SF_6),
- Hydro fluorocarbons (HFCs) and Perfluorocarbons (PFCs),
- Other minor fuel sources (e.g. ULP), and
- Wastewater treatment plant (WWTP).

Other exclusions are noted below:

- Exploration activities,
- No construction and closure phases are included in this assessment due to lack of information,
- Explosives used for mining. There are no factors/methods included in the National Greenhouse Accounts Factors (2020) or the NGER Determination to calculate emissions from explosives.

Whilst the estimates in this assessment have been calculated using the best available information, it should be noted that potential for technology change (implementation of best available technology) and updates to costing over the Project LOM may result in adjustments to emission estimates.

2.4 GHG Emissions Methodology

2.4.1 Scope 1 GHG Emissions

Scope 1 GHG estimates from all sources of the Finniss Project have been prepared using methods and emissions factors from the *National Greenhouse and Energy Reporting*

*(Measurement) Determination 2008 (*NGER Determination), as applicable to 2025-26 financial year (FY2026) reporting.

Fuel Consumption

At present, only diesel will be used at Finniss for fuel consumption. For emission calculations, fuel use is split into 3 categories based on the associated activity; transport (for road-registered vehicles), non-transport (machinery not intended for road travel, e.g., mining activities) and power generation (electricity produced by diesel generators).

The emission factors applied to calculations are shown in Table 4. The emission factors are provided in carbon dioxide equivalents (CO_2-e) and therefore include the global warming potential (GWP) of each gas.

Table 4 GHG Emission Factors applied to Finniss

Emission Source	Energy Content Factor	Emission Factor (kg CO2-e/GJ)			
		CO2	CH4	N2O	Total
Diesel (Post-2004 Transport)	38.6 GJ/kL	69.9	0.01	0.5	70.41
Diesel (Non-transport/Electricity)	38.6 GJ/kL	69.9	0.1	0.2	70.20

Land Clearing

Emissions associated with land clearing have been calculated using the Full Carbon Accounting Model (FullCAM) guidelines produced by the Department of Climate Change, Energy, the Environment and Water (DCCEEW, 2020) and methodology outlined in *Carbon Credits (Carbon Farming Initiative—Avoided Clearing of Native Regrowth) Methodology Determination 2015* (CER, 2018). Emissions were calculated by determining the carbon mass (tonnes of carbon per hectare) of the cleared vegetation, multiplying it by the cleared area (hectares), and converting the resulting carbon mass (tonnes of carbon) to CO_2 emissions.

The carbon mass (tonnes of carbon per hectare) is calculated using the Project location (latitude/longitude coordinates) and taking consideration of the vegetation type of the area. The maximum carbon mass of trees per hectare and the associated forest debris carbon mass per hectare have been utilised in the calculations. Other baseline settings used in the FullCAM calculations were set up in accordance with the FullCAM Guidelines (DCCEEW, 2020).

Emissions have been calculated assuming all vegetation will be completely lost upon land clearing and converted to carbon dioxide emissions.

The inputs applied to the Finniss land clearing calculations are shown in Table 5.

Table 5 Land Clearing Input Data for Finniss

Input	Value
Project Location Coordinates	-12.6897 North; 130.7841 East

Long Term Average Rainfall (annual)	163.5 mm
Other Baseline Settings	As outlined in FullCAM guidelines

2.4.2 Scope 2 GHG Emissions

Scope 2 GHG estimates from electricity consumption are prepared using methods and grid emissions factors from the NGER Determination.

As there are no current plans for the Finniss Project to be connected to the NT grid, the estimated amount of scope 2 GHG emissions is zero.

2.4.3 Scope 3 GHG Emissions

To calculate Scope 3 GHG emissions, the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) has been consulted and the GHG Protocol Technical Guidance for Calculating Scope 3 Emissions (2013) referenced where required.

The two main methods of quantifying Scope 3 GHG emissions are direct measurement and calculation. Direct measurement involves monitoring, mass balance or stoichiometry to quantify emissions, while calculation uses an emission factor and activity data to calculate emissions. Due to the difficulty in direct measurement generally the calculation method is used, as such the general formula for calculating emissions is outlined below:

$$GHG\ Emissions = Activity\ Data\ x\ Emisssion\ Factor$$

A variety of emission factor sources were used, including but not limited to:

- National Greenhouse Accounts Factors (2023),
- UK Conversion Factors (2022),
- Greenhouse Gas Protocol Quantis Scope 3 Evaluator (GHG Protocol, 2021), and
- Various scientific studies.

Category 1 – Purchased goods and services

Scope 3 emissions from purchased goods and services have been estimated and the emission factors applied to the Scope 3 calculation are shown in the table below.

Table 6 Scope 3 Emissions Factors for Spend Data on Purchased Goods and Services

Emission Source	Emission Factor (kg CO_2-e/USD)	Source
Support Activities for Metal Mining	0.372	North American Industry Classification (2022)

Category 2 – Capital Goods

Scope 3 emissions from capital goods have been estimated and the emission factors applied to the Scope 3 calculation are shown in the table below.

Table 7 Scope 3 Emissions Factors for Spend Data on Capital Goods

Emission Source	Emission Factor (kg CO_2-e/USD)	Source
Mining Machinery and Equipment Manufacturing	0.219	North American Industry Classification (2022)

Category 3 – Fuel and Energy-related Activities

Scope 3 emissions from diesel combusted for power generations have been estimated. The emission and energy content factors applied to the calculation of Scope 3 emissions for category 3 are shown in 8.

Table 8 Scope 3 Emissions Factor from 'Well to Tank' for Diesel Combustion

Emission Source	Energy Content Factor (GJ/kL)	Emission Factor (kg CO_2-e/GJ)	Source
Diesel combustion	38.6	17.30	Australian NGA Factors (2025)

Category 7 – Employee Commuting

Scope 3 emissions from employee commuting have been estimated. The emission factor for transport (diesel) is from the NGER Determination 2008, Part 4. The commute distance was taken from Bladin Village, Wickham, NT (proposed employee accommodation) to the Project site. The estimation was calculated using an assumed average diesel consumption for a light vehicle (0.2 L/km), diesel energy content (38.6 GJ/kL), and the default transport emission factor for diesel use (70.41 kg CO_2-e/GJ), sourced from the NGER Determination 2008, part 4.

The data presented in the table below is an estimate that assumes each employee commutes individually, twice a day to emulate a daily work cycle. The emission factor was calculated by multiplying the vehicle's fuel consumption rate (0.2 L/km) by the fuel's energy content (38.6 GJ/kL) and the NGER emission factor (70.41 kg CO_2-e/GJ), after accounting for unit conversions, to determine the emissions per vehicle-kilometre, which is then divided by the single-passenger occupancy assumption to derive the final emission factor.

Table 9 Scope 3 Emissions Factor for Employee Commuting

Emission Source	Distance (km)	Annual Trips	Annual Passengers	Emission Factor per trip (kg CO_2-e/ passenger.km)	Sources
Drive (DIDO) commute Bladin Village – Finniss	55	791	395	0.5436	Calculated

Category 9 – Downstream Transportation and Distribution

Scope 3 emissions from the shipment of spodumene concentrate have been estimated. The emission factor applied to the Scope 3 calculation is shown below.

Table 10 Scope 3 Emissions Factor for Spodumene Concentrate Shipping

Emission Source	Shipping Distance (km)	Emission Factor (kg CO_2-e/tonne conc·km)	Sources
Shipping of spodumene concentrate	5,000	0.00577	UK DEFRA 2023

Category 10 – Processing of Sold Products

Scope 3 emissions from the processing of spodumene concentrate have been estimated. The emission factor applied to the Scope 3 calculation is shown below.

Table 11 Scope 3 Emissions Factor for Spodumene Concentrate Processing

Emission Source	Emission Factor (t CO_2-e/tonne concentrate)	Sources
Processing of spodumene concentrate	12.1	Rathore et al, 2025

2.5 GHG Emissions Estimates

GHG emissions have been estimated for Project activities over the expected LOM. The key inputs used to calculate the GHG emissions associated with the Project are outlined in Table 12. A summary of the Scope 1, 2 and 3 emissions estimated over the LOM is shown in

Figure 2.

Table 12 Key Project Inputs

Input	Value (over LOM)
LOM – Operation	12 Years
Total Material Mined	Total: 17.76 Mt Ore: 10.86 Mt Waste: 6.9 Mt
Total Material Produced	210,000 tonnes concentrate
Power Source (Electricity Generation)	On site diesel generators only

Power Generators – Operation mode	BP33: 24 hrs/7 days pa with 70% load (10.15 MW capacity, ramping up from 1.8 MW) Grants: 24hrs/7 days pa, with 43.5 days shutdowns pa (4.55 MW capacity).
Total Electricity Generation (LOM)	1,298,170 MWH
Forecasted Total Diesel Consumption (LOM)	531 ML
Cleared Area	356 ha in total over LOM

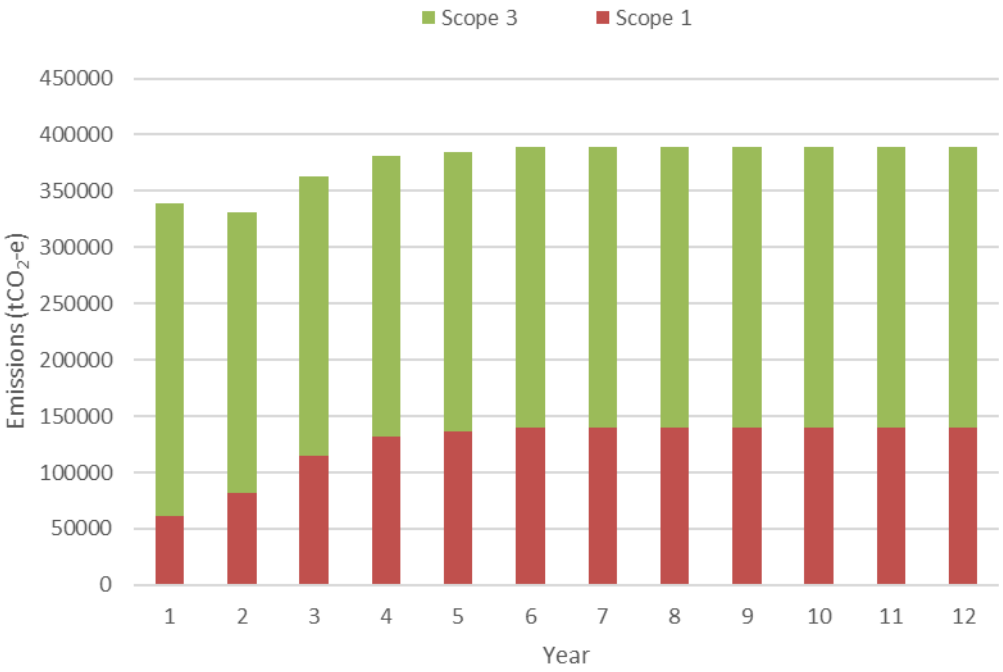

Figure 2: Estimated Total Scope 1 and 3 Emissions for the Project's LOM

2.5.1 Scope 1 GHG Emissions

Fuel Consumption

For the Project, Scope 1 GHG emissions are associated with diesel consumed by the Project's mining fleet and onsite diesel generators.

The results show an estimated 1,437,611 tCO_2-e of Scope 1 GHG emissions (with an average of 119,801 tCO_2-e /year) are expected over the LOM from fuel use by the mining fleet, haulage and for electricity production. The resulting emissions, by source, are outlined in Table 13, and are indicative of calculated values based on provided data.

A summary of the annual estimates is shown in Appendix C.

Table 13 Estimated Scope 1 Emissions associated with Calculated Fuel Usage

Sources	Emissions Over LOM (tCO_2-e)	Average Annual Emissions (tCO_2-e/year)
Diesel consumption by generators	911,315	75,943
Diesel consumption by mining fleet	513,643	42,804
Diesel consumption by offsite haulage	12,653	1,054
Total	**1,437,611**	**119,801**

Land Clearing

The results show an estimated 70,758 tCO_2-e of Scope 1 GHG emissions (with an average of 5,897 tCO_2-e/year) are expected over the LOM from land clearing. The resulting emissions from the proposed area to be cleared and applying the above emission factor are outlined in 14. A maximum use case has been assumed due to data ambiguity.

Refer to Appendix C for a complete breakdown of the emissions calculations.

Table 14 Estimated Scope 1 Emissions Associated with Land Clearing

Area (ha)	Emissions Over LOM (tCO_2-e)	Annual Emission (tCO_2-e/ year)
356	70,758	5,897

Total Scope 1 GHG Emissions

The emissions calculated from fuel use and land clearing have been combined to provide an overall estimate of Scope 1 GHG emissions. The estimated Scope 1 GHG emissions over the LOM are 1,508,369 tCO_2-e and the average annual emissions are 125,697 tCO_2-e/year. Summary of the Scope 1 GHG emissions breakdown, by source, for the Project over LOM is outlined in Table 15 and Figure 3. In the absence of data, maximum values have been used for forecasting purposes.

Calculations and resulting emission estimates are provided in further detail in Appendix C below.

Table 15 Estimated Scope 1 Emissions by Source over LOM

Category	Scope 1 Emissions (tCO_2-e)
For Electricity Purposes	991,315
For Non-transport Purposes	513,643

For Transport Purposes	12,653
Land Clearance	70,758
Total	**1,508,369**

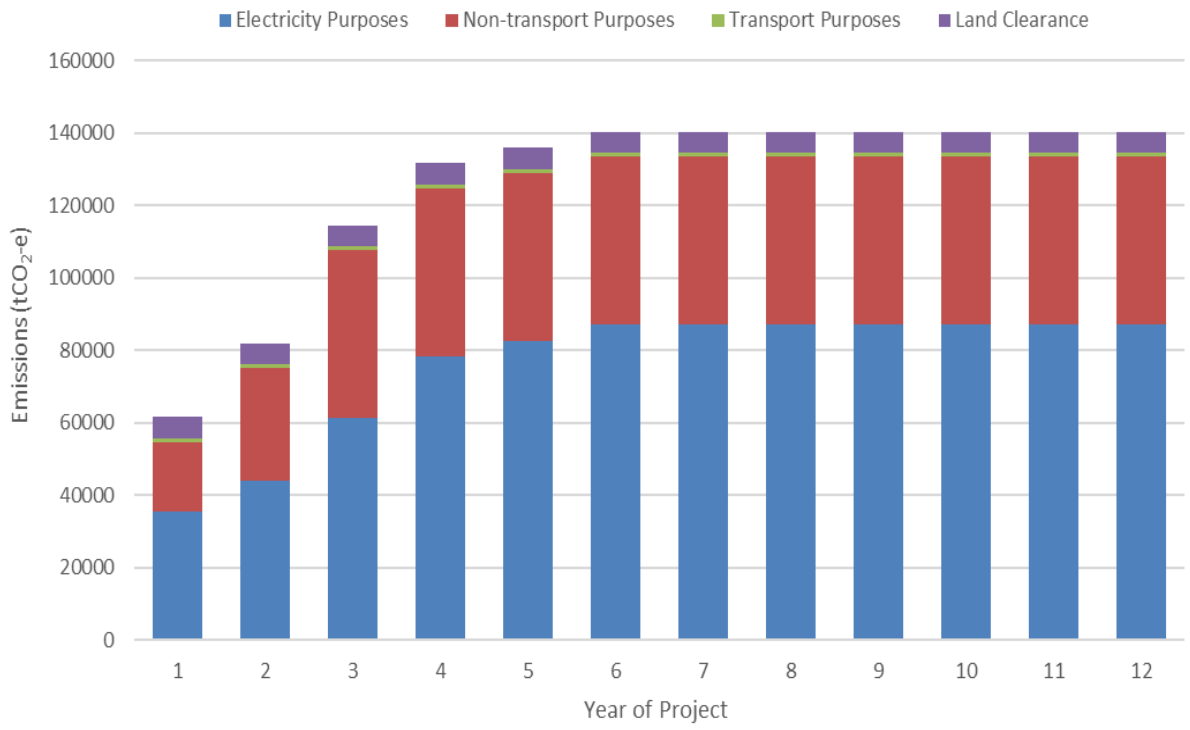

Figure 3: Estimated Scope 1 Emissions by Source over LOM

2.5.2 Scope 2 GHG Emissions

The estimated Scope 2 GHG emissions over the LOM are estimated to be 0 tCO_2-e and the average annual emissions are 0 tCO_2-e/year.

2.5.3 Scope 3 GHG Emissions

Five categories of Scope 3 GHG emissions were determined to be material for the Project in Section 2.2.3. These being purchased goods and services, capital goods, fuel and energy related activities, employee commuting, downstream transport and distribution, and the processing of sold products. Please refer to Appendix B for detailed definitions of these categories. Data used in the calculations was sourced from estimated ore and concentrate production, projected fuel and electricity requirements, direct project tenders, and supply chain analysis.

The Scope 3 results shown in Table 16 show that of the 6 categories, the Processing of Sold Products was the highest contributor making up 84.27% of the Scope 3 GHG emissions. These emissions relate to the electrochemical processing of spodumene concentrate at refineries into lithium carbonate and lithium hydroxide monohydrate via electrodialysis. These

products are primarily used in battery-related products. Calculations and resulting emission estimates are provided in further detail in Appendix C below.

Table 16 Estimated Scope 3 Emissions over LOM

Category	Scope 3 Emissions (tCO_2-e)
Category 1: Purchased Goods and Services	668
Category 2: Capital Goods	28,079
Category 3: Fuel and Energy Related Activities	354,274
Category 9: Downstream Transportation and Distribution	90,903
Category 7: Employee Commuting	337
Category 10: Processing of Sold Products	2,541,000
Total	**3,015,261**

3 Benchmark Assessment

3.1 Contribution of Finniss GHG emissions

Total estimated emissions of Australia from Department of Climate Change, Energy, the Environment and Water for the year to March 2025 was 440.2 million tonnes CO_2-e (DCCEEW, 2025). The Clean Energy Regulator (CER) published the annual NGER data for FY2023-24 in February 2025. For the FY2023-24 year, registered corporations reported a total of 303 million tCO_2-e of Scope 1 GHG emissions and 74 million tCO_2-e of Scope 2 GHG emissions (CER, 2023).

To provide a perspective on the Project's likely impact, Scope 1 GHG emission estimates (see Table 15) have been compared against state and national emission estimates and displayed in Table 17, using the estimated Scope 1 emissions on an annual basis. An average value has been used to account for the variance in annual emissions data over the LOM.

Table 17 Estimated Impact of Finniss Scope 1 GHG Emissions

Location	FY2022-23 Scope 1 GHG Emissions (Million tCO_2-e)	% Contribution from the Project
Northern Territory[b]	23.58	0.6
Australia[c]	440	0.03

a) Only includes facilities reporting to safeguard and electricity generators that provide electricity to the grid. The real figure is likely to be higher as it will include other sources such as smaller mining and processing facilities, road rail and air transport, and agriculture.
b) Source from State and territory greenhouse gas inventories: annual emissions 2023 (DCCEEW, 2025).
c) Source from Quarterly Update of Australia's National Greenhouse Gas Inventory: March 2025 (DCCEEW, 2025).

3.2 Emission Intensity

Emissions intensity was estimated based on production forecasted data and estimated emissions. Emission intensity is calculated by:

$$Emission\ intensity = \frac{Scope\ 1\ emissions}{Production\ variable}$$

The emission intensity estimated for the Finniss Project is 0.047 tCO_2-e/tonnes ore processed, for the production variable run-of-mine (ROM) ore, using the emissions from mining activities exclusively in line with the Safeguard Mechanism.

Overall, the Project's emissions intensity is 7.18 tCO_2-e per tonne of concentrate processed. However, this value cannot be compared to an equivalent benchmark under the Safeguard framework, as no such standard exists due to the highly variable and project-specific nature of concentrate processing. This value represents the comprehensive emissions intensity of the Project, including processing, as opposed to a metric covering only the extraction of run-of-mine (ROM) ore.

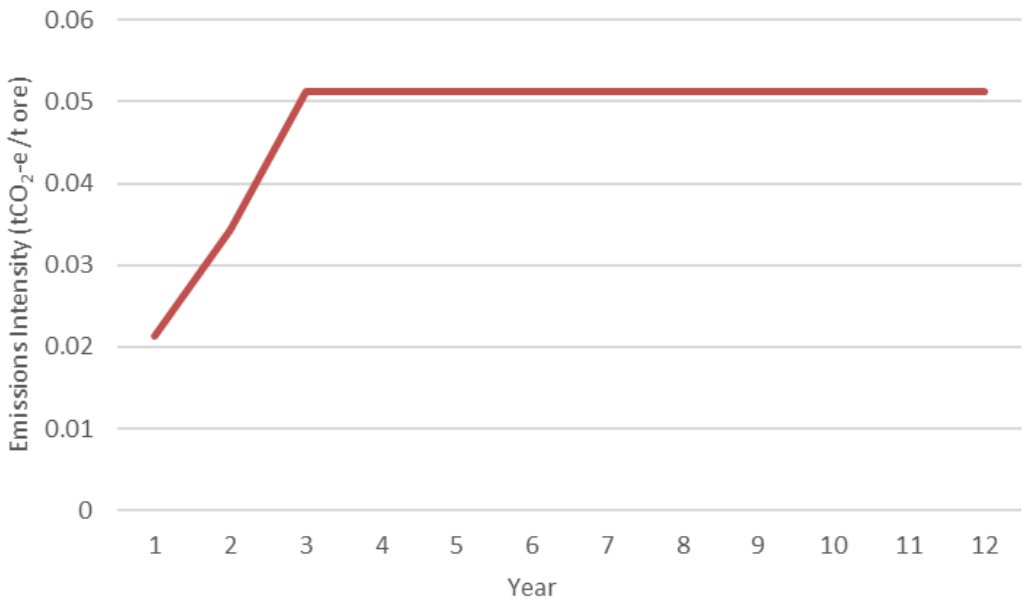

Figure 4: Emission intensities and Scope 1 emissions estimates over LOM

Figure 4 outlines the emissions intensities estimates of the Finniss Project over the LOM. As the Project encompasses historic facilities capable of production from the immediate onset of restart, the emissions intensity is estimated to be relatively linear to reflect the progression of mining activities. As production stabilises and reaches normal operating levels the emissions intensity is expected to equalise and remain relatively constant. In the absence of data beyond year three for mining activities, maximum use cases have been assumed beyond this point.

The estimated emission intensity of the Project was also compared with the other lithium ore mines that are:

- in Australia,
- hard rock (spodumene) mining, and
- producing concentrate.

The GHG emission intensities benchmarking comparison for the Project are outlined in Table 18. The emission intensities shown in the table are based on facilities operating in Australia, and therefore are calculated using the NGER Determination methodologies, which is the same approach used in the calculation. The GHG emission intensities benchmarking comparison for the Project is outlined in Table 18:

Table 18 GHG Emission Intensities Peer Benchmarking

Project	Scope 1 Emissions Intensity* – Lithium Ore (tCO_2-e /t ore)	Scope 1 Emissions Intensity – Electricity Generation (tCO_2-e /MWh)
Finniss Lithium Operation	0.047	0.702
Greenbushes Lithium Operation	0.01241	N/A

Mt. Marion Lithium Project	0.01852	0.5983
Pilgangoora Operation	0.01440	0.697
Wodgina Operations	0.01733	0.6055

* Life of Mine averages. Source: *CER Emissions Intensity Determination Table (2025), based on Scope 1 emissions excluding power generation*.

3.2.1 Safeguard Mechanism Production Variables & Default Emission Intensities

Table 19 compares the estimated emission intensities of the Project with the default and best practice emission intensities specified in the Safeguard Mechanism Rule. Further details on the Safeguard Mechanism can be found in Section 4.1.2 below.

The Project is subject to the following best Safeguard Mechanism production variables:

- Lithium Ore - Production Variable from Schedule 1, Part 17A, of the Safeguard Mechanism Rule.
- Electricity Generation - Production variable from Schedule 1, Part 26 of the Safeguard Mechanism Rule

Table 19 Safeguard Mechanism Production Variables & Default Comparison

Scenario	Items	Emission Intensities	
		Lithium Ore (tCO_2-e/t ore)	Electricity (tCO_2-e/MWh)
Default	Default from Safeguard Mechanism Rule, Schedule 1	0.0151	0.539
Best Practice	Best Practice from Safeguard Mechanism Rule, Schedule 1	0.0105	0.236
Base Scenario	Planned average throughput during LOM	0.047	0.702

4 GHG Monitoring and Reporting

4.1.1 National Greenhouse and Energy Reporting (NGER)

The NGER scheme is a Commonwealth initiative, introduced in 2007, to provide data and accounting in relation to GHG emissions and energy consumption and production.

Under the NGER scheme, corporations that exceed the corporate or facility thresholds need to report annually to the CER (Table 20).

Table 20 Key NGER Thresholds

Level	GHG Emissions	Energy Consumed / Produced
Facility	25,000 tCO_2-e	100,000 GJ
Corporate	50,000 tCO_2-e	200,000 GJ

The controlling corporation (as defined in the NGER Act) of this Project is likely to be Core Lithium Ltd. It is expected that this company will have to include the GHG emissions, energy consumption and energy production from this Project in their NGER report.

4.1.2 Safeguard Mechanism

Starting on 1 July 2016, the Australian Government introduced a Safeguard Mechanism under section 22XS of the NGER Act. Responsible emitters for facilities that emit 100,000 tCO_2-e or more of Scope 1 GHG emissions are required to meet the Safeguard requirements, including keeping the facility's Scope 1 emissions at or below a set baseline. Should the emissions exceed the baseline; the responsible emitter will be required to 'make good' the excess emissions by surrendering Australian Carbon Credit Units (ACCUs) or Safeguard Mechanism Credits (SMCs) or be liable to a substantial penalty.

The Safeguard Mechanism reforms introduced in 2023 apply a decline rate to facilities' baselines so that they are reduced on a trajectory consistent with achieving Australia's emissions reduction targets of 43% below 2005 levels by 2030 and net zero by 2050. The decline rate will be set at 4.9% each year to 2030. Post-2030 decline rates will be set in predictable five-year blocks, after updates to Australia's Nationally Determined Contribution (NDC) under the Paris Agreement.

With forecasted Scope 1 GHG covered emissions of 108,627 tCO_2-e by the third year of operation (2029), the Finniss Project is likely to exceed the default baseline of 100,000 tCO_2-e when it is in operation, and be required to report annual covered emissions to enable a comparison against a baseline determined by the CER. Under this scenario, Core Lithium will have to ensure its net emissions remain at or below the CER-determined baseline during operation. If its actual reported emissions exceed the baseline, Core Lithium will have to reduce onsite emissions or surrender eligible ACCUs to bring its final net emissions down to the required baseline.

Appendix A Glossary

Terms	Definitions
CER	Clean Energy Regulator
CH_4	Methane
CO_2	Carbon Dioxide
CO_2-e	Carbon dioxide equivalence, the amount of the gas multiplied by a value specified in the regulations in relation to that kind of greenhouse gas.
CPI	Consumer price index
Determination	The NGER Determination 2008
Downstream emissions	Indirect GHG emissions related to sold goods and services
EPA	Northern Territory Environmental Protection Authority
EP Act	*Environmental Protection Act 1986*
Facility	Is a single enterprise that undertakes an activity, or a series of activities that involve greenhouse gas emissions, the production of energy or the consumption of energy.
GHG	All greenhouse gases mentioned in the NGER Act
HFCs	Hydro fluorocarbons
LOM	Life of Mine
LOP	Life of Project
MS	Ministerial Statement
N_2O	Nitrous Oxide
NGER	National Greenhouse and Energy Reporting
NGER Act	The National Greenhouse and Energy Reporting Act 2007 as it applies to the current reporting year
Non-transport	Includes purposes for which fuel is combusted that do not involve transport energy purposes, see Sections 2.20, and 2.42 of the Determination.
PER	Public Environmental Review
PFCs	Perfluorocarbons
PNG	Pipeline Natural Gas
Regulations	The NGER Regulations 2008
Scope 1	Emission of greenhouse gas, in relation to a facility, means the release of greenhouse gas into the atmosphere as a direct result of an activity or series of activities (including ancillary activities) that constitute the facility.
Scope 2	Emission of greenhouse gas, in relation to a facility, means the release of greenhouse gas into the atmosphere as a direct result of one or more activities that generate electricity, heating, cooling or steam that is consumed by the facility but that do not form part of the facility.
Scope 3	Indirect emissions of greenhouse gas, that are not included in Scope 2, that occur in the value chain of the reporting company.
SF_6	Sulphur Hexafluoride – a gas used in switchgear and circuit breakers for insulation.
t Carbon	Tonnes of Carbon
t CO_2-e	Tonnes of carbon dioxide equivalent
Transport	Includes purposes for which fuel is combusted for transport by vehicles registered for road use, rail transport, marine navigation, and air transport, see Sections 2.20, and 2.42 of the Determination
UNFCCC	United Nations Framework Convention on Climate Change
Upstream emissions	Indirect GHG emissions related to purchased or acquired goods and services

Appendix B Scope 3 Emission Categories and Relevancy

Category	Description
1. Purchased goods and services	All emissions from the production of products and services purchased or acquired by the reporting company in the reporting period. *Example: The emissions associated with the extraction, production and transportation (between suppliers) of copper that is purchased by the reporting company to create bronze.*
2. Capital goods	All upstream emissions from the production of capital goods purchased by the company in the reporting period. *Example: Emissions associated with the production of excavators used by the reporting company.*
3. Fuel- and energy-related activities (Not included in Scope 1 or Scope 2)	All emissions related to the production (extraction, processing, transport etc.) of fuel and energy purchased by the reporting company, that are not included in the company's Scope 1 and Scope 2 emissions. *Example: The emissions from extracting crude oil, processing it to form diesel and transporting it to a site run by the reporting company.*
4. Upstream transportation and distribution	All emissions resulting from the transportation and distribution of purchased products, between a company's tier 1 suppliers and its own operations, in vehicles not owned by the reporting company, as well as any third-party transportation and distribution services purchased by the reporting company between a company's own facilities. *Example: Emissions from transportation of purchased copper between the supplier and the reporting company's bronze manufactoring facility.*
5. Waste generated in operations	All emissions from third-party treatment and disposal of waste that is generated by the company in the reporting period. *Example: Waste sent from the reporting company's site facilities for recycling, disposal at landfills, incineration, composting, etc.*
6. Business travel	All emissions from the transportation of employees for business-related activities in vehicles owned or operated by third-parties. *Example: Flights to business conferences and meeting suppliers.*
7. Employee commuting	All emissions from the transportation of employees between their homes and worksites. *Examples: FIFO and DIDO to site.*
8. Upstream leased assets	All emissions from the operation of leased assets that are not included in the company's Scope 1 and 2 emissions inventory. *Example: Emissions from leased cars, offices and buildings.*
9. Downstream transportation and distribution	All emissions from third-party transport and distribution of the company's sold products in the reporting period. *Example: Emissions from third-party marine transportation of iron ore sold by the reporting company to be processed by another company.*
10. Processing of sold products	All emissions from processing of sold intermediate products by third-parties, subsequent to the sale of the product by the reporting company. *Example: Emissions from processing of iron ore sold by the reporting company to create steel.*

11. Use of sold products	All emissions from the use of goods and services sold by the reporting company in the reporting period. *Example: Emissions from the combustion of diesel, produced by the reporting company, as fuel for cars.*
12. End-of-life treatment of sold products	All emissions from the waste disposal or treatment of products sold by the company in the reporting period, at the end of their life. *Example: Emissions from recycling of metal cans sold by the reporting company.*
13. Downstream leased assets	All emissions from the operation of assets owned by the company and leased to third-parties in the reporting period, if they are not included in the company's Scope 1 and Scope 2 emissions. *Example: Emissions from electricity used in offices/buildings leased by the reporting company to other operations.*
14. Franchises	All emissions from the operation of franchises, by franchisees, not included in the franchisor's Scope 1 and Scope 2 emissions. *Example: Emissions from operations associated with a company's trademark.*
15. Investments	All emissions associated with operating the reporting company's investments in the reporting period. *Example: Emissions associated with a mine a company has a financial investment in but not operational control.*

Criteria	Description
Size	They contribute significantly to the company's total anticipated Scope 3 emissions.
Influence	There are potential emissions reductions that could be undertaken or influenced by the company.
Risk	They contribute to the company's risk exposure (e.g., climate change related risks such as financial, regulatory, supply chain, product and customer, litigation, and reputational risks).
Stakeholders	They are deemed critical by key stakeholders (e.g., customers, suppliers, investors, or civil society).
Outsourcing	They are outsourced activities previously performed in-house or activities outsourced by the reporting company that are typically performed in-house by other companies in the reporting company's sector.
Sector guidance	They have been identified as significant by sector-specific guidance.
Other	They meet any additional criteria for determining relevance developed by the company or industry sector.

Source: GHG Protocol (2011)

Appendix C Data and Emissions Results

	Total LOM	UNITS	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12
Scope 1 Emissions														
Road Trains:	12653	tCO2-e	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054
Land Clearing:	70758	tCO2-e	5897	5897	5897	5897	5897	5897	5897	5897	5897	5897	5897	5897
Grants Processing:	295748	tCO2-e	24646	24646	24646	24646	24646	24646	24646	24646	24646	24646	24646	24646
BP33 Power:	615567	tCO2-e	10762	19371	36590	53808	58113	62418	62418	62418	62418	62418	62418	62418
BP33 Mining:	502180	tCO2-e	7753	31057	46337	46337	46337	46337	46337	46337	46337	46337	46337	46337
Grants Mining:	11463	tCO2-e	11463	0	0	0	0	0	0	0	0	0	0	0
Total Scope 1 Emissions:	1508369	tCO2-e	61574	82025	114523	131742	136047	140351	140351	140351	140351	140351	140351	140351
Scope 1 Emissions Intensity (Safeguard – ROM ore)	0.047	tCO2e/t ore	0.02	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Scope 1 Emissions Intensity (Concentrate)	7.18	tCO2e/t concentrate	3.52	4.69	6.54	7.53	7.77	8.02	8.02	8.02	8.02	8.02	8.02	8.02
Scope 3 Emissions														
Scope 3 Emissions - Purchased Goods and Services	668	tCO2-e	56	56	56	56	56	56	56	56	56	56	56	56
Scope 3 Emissions - Capital Goods	28079	tCO2-e	28079	0	0	0	0	0	0	0	0	0	0	0
Scope 3 Emissions - Employee Commute	337	tCO2-e	28	28	28	28	28	28	28	28	28	28	28	28
Scope 3 Emissions - Downstream Transport and Distribution	90903	tCO2-e	7575	7575	7575	7575	7575	7575	7575	7575	7575	7575	7575	7575
Scope 3 Emissions - Processing of Sold Products	2541000	tCO2-e	211750	211750	211750	211750	211750	211750	211750	211750	211750	211750	211750	211750
Scope 3 Emissions - Purchased Diesel	354274	tCO2-e	29523	29523	29523	29523	29523	29523	29523	29523	29523	29523	29523	29523

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