

FWP0001181

TIMOR LIMESTONE QUARRY FORWARD PROGRAM

Wednesday 23 November 2022 to Saturday
22 November 2025

Contents

Summary.....	3
Important.....	3
Three-year forecast – surface disturbance activities.....	4
Project description.....	4
Description of surface disturbance activities.....	4
Three-year rehabilitation forecast.....	6
Rehabilitation planning schedule.....	6
Rehabilitation research and trials.....	7
Rehabilitation maintenance and corrective actions.....	8
Rehabilitation schedule.....	8
Subsidence remediation for underground operations.....	8
Progressive mining and rehabilitation statistics.....	9
Three-yearly forecast cumulative disturbance and rehabilitation progression.....	9
Rehabilitation key performance indicators (KPIs).....	9
Attachment 1 – Reporting Definitions.....	10
Attachment 2 – Definitions.....	12
Attachment 3 – Plans.....	18

Summary

DETAIL

Mine	Timor Limestone Quarry
Reference	FWP0001181
Forward program commencement date	Wednesday 23 November 2022
Forward program end date	Saturday 22 November 2025
Forward program revision (if applicable)	
Contact	Scott Hollamby
Mining leases	ML 1660 (1992)
Project location	STONECO PTY LIMITED
Date of submission	Thursday 18 May 2023

Important

The department may make the information in your program and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your program to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Three-year forecast – surface disturbance activities

Project description

The Timor Limestone Quarry (the “Quarry Site”) is located within Lot 32 DP748766, approximately 21km northeast of Murrurundi in the Upper Hunter Region of NSW. The Quarry operates under DA 308/08 granted on 23 of June 2010 which expires 30 years from commencement of the development consent. It is noted that changes to anticipated extraction and production rates and/or the discovery of additional mineralisation available for extraction could result in the actual completion date being extended through future modification of the development consent.

The Quarry is approved to extract and transport 100,000tpa.

Description of surface disturbance activities

Exploration activities

No exploration activities are anticipated to be undertaken during the Forward Program period.

Construction activities

No construction activities are anticipated to be undertaken during the Forward Program period.

Mining schedule

Mining development method and sequencing and general mine features.

Limestone will be recovered from the existing disturbance footprint using drill and blast methods with drilling and blasting occurring on a campaign basis. Each campaign will extract in the order of 10,000t to 20,000t of limestone with up to 100,000t extracted per year. No overburden is expected to be encountered during the Forward Program period.

Areas identified for emplacements, the sequencing of emplacements, construction, and management.

No overburden emplacements are planned or approved. Any overburden is utilised for progressive construction of safety bunding/barriers.

Processing infrastructure activities and the location of tailings facilities and schedule for emplacement

Mobile crushing and screening plant within the extraction area will reduce rock <300mm to saleable product. Any oversize (>300mm) is reduced using a rock-breaker or sold as stabilisation material for creek restoration etc. No tailings are generated or stored.

Waste disposal and materials handling operations.

The principal wastes that will be generated include general wastes associated with equipment maintenance, and operating the office and amenities. All general wastes originating from the office and amenities together with routine maintenance consumables from the servicing of equipment will be disposed of in appropriate waste receptacles placed adjacent to the office or the storage container within the stockpiling and handling area. The waste receptacles will be collected by a licenced waste disposal contractor or removed to a licenced facility on an as-needs basis.

All wastes capable of being recycled e.g. paper / cardboard, hydrocarbons, and metals will be separately stored from non-recyclable wastes. All hydrocarbon wastes will be stored in a bunded area within the stockpiling and handling area or laydown area and removed by a licenced waste disposal contractor. In the event of a hydrocarbon spill, the contaminated material and spill kit material use to absorb the spill would be collected and also stored in the bunded area for removal by a licenced waste disposal contractor.

Ablution wastes will be managed using a Council approved septic system with absorption trench (OSSMS No ST 2429/2014). The system will be serviced in accordance with manufacturer and Council requirements.

Key production milestones

MATERIAL	UNIT	YEAR 1	YEAR 2	YEAR 3
Stripped topsoil (if applicable)	(m ³)	0	0	0
Rock/overburden	(m ³)	0	0	0
Ore	(Mt)	0.05	0.05	0.05
Reject material¹	(Mt)	0	0	0
Product	(Mt)	0.05	0.05	0.05

¹ This includes coarse rejects, tailings and any other wastes resulting from beneficiation.

Three-year rehabilitation forecast

Rehabilitation planning schedule

Rehabilitation planning schedule

No rehabilitation performance issues, or knowledge gaps have been identified in an Annual Rehabilitation Report for the Quarry to date. No further rehabilitation activities are planned during the Forward Program period.

Stakeholder consultation

No additional consultation is currently expected to be required over the next three years.

Rehabilitation studies, risk assessments and/or design work

No additional studies, risk assessments or design work is expected to be completed with regard to the final landform design or rehabilitation methodologies over the next three-year period.

TIMOR LIMESTONE QUARRY FORWARD PROGRAM

FWP0001181 | Wednesday 23 November 2022 to Saturday 22 November 2025

Rehabilitation research and trials

RRT NUMBER	PROJECT/TRIAL NAME	OBJECTIVE OF TRIAL/PROJECT	METHODOLOGY	EXPECTED DATE OF COMPLETION	STATUS
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FWP0001181

Rehabilitation maintenance and corrective actions

No rehabilitation performance issues, or knowledge gaps have been identified in an Annual Rehabilitation Report for the Quarry to date (as the first Annual Rehabilitation Report has not yet been required).

Rehabilitation schedule

Extraction will be confined to the existing footprint of disturbance with no additional areas becoming available for rehabilitation. The disturbance and rehabilitation is consistent with the documentation supporting the development consent.

Subsidence remediation for underground operations

Not applicable.

Progressive mining and rehabilitation statistics

Three-yearly forecast cumulative disturbance and rehabilitation progression

FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
A Total surface disturbance footprint	(ha)	7.48	7.48	7.48
B Total active disturbance	(ha)	7.48	7.48	7.48
C Land prepared for rehabilitation	(ha)	0	0	0
D Ecosystem and land use establishment	(ha)	0	0	0

Rehabilitation key performance indicators (KPIs)

FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
O Total new active disturbance area	(ha)			
P Area proposed for active rehabilitation	(ha)			
Q Annual rehabilitation to disturbance ratio				

Attachment 1 – Reporting Definitions

REPORTING CATEGORY	DEFINITION
A Total disturbance footprint – surface disturbance	All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities. The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below). Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
B Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
C Rehabilitation – land preparation	Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation– decommissioning, landform establishment and growth medium development. Refer to the glossary of terms in this document for the definition of these phases of rehabilitation.
D Ecosystem and land use establishment	Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites. Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.

REPORTING CATEGORY	DEFINITION
O	The area of any new active disturbance that will be created during the next three years, as defined under definition A1 (definition A1 Table 5).
P	The sum of any new rehabilitation to be commenced in the next three years. These areas may be in the phases “Rehabilitation - Land Preparation” or the “Ecosystem & Land Use Establishment” (definitions C & D in Table 5).
Q	The rehabilitation to disturbance ratio (S / R) indicates how many hectares of new rehabilitation are undertaken for each hectare of land disturbed during the three years. A ratio of 1/1 indicates that the area of new rehabilitation and disturbance in that period are the same.

Attachment 2 – Definitions

WORD	DEFINITION
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Analogue site	In the context of rehabilitation, an analogue site is a 'reference site' that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.

WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).
Domain	An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.
Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species). This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Habitat	Has the same meaning as that term under the <i>Biodiversity Conservation Act 2016</i> and the <i>Fisheries Management Act 1994</i> (as relevant).
Indicator	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
Land	As defined in the <i>Mining Act 1992</i> .
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.

WORD	DEFINITION
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: ■ upload rehabilitation geographical information system (GIS) spatial data ■ develop rehabilitation GIS spatial data (using online tracing functions) ■ generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.
Mining area	As defined in the <i>Mining Act 1992</i> .
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).
Mining land	As defined in the <i>Mining Act 1992</i> .
Native vegetation	Has the same meaning as that term under section 60B of the <i>Local Land Services Act 2013</i> .
Overburden	Material overlying coal or a mineral deposit.
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.

WORD	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: ■ active mining ■ decommissioning ■ landform Establishment ■ growth medium development ■ ecosystem and land use establishment ■ ecosystem and land use development.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation Completion	The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of <i>Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate</i> application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.

WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: ■ the relevant development consent authority ■ the local council ■ the relevant landholder(s) ■ community consultative committee (if required under the development consent) or equivalent consultative group ■ affected land holder(s) ■ government agencies relevant to the final land use ■ affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) ■ local Aboriginal communities, and ■ any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water ² .
Waste	Has the same meaning as that term under the <i>Protection of the Environment Operations Act 1997</i> .

² Commonwealth of Australia (DITR), 2007. *Tailings Management*.

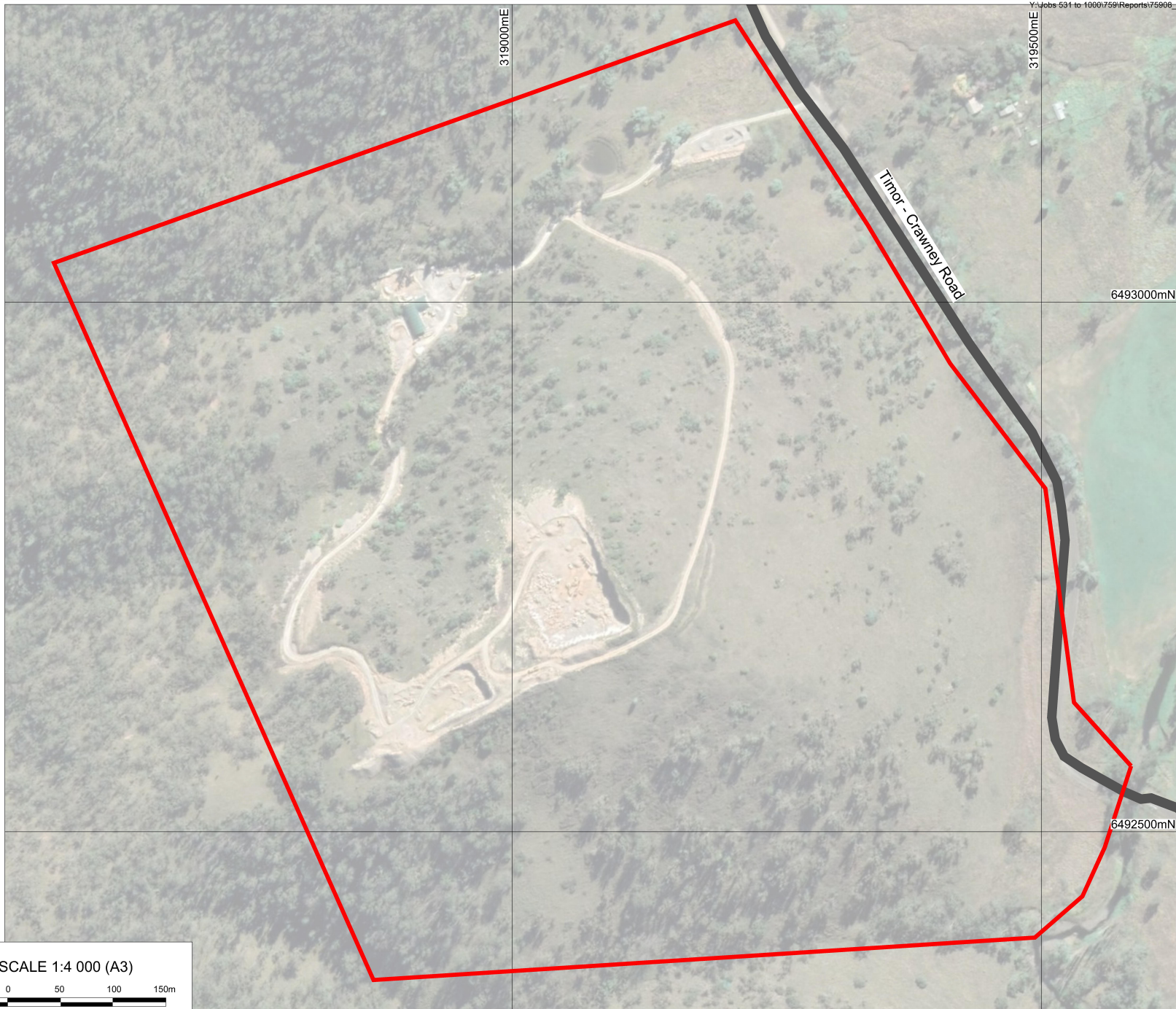
Attachment 3 – Plans

PLan 2A .jpg

PLan 2B .jpg

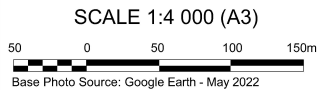
PLan 2C .jpg

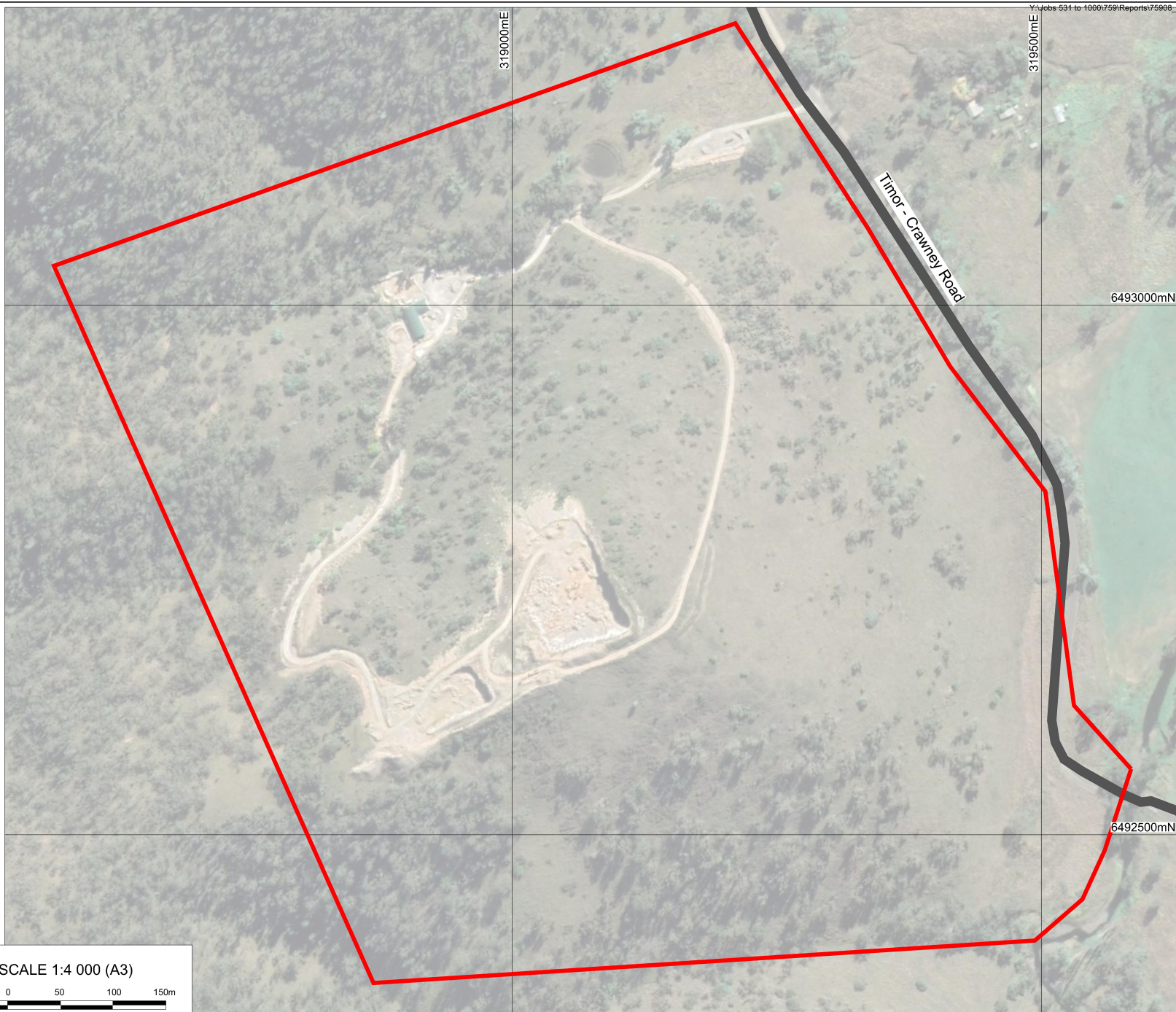
Forward Program (LARGE MINE) v2.1



- REFERENCE
Project Approval Boundary / ML1660
- Rehabilitation Forecast**
Forecast Disturbance
Forecast Land Prepared for Rehabilitation
Ecosystem and Land Use Establishment

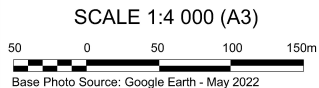
Mine Name	Timor Limestone Quarry
Plan Name	Plan 2A Mining and Rehabilitation - Year 1
Anticipated Year of Relinquishment	2050
Date Plan Created	21 July 2022
Data Theme Submission ID Numbers	5021

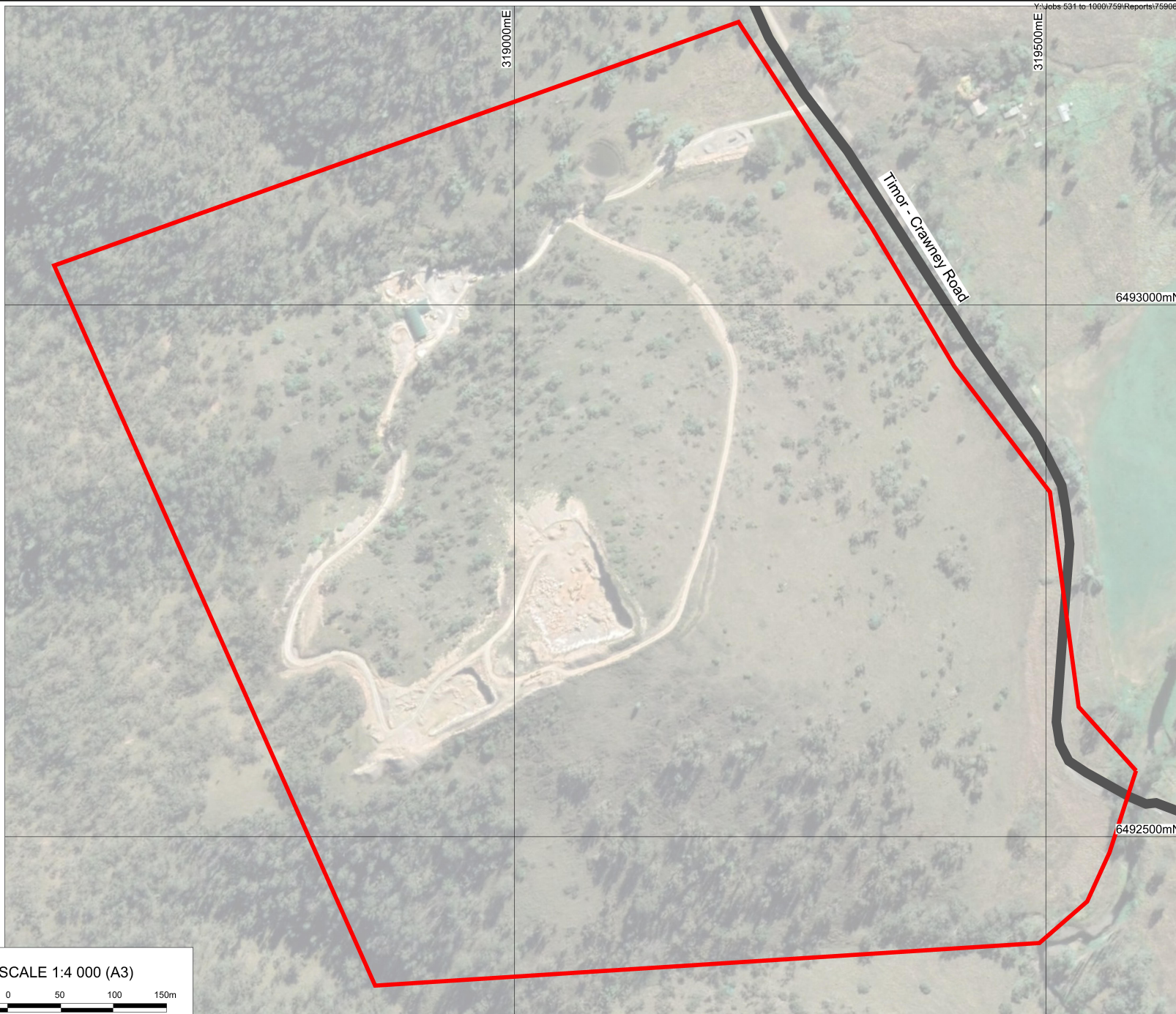




- REFERENCE**
- Project Approval Boundary / ML1660
- Rehabilitation Forecast**
- Forecast Disturbance
 - Forecast Land Prepared for Rehabilitation
 - Ecosystem and Land Use Establishment

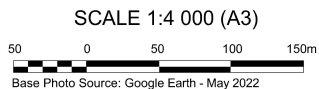
Mine Name	Timor Limestone Quarry
Plan Name	Plan 2B Mining and Rehabilitation - Year 2
Anticipated Year of Relinquishment	2050
Date Plan Created	21 July 2022
Data Theme Submission ID Numbers	5022





- REFERENCE
Project Approval Boundary / ML1660
- Rehabilitation Forecast**
Forecast Disturbance
Forecast Land Prepared for Rehabilitation
Ecosystem and Land Use Establishment

Mine Name	Timor Limestone Quarry
Plan Name	Plan 2C Mining and Rehabilitation - Year 3
Anticipated Year of Relinquishment	2050
Date Plan Created	21 July 2022
Data Theme Submission ID Numbers	5023





Open Cut Summary Rehabilitation Cost Estimation

Note: Sections of this page are automatically filled in from the registration page

Mine Name:	Timor Limestone Quarry		
Lease(s):	Mining Lease 1660		
Authorisation Owner:	Stoneco Pty Limited		
Mine Operator:	Stoneco Pty Limited		
Term of RCE:			
Current Security:	\$152,584	Date of Last Security Deposit Review:	31/01/2022
Mine Contact:	Mr Scott Murdoch		
Position:	Mine Manager		
Address:	PO Box 708 SCONE NSW 2337		
Phone:	(02) 6545 2222	Email:	admin@stonecoquarries.com

Domain		Security Deposit
Domain 1: Infrastructure		\$26,638
Domain 2: Tailings & Rejects		
Domain 3: Overburden & Waste		
Domain 4: Active Mine & Voids		\$41,315
Domain 5: Management Activities		\$34,200
Subtotal (Domains and Sundry Items)		\$102,153
Contingency	10%	\$10,215
Post Closure Environmental Monitoring	10%	\$10,215
Project Management and Surveying	10%	\$10,215
Total Security Deposit for the Mining Project (excl. of GST)		\$132,798

Note: GST is not included in the above calculation or as part of rehabilitation security deposits required by the Department.

- ☒ Alterations have been made to unit prices within this spreadsheet. (Attach a separate sheet providing details of changes).
- ☒ The proposed rehabilitation design is generally consistent with the development consent for the project.

This Registration Form, Summary Report and calculation pages are to be printed and attached as an appendix the AEMR or MOP.

This mine security calculation has been estimated using the best available information at the time.
It is a true and accurate reflection of the total rehabilitation liability held by this mine.

Scott Murdoch
Company Representative's Name

28/07/2022
Date

Managing Director
Company Representative's Role / Responsibility

Signature