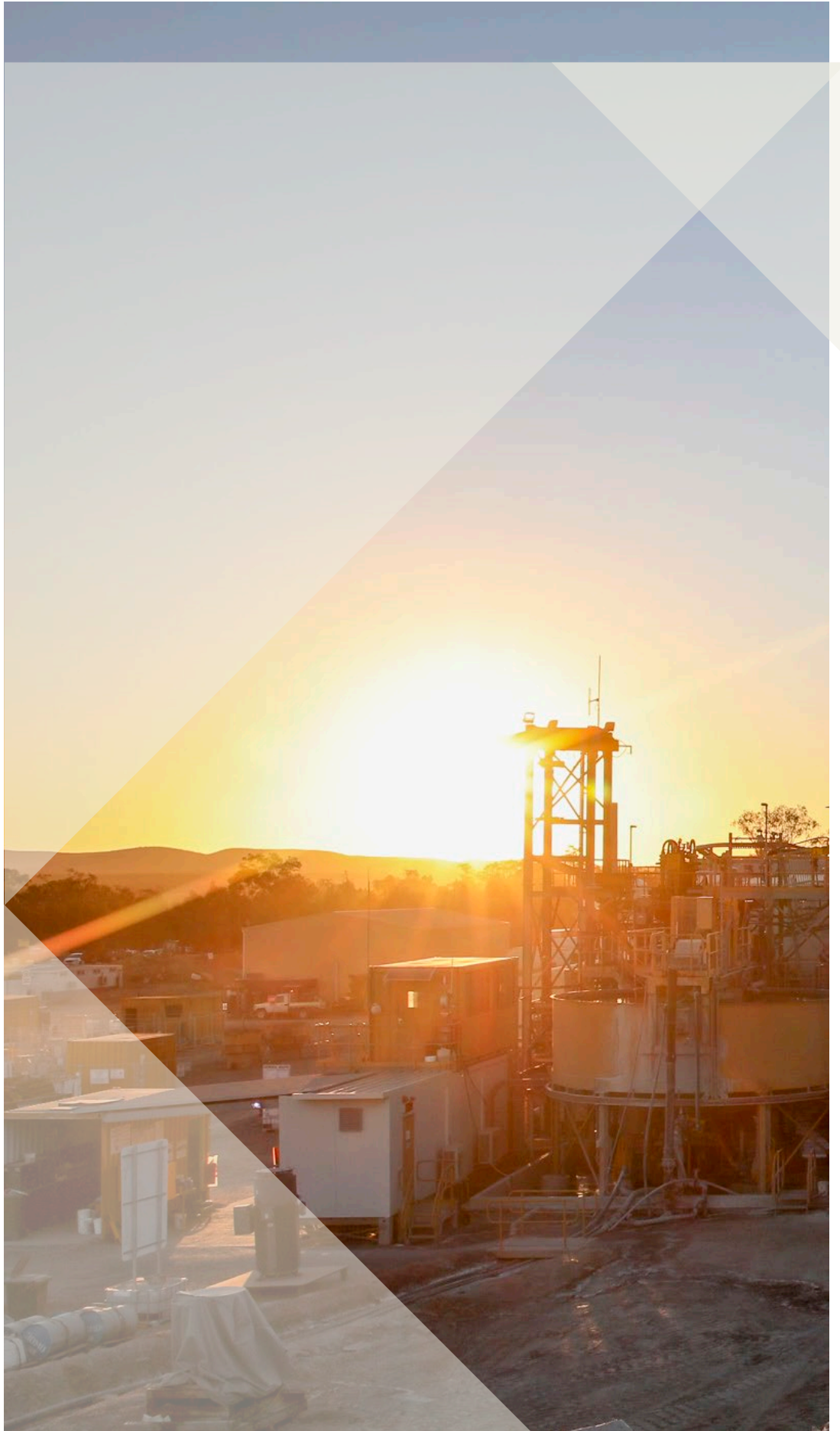


WASTE MANAGEMENT PLAN

MANAGEMENT PLAN

3/07/2023



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## DOCUMENT CONTROL

Version	Company	Revision Date	Description of Changes	Reviewed	Approved
Original	R.W. Corkery	15/10/2011	Original	Mitchell Bland	AJ Saverimutto
Revision 1	R.W. Corkery	20/02/2012	Template update and review	Mitchell Bland	DoPI
Revision 2	R.W. Corkery	30/01/2013	Template update and review	James Dornan	DoPI
Revision 3	Unity Mining	30/11/2013	Template update and review	James Dornan	Scott Jones
Revision 4	Diversified Mining	23/01/2017	Template update and review	Mitchell Bland	DPE
Revision 5	R.W. Corkery	22/08/2019	Template update and review	James Dornan	DPE
Revision 6	Aurelia	2/09/2022	Template update and review	Chase Dingle	DPE
Revision 7	Aurelia	11/01/2023	MOD 5 update	Enzo Guarino	DPE (June 23)

# 1. INTRODUCTION

**Dargues Gold Mine** is an underground metalliferous mine owned by Big Island Mining Limited, a wholly owned subsidiary of Aurelia Metals Limited. **Dargues Gold Mine**. The Project Site is located approximately 60km southeast of Canberra, 13km south of Braidwood and immediately north of the village of Majors Creek.

The Project consists of an underground gold mine, a run-of-mine (ROM) pad, temporary waste rock emplacement, processing plant, tailings storage facility and associated infrastructure and ancillary activities.

This document has been prepared in accordance with Schedule 3 of *Condition 48* of Modified Project Approval (MP) 10\_0054. Under modification 5 of the project approval, the following is discussed:

- The legal and other requirements associated with management of waste within the Project Site.
- Waste minimisation and management measures that will be implemented.
- Evaluation of compliance of waste management operations.
- Incident reporting.
- Roles and responsibility.
- Competence training and awareness.
- Document review.

The Project is fully described in the following documents and no further background information is provided in this document.

*Environmental Assessment* dated September 2010 and associated documentation prepared to support the application for Project approval.

*Mining Operations Plan* dated July 2014.

*Environmental Assessment – Modification 1* dated April 2012.

*Response to Government Agency and Public Submissions for the Dargues Reef Gold Project - Modification 1* dated June 2012.

*Environmental Assessment – Modification 2* dated July 2013.

*Response to Government Agency and Public Submissions for the Dargues Reef Gold Project - Modification 2* dated September 2013.

*Environmental Assessment – Modification 3* dated August 2016.

*Response to Government Agency and Public Submissions for the Dargues Gold Mine - Modification 3* dated November 2015.

*Statement of Environmental Effects for the Dargues Gold Mine – Modification 4* dated November 2018.

*Response to Submissions for the Dargues Gold Mine – Modification 4* dated January 2019.

- *Statement of Environmental Effects for the Dargues Gold Mine – Modification 5* dated 2022.
- *Response to Submissions for the Dargues Gold Mine – Modification 5* dated 2022.

In addition, a range of management plans have been prepared to guide operations within the Project Site. These include the following.

- Noise Management Plan
- Blast Management Plan
- Air Quality and Greenhouse Gas Management Plan
- Water Management Plan
- Biodiversity Management Plan

Aboriginal Heritage Management Plan  
Traffic Management Plan  
Bushfire Management Plan

## 2. CONSULTATION

The following consultation was undertaken during preparation of this document.

A draft copy of Revision 1 of this document was provided to the Department of Planning and Infrastructure for review on 15 October 2011.

A copy of Revision 2 was provided to the Department of Planning and Infrastructure for approval on 20 February 2012. Approval of Revision 2 was granted on 20 February 2012.

A letter requesting approval of Mr Mat Revell of Backfill Specialists (formerly Revell Resources) as a suitably qualified expert to undertake paste fill trials and testing, in accordance with Schedule 3, Condition 47B) was provided to Department of Planning and Infrastructure on 30 July 2012. Approval of Mr Revell as a suitably qualified expert was received on 1 August 2012.

Revision 3 of this document was reviewed internally following the approval of Modification 2 with only administrative changes being made.

A copy of Revision 4 of this document was provided to the Department of Planning and Environment on 10 November 2016, with a response received on 19 December 2016. A copy of Revision 5 of this document was provided to the Department of Planning, Industry and Environment (DPE) on 23 August 2019, with a response received from DPE on the 2 December 2019.

All feedback from the above agencies was taken into consideration when preparing and finalising this document.

Community consultation was also undertaken through informal and formal consultation processes. A Community Information Line (1800 732 002) was established in May 2010, a range of public meetings and information sessions have been held, as well as one-on-one consultation undertaken. This consultation indicated that the principal waste-related issues of concern for the community surrounding the Project Site are as follows.

Disposal of general waste at council tips.

Impact of paste fill on groundwater quality.

Waste classification of the paste fill and the potential for it to be classified as liquid waste.

The strength of the paste fill once cured and its long-term stability.

A draft copy of Revision 7 of this Plan was provided to the Secretary on 11 January 2023.

## 3. LEGAL AND OTHER REQUIREMENTS

The Project received Project Approval (PA10\_0054) 7 February 2012 pursuant to the *Environmental Planning and Assessment Act 1979* (EP&A Act). Modification 1 for the use of paste fill at the Project Site was subsequently approved on 12 July 2012 (MP10\_0054). Modification 2 to regularise changes to the layout of the project was subsequently approved on 24 October 2013. Modification 3 for an extension of the mine life and increase in the resource extracted was subsequently approved on 10 August 2016. Modification 4 for the relocation of the approved heavy vehicle crossing of Spring Creek and the reinstatement of the previously approved access track from the Site Access Road to the Tailings Storage Facility was subsequently approved on 23 May 2019. Modification 5 is for increased processing rate, and to support water security measures on site, including a water storage dam and supply of water.

The Project Approval stipulates the required criteria that the construction and operational activities of the Project must comply with and sets out the core requirements of this Management Plan. Relevant conditions and commitments associated with MP10\_0054 MOD5 are reproduced in **Table 1**.

TABLE 1: Waste Related Conditions (MP10\_0054)

Condition	Requirement	Section
3(47A)	The Applicant must ensure that any paste fill used to fill mine voids on site: (a) complies with leachable concentration (TCLP) criteria and specific contaminant concentration (SCC) criteria for general solid waste (non-putrescible); and (b) is not classified as a liquid waste, under the <i>Waste Classification Guidelines</i> (EPA, 2009), or its latest version.	Section 5
3(47B)	Prior to the commencement of paste fill operations on site, the Applicant must commission a suitably qualified expert, whose appointment has been endorsed by the Secretary, to: (a) carry out further trials and testing to clarify the physical characteristics of the paste fill; (b) undertake further bench tests of the paste fill to determine the leaching characteristics; (c) prepare a program for the ongoing testing of the paste fill to ensure it meets the performance measures in condition 47B; and (d) compare the results of the additional trials and testing against the results presented in Dargues Reef Paste Fill Test Work and Design (Revell, 2010), to the satisfaction of the Secretary.	Section 5
3(47)	The Applicant must: (a) minimise the waste generated by the project; (b) ensure that the waste generated by the project is appropriately stored, handled and disposed of; and (c) manage on-site sewage treatment and disposal in accordance with the requirements of Council, to the satisfaction of the Secretary.	Section 4
3(48)	The Applicant must implement the approved Waste Management Plan for the project to the satisfaction of the Secretary. <b>This plan must be submitted to the Secretary prior to construction.</b>	Section 2 & 3

Table 2 presents the requirements for this plan and where each is addressed in this document.

TABLE 2: Project Approval Requirements.

Requirement	Section
<b>Condition 3(48)</b>	
<b>Waste Management Plan</b>	
The Applicant must prepare and implement a Waste Management Plan for the project to the satisfaction of the Secretary. This plan must be submitted to the Secretary prior to construction	Entire document
<b>Condition 5(2)</b>	
<b>Management Plan Requirements</b>	
The Applicant must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:	Not applicable
a) detailed baseline data:	
b) a description of:	
• the relevant statutory requirements (including any relevant approval, licence or lease conditions)	3
• any relevant limits or performance measures/criteria;	N/A

Requirement	Section
<ul style="list-style-type: none"> <li>the specific performance indicators that are propose to be used to judge the performance of, or guide the implementation of, the project or any management measures;</li> </ul>	N/A
c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits or performance measures/criteria;	4 and 5
d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>impacts and environmental performance of the project;</li> <li>effectiveness of any management measures (see c above)</li> </ul>	4 and 5
e) a contingency plan to manage any unpredicted impacts and their consequences;	5.2.4
f) a program to investigate and implement ways to improve the environmental performance of the project over time;	6 and 9
g) a protocol for managing and reporting any; <ul style="list-style-type: none"> <li>incidents</li> <li>complaints</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul>	6
h) a protocol for periodic review of the plan	9

*Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans*

This Plan shall continue to be periodically reviewed and approved by the DPE prior to its implementation. Further, as part of its periodical reviewal process is the Plan's compliance with any legislative and/ or operational changes.

## 4. GENERAL WASTE MANAGEMENT MEASURES

### 4.1. INTRODUCTION

Dargues Gold mine produces two types of waste. General Waste which is described in Section 4 and Paste fill which is described In Section 5.

It is estimated that the Project would result in approximately 52 tonnes of general waste material per year being disposed of to landfill. Other wastes generated by the Project would be recycled where possible and comprises of the following:

Waste oils and greases.

Batteries and tyres.

Scrap steel/metal.

General recyclables.

Used reagent and chemical containers.

Paste fill is addressed separately in Section 5.

The above waste types will be managed as separate waste streams. In summary, where removal of waste from the Project Site is required, it will be removed by a suitably licenced contractor and taken to an approved facility. No waste material is taken to either the Majors Creek or Braidwood waste transfer facilities.

Wastewater from site's ablution facilities is treated via site's wastewater treatment facility, which is in accordance with council requirements and in satisfaction of *Condition 3 (47)* of MP10\_0054 MOD5. This treated wastewater is disposed on site via it's irrigation system.



To fulfil Council requirements, Dargues hosts the QPRC Council every five years to complete an inspection and recertification of site's wastewater treatment plant. Additionally, Dargues' does a monthly sampling and NATA lab analysis of the treated effluent to monitor the quality of the effluent output to the irrigation paddock.

The wastewater treatment plant is serviced by an external specialist every three months, which includes a pump out of the tanks every three years, and all aeration lines and in/ output lines are serviced and cleared during this service.

The following sub-sections present the waste minimisation and waste management measures that will be implemented throughout the life of the Project for general putrescible and non-putrescible waste.

## 4.2. WASTE MINIMISATION MEASURES

The management of waste for the Project will be based around the hierarchy of waste minimisation shown in **Figure 1**.

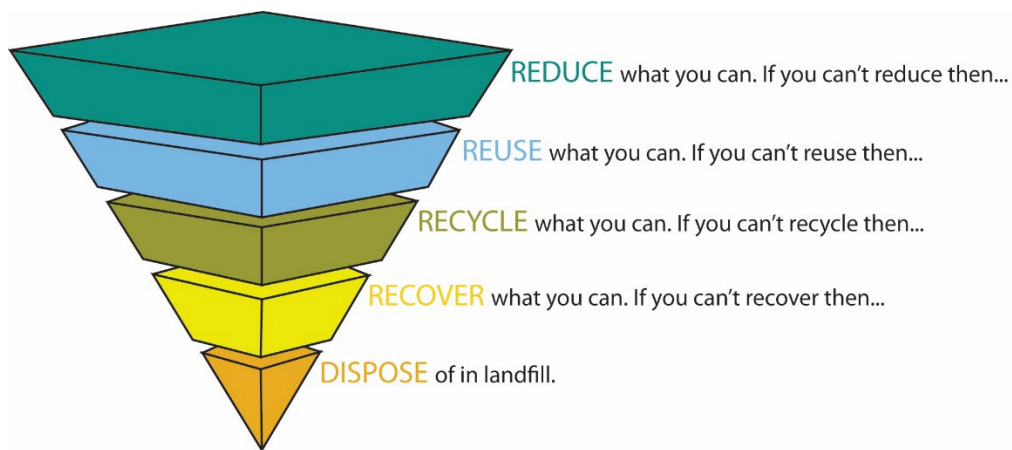


Figure 1: Waste Management Hierarchy

In summary, Dargues is committed to minimising its generation of waste, which is achieved through the following.

When purchasing products, Dargues takes into consideration the amount of waste that may be generated and therefore purchases products that produce less waste in preference to those that produce more waste. This may require purchasing products in bulk.

Where practicable, Dargues seeks products or packaging that can be reused or recycled.

Where available and practicable, the Company seeks products or packaging that can be recycled and subsequently provides sufficient storage and separation facilities to manage appropriately all material that may be recycled.

Where practicable, Dargues recovers its reusable waste from the waste stream, thereby minimising the amount of waste required to be sent to landfill.

In accordance with the above waste minimisation hierarchy, waste is separated into the various waste streams for specific management. This has the following benefits.

Reducing the potential for contamination of general waste streams.

Improved waste storage, handling, disposal and tracking.

Better education of Dargues' employees pertaining to the importance of waste stream segregation and recycling.

Improved financial benefits through successfully implemented recyclable and reuse waste streams.

Reduction in disposal costs of some waste items.

## 4.3. WASTE MANAGEMENT MEASURES

### 4.3.1. Non-Specific Waste Management Measures

The following non-specific waste management actions is implemented at Dargues:

The provision of appropriate waste disposal facilities on site.

All waste disposal facilities are clearly identified and marked according to the stream of waste accepted, which includes colour-coded bins and signage.

Information regarding waste management is included in the Site induction, which includes the importance of waste separation and management. Further, information is provided on notices and posters throughout site.

All wastes are either disposed of off-site or appropriately treated.

Site does not receive any o waste that is generated off-site. Except for the limited volume of waste generated by the Aurelia Metal's exploration activities, which is disposed of through site's waste service provision and managed in accordance with the measures described below.

### 4.3.2. Specific Waste Management Measures

**Table 3** identifies the management measures that are implemented to address Dargues' various waste streams identified in **Section 4.3.1**.

Dargues employees are regularly reminded, through toolbox talks and prestarts, of their responsibilities and obligations regarding waste minimisation and appropriate waste disposal.

TABLE 3: Waste Stream Management Measures

Waste Stream	Storage	Removal	Indicative Timing
General waste (including food scraps)	Covered bins are located within crib rooms, offices and elsewhere as required. Where these bins are located in open areas, they are fitted with animal-proof lids.	Collected on a regular basis by a licensed waste service provider and transported to a licenced waste disposal facility within the Queanbeyan - Palerang LGA. This material is not disposed of through the Majors Creek or Braidwood Waste Management Facilities (WMF).	Weekly
Waste oils and greases	Placed within banded tank(s) within the workshop area.	Collected on a regular basis by a licensed waste contractor and transported to an appropriate licensed facility for recycling or reuse.	Six Weekly
Batteries	Batteries are placed within a covered and marked used battery storage until removed from site.	Batteries are collected on a regular basis by a licensed disposal contractor and recycled at an appropriate facility.	As required
Tyres	Tyres is placed within a marked used tyre storage area until removed from site or used for another purpose.	All attempts are made to reuse tyres are on site, for things such as construction of retaining walls, erosion protection and traffic control. Of those tyres not used on site, they are removed from	As required

Waste Stream	Storage	Removal	Indicative Timing
		site and reuse or recycled at an appropriate facility.	
Scrap steel/metal	Stored in a specified area within the workshop area or ROM.	Collected on a regular basis by a scrap metal recycler and recycled at an appropriate facility.	As required
General recyclables	Covered bins are located within crib rooms, offices and elsewhere as required. Where these bins are located outside a building, they are fitted with animal proof lids.	Collected on a regular basis by a licensed recycling contractor and transported to an appropriate recycling facility within the Queanbeyan - Palerang LGA. This material is not disposed of through the Majors Creek or Braidwood WMF.	Six weekly
Used reagent and chemical containers	All containers are stored in a bunded area until cleaned or removed from site.	Where appropriate, containers are rinsed with water in accordance with the manufacturer's directions or industry best practice. Rinse water is returned to the processing circuit. Where possible, clean containers are reused or recycled, or disposed of as general waste. Where onsite rinsing/cleaning is not appropriate, used containers are removed from site for appropriate treatment off site or alternatively returned to the manufacturer for refilling and reuse	As required
Wastewater	Wastewater from ablutions facilities is treated via site's wastewater treatment plant, which has been approved and regularly inspected by the QPRC. Additionally, the Council comes to site every five years to inspect and recertify site's WTP. The treated effluent water is disposed of via site's approved irrigation paddock, which is inspected by Dargues personnel on a weekly basis. Approval from Queanbeyan-Palerang Council for the installation of two wastewater treatment facilities was granted on 6 February 2019.		Serviced in accordance with the manufacturer's recommendations

Since 2020, Braidwood Landfill no longer receives waste from Dargues, as it was transitioning into a waste transfer facility. Subsequently, and since then, all of Dargues disposable waste is removed off site by its waste management service provider and disposed of via Canberra's landfill. A deed of amendment for planning agreement with Queanbeyan-Palerang Regional Council detailing this change is in place.

#### 4.4. MONITORING

A record of quantities of waste generated for each of the waste streams is maintained and reported in the *Annual Environmental Management Report*.

A waste management audit is incorporated into regular site inspections is conducted regularly at site, to ensure waste is appropriately separated into the correct waste streams. Where the waste management audit identifies inappropriate separation of waste material, preventative or corrective actions are implemented. These may include provision of additional waste management facilities, further education of Project personnel or evaluation of site's purchasing policies to exclude products that generate excessive waste.

Site's septic systems are inspected by the Queanbeyan-Palerang Regional Council every five years, prior to their recertification. Additionally, the systems are regularly inspected by Dargues personnel to ensure no visible environmental impact is occurring, such as vegetation dieback; ground salt scolding; visible leachate; etc.

##### 4.4.1. Waste Rock Characterisation

During initial project development, Dargues completed Net Acid Generation (NAG) testing to confirm the characteristics of its waste rock, specifically to classify the materials' acid generating potential. The results found all waste rock sampled to be non-acid forming. Consequently, whilst a large volume of waste rock is used for backfilling underground, there has been some material used in the establishment of infrastructure such as site's Tailings Storage Facility, (TSF) and dam spillways.

Further testing of site's waste rock was completed in 2019, which returned similar results to those received during site's establishment. This is due in part to the lithology and geology in which the Dargues' underground operations is established, which is neutral to alkaline. The lithology and geology in which Dargues operates remains unchanged throughout its Life-of-Mine, (LOM).

## 5. PASTE FILL MANAGEMENT MEASURES

### 5.1. INTRODUCTION

Paste fill is a combination of cement and tailings that is mixed together with water to form a paste. This paste is then pumped underground to fill voids left behind following the extraction of ore during mining operations. The use of paste fill was approved on 12 July 2012 as part of Modification 1 to Project Approval 10\_0054.

As part of the modification, additional conditions were imposed at Dargues to ensure that the paste met the requirements for general solid waste (non-putrescible) under the *Waste Classification Guidelines* issued by the then Department of Environment, Climate Change and Water in December 2009. The following sub-sections outline the waste classification procedures and methodology to ensure that the paste fill meets the relevant criteria, as well as the management measures implemented.

### 5.2. CHEMICAL PROPERTIES OF PASTE FILL

#### 5.2.1. Introduction

Classification of the paste fill material was undertaken as part of the application for Modification 1 to PA10\_0054 and is described in Section 2.2.3 of RWC (2012). In summary, using the methodology provided in the *Waste Classification Guidelines*, the paste fill material is classified as general solid waste (non-putrescible).

The following sub-sections briefly describes the testing completed to classify the paste fill material and the additional test work that has been carried out to validate these results prior to the emplacement into mine voids.

#### 5.2.2. Paste Fill Characterisation

##### 5.2.2.1. Introduction

Paste fill classification was undertaken using chemical assessment and consists of two components:

- Specific Contaminant Concentration testing; and
- Toxicity Characteristics Leaching Procedure.

##### 5.2.2.2. Specific Containment Concentration

Initial screening of the tailings material which comprises approximately 97% of the paste fill material was completed using Specific Contaminant Concentration testing (SCC). To be classified as General Solid Waste, each contaminant must be less than or equal to the Contaminant Threshold (CT) described in the *Waste Classification Guidelines*. The 95% Upper Confidence Limit (UCL) for each test value obtained from the tailings material and the Contaminant Threshold (CT) for each contaminant is provided in **4**.

TABLE4: Specific Contaminant Concentrations Test Results

Contaminant	Tailings Material	Specific Containment Concentration Criteria	
	95% UCL	General Solid Waste (CT1)	Restricted Solid Waste (CT2)
Arsenic	<1	100	400
Beryllium	0.23	20	80
Cadmium	<0.05	20	80
Chromium (VI)	<1	100	400
Lead	6.41	100	400
Mercury	<0.02	4	16
Molybdenum	2	100	400
Nickel	3	40	160
Selenium	<2	20	80
Silver	<0.5	100	400

Note: All units mg/L  
Source: RWC (2012) - Table 5

It is noted that the test values for the tailings material are significantly below CT1 thresholds for General Solid Waste and as a result, the tailings material has been classified as General Solid Waste.

### 5.2.2.3. Toxicity Characteristics Leaching Procedure

Further screening of the tailings material was undertaken using the Toxicity Characteristics Leaching Procedure (TCLP) in accordance with the *Waste Classification Guidelines*. This procedure is used to determine the potential leachate that would be available from the waste material given worst case, acidic conditions.

Contaminants present in the tailings material were extracted in accordance with Australian Standard 4439.3-1997: *Wastes, Sediments and Contaminated Soils - Preparation of Leachates Bottle Leaching Procedure* using an extractant with a pH of 5. The results of this testing and the relevant criteria are presented in Table 5.

TABLE 5: Toxicity Characteristics Leaching Procedure Test

Contaminant	Tailings Material	Specific Containment Concentration Criteria	
	95% UCL	General Solid Waste (TCLP1)	Restricted Solid Waste (TCLP2)
Arsenic	<0.001	5	20
Beryllium	<0.001	1	4
Cadmium	<0.002	1	4
Chromium (VI)	<0.005	5	20
Lead	<0.0001	5	20
Mercury	0.01	0.2	0.8
Molybdenum	<0.001	5	20
Nickel	0.01	2	8

	Tailings Material	Specific Containment Concentration Criteria	
Selenium	<0.001	1	4
Silver	<0.005	5	20
Note: All units mg/L			
Source: RWC (2012) - Table 6			

It is noted that the sampled values are significantly below the TCLP thresholds for classification of the waste as General Solid Waste. Since the initial TCLP testing, its ongoing application is dependent upon if the CT1 thresholds for SCC testing are exceeded, which to-date has not occurred.

### 5.2.3. Paste Fill Monitoring

Dargues currently has in place a daily monitoring program that determines backfill strength and its solidification. Additionally, Dargues completes monthly sampling and NATA lab analysis to determine its physicals and chemical constituents.

### 5.2.4. Trigger, Actions and Response Plan

**Table 6** presents the paste fill trigger values for SCC testing that is implemented during paste filling operations at the Project.

**TABLE 6: Specific Concentration Trigger Values**

Contaminant	Paste Fill	SCC Criteria
	95% UCL Trigger Value	General Solid Waste (CT1)
Arsenic	≥100	100
Beryllium	≥20	20
Cadmium	≥20	20
Chromium (VI)	≥100	100
Lead	≥100	100
Mercury	≥4	04
Molybdenum	≥100	100
Nickel	≥40	40
Selenium	≥20	20
Silver	≥100	100
Note: All units mg/L		

Following receipt of SCC monitoring results, Dargues' reviews the data against the trigger values identified in Table 6. In the event that the data indicates that the paste fill exceeds the trigger values, the following is implemented:

- arrange for further sampling to be conducted to confirm the initial monitoring results, which includes TCLP testing; and

- cease using paste fill as soon as practicable until the reason for the exceedance of the trigger values is determined.

Following receipt of TCLP check monitoring results, Dargues will review the data against the trigger values identified in Table 7. IF the data indicates that the paste fill has exceeded the trigger values, Dargues will

immediately contact the relevant government agencies, including the Department of Planning and Environment, EPA and Queanbeyan-Palerang Council, and advise them of the preliminary results and timeframes for completion of its investigation. Paste filling will not recommence until the reason for the exceedance has been determined and measures implemented to ensure a recurrence of the exceedance does not occur.

TABLE 7: Toxicity Characteristics Leaching Procedure Trigger Values

Contaminant	Paste Fill	General Solid Waste
	95% UCL	TCLP1
Arsenic	≥5	5
Beryllium	≥1	1
Cadmium	≥1	1
Chromium (VI)	≥5	5
Lead	≥5	5
Mercury	≥0.2	0.2
Molybdenum	≥5	5
Nickel	≥2	2
Selenium	≥1	1
Silver	≥5	5

Note: All units mg/L

### 5.3. PHYSICAL PROPERTIES OF PASTE FILL

#### 5.3.1. Pre Placement Testing

##### 5.3.1.1. Slump Testing

Determining the physical properties of the paste fill is necessary to determine the behaviour of the paste fill material during placement and to demonstrate that the paste fill does not meet the requirements for liquid waste.

Currently, site completes daily monitoring of the physical properties of paste fill, which includes the following:

- Sampling of the tailings feed from the tailings thickener to the paste plant to ensure that the thickener is generating the required percentage solids for production of paste fill.

- Sampling of the paste fill from the mixer to ensure that the percentage solids, cement content and moisture content are as designed.

During commissioning of the site, samples were collected on a daily basis at the discretion of the paste fill engineer, with ongoing sampling occurring throughout the life of the operation. Sampling was conducted on a range of different paste fill mixtures, with a focus placed on sampling mixtures with low percentage solids, low cement content and high moisture content. These parameters were chosen due to having the most potential to be classified as liquid waste.

##### 5.3.1.2. Trigger, Actions and Response Plan

The triggers for identifying liquid waste are as described in the *Waste Classification Guidelines*, and include material that:

- has an angle of repose of less than 5° above horizontal;

becomes free-flowing at or below a temperature of 60°C or when it is transported; or is generally not capable of being picked up by a spade or shovel.

Following receipt of monitoring results, Dargues review the data against the identified trigger values and if the data shows that the paste fill has exceeded the trigger values, site will immediately:

- arrange for further check sampling to be undertaken to confirm the initial monitoring result;
- cease using paste fill as soon as practicable until the reason for the exceedance of the trigger values can be determined; and
- contact the Environment Protection Authority and advise them of the preliminary results and timeframes for completion of further check testing.

### 5.3.2. Post Placement Testing

Unconfined Compressive Strength testing is used to ensure that the paste fill material attains an appropriate strength, within the required time frame, to ensure both the stability of the mine and the required mining rate.

No triggers or associated response plans have been identified for post-placement strength testing in this document as this is an engineering-related issue rather than an environmental issue.

## 5.4. GENERAL PASTE FILL MONITORING

Dargues currently monitors and records on both a daily and monthly basis the characteristics of its backfill. This sampling regime is dependent upon placement activities and the hours of when the paste plant is in operation. The resultant data is included in Dargues' *Annual Review*.

The quantity, by volume, of paste fill emplaced in underground voids.

The percentage of cement, weight for weight, added to the tailings material.

The quantity, by weight, of cement emplaced underground.

The quantity, by weight, of tailings solids emplaced underground.

Hours of operation of the paste plant.

## 6. INCIDENT INVESTIGATION AND REPORTING

In the event of an accident, incident, near miss regarding waste or a waste-related complaint, Dargues will initiate an investigation. The investigation will seek to determine:

- what occurred at the time of the incident;
- the root cause of the incident;
- any contributing factors which led to the incident; and
- whether appropriate controls were implemented to prevent the incident.

Corrective and/or preventative actions will be assigned to relevant responsibilities, reflective of the outcomes of the investigation. Actions will be communicated through planning meetings and toolbox talks. If required, this Plan will be amended and all key personnel will be required to review the amended plan. Outstanding actions will be monitored for their effectiveness upon completion.

All reports associated with complaints or incidents will be retained for a period of no less than four years.

### ***Incident Notification***

The Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the project (including the application number and the name of the project if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in the notification and reporting requirements (as per Appendix 8 of the Consolidated Consent)



***Non-Compliance Notification***

The Secretary must be notified in writing via the Department's Major Projects Website within 7 days after the Applicant becomes aware of any non-compliance with the conditions of this approval. The notification must identify the project and the application number for it, set out the condition of approval that the project is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been done, or will be, undertaken to address the non-compliance.

***Incident Notification and Reporting Requirements***

- A written incident notification addressing the requirements set out below must be submitted to the Secretary via the Major Projects website within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under Condition 6 of Schedule 5 or, having given such notification, subsequently forms the view that an incident has not occurred.
- Written notification of an incident must:
  - (a) identify the project and application number;
  - (b) provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident);
  - (c) identify how the incident was detected;
  - (d) identify when the Applicant became aware of the incident;
  - (e) identify any actual or potential non-compliance with conditions of approval;
  - (f) describe what immediate steps were taken in relation to the incident;
  - (g) identify further action(s) that will be taken in relation to the incident; and
  - (h) identify a project contact for further communication regarding the incident.
- Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Secretary, the Applicant must provide the Secretary and any relevant public authorities (as determined by the Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.
- The Incident Report must include: (a) a summary of the incident; (a) outcomes of an incident investigation, including identification of the cause of the incident; (b) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and (c) details of any communication with other stakeholders regarding the incident.

**6.1. Regular Reporting**

Dargues provide regular reporting in the form of annual reviews, pertaining to its environmental performance. These reports are accessible by the public via Aurelia Metals' website. Additionally, these reports are completed in accordance with the reporting arrangements as stipulated in Dargues plans and/or programs, as approved under the conditions of this MP10\_0054 MOD 5.

**7. ROLES AND RESPONSIBILITIES**

Role	Responsibilities
General Manager	Must ensure adequate resources are available to enable implementation of the Plan.
Mining Manager	Accountable for the overall environmental performance of the Project, including the outcomes of this Plan.

Role	Responsibilities
Environment and Community Superintendent	Ensure the implementation of this Plan. Ensure employees are competent through training and awareness programs.
All Personnel	Ensure correct segregation and disposal of wastes to the correct waste streams.

## 8. COMPETENCE TRAINING AND AWARENESS

All Dargues employees and contractors undergo waste minimisation and disposal training. Waste management is a component of the competency-based site induction program. The following areas are covered in the induction.

The fundamentals of the waste minimisation strategy and Project personnel's obligations to reduce generated waste.

Identification of waste streams generated onsite and their correct disposal.

Paste fill management and use.

The Environment and Community Superintendent shall be responsible for ensuring the appropriate waste management training is included in the induction.

## 9. REVIEW

In accordance with Condition 5(4) of MP10\_0054 MOD5, this Plan will be reviewed and, if required, revised within 3 months of:

- the submission of an annual review under Condition 5(3);
- the submission of an incident report under Condition 5(6);
- the submission of an audit report under Condition 5(8); and
- any modification to the conditions of MP10\_0054.

This review will include the adequacy of strategies, plans and programs as required under the Project Approval. Recommendations for appropriate measures or actions to improve the environmental performance of the Project and/or any assessment, plan or program will be incorporated into this Plan.

### 9.1. Independent Environmental Audit

In accordance with Schedule 5, Conditions 8 and 9 of MP10\_0054 MOD5, Dargues engages and conducts an Independent Environmental Audit every two years, (the latest was completed in 2021, with the next due in 2023), which fulfils the following:

Conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

include consultation with the relevant agencies;

assess the environmental performance of the project and assess whether it is complying with the requirements in this approval and any relevant EPL or Mining Lease, (including any assessment, plan or program required under these approvals);

review the adequacy of strategies, plans or programs required under the above-mentioned approvals; and

recommend appropriate measures or actions to improve the environmental performance of the project, and/ or any assessment, plan or program required under the abovementioned approvals.

Within eight weeks of the completion of site's independent environmental audit, or as otherwise agreed by the Secretary, site shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report. Additionally, the report is made available via Aurelia Metals' website within 60 days of the report's submission to the Secretary.