

Table 1: Outcomes and measurement criteria: public safety

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must during construction and operation, ensure that unauthorised entry to the Land / site does not result in public injuries and or deaths that could have been reasonably prevented.</b></p> <p><b>The Tenement Holder must demonstrate that post completion, the risks to the health and safety of the public so far as it may be affected by mining / ancillary operations are as low as reasonably practicable.</b></p>	<p>Unauthorised access to the Development by member of public results in injury or death.</p>	<ul style="list-style-type: none"> <li>During construction and operation, the ML or mining operations within the ML will be fenced and signed to identify the active mining area and that no unauthorised access is allowed</li> <li>Limited access via the main security gate can be attained by any visitors including landowners. The boom gate will control access into the administration area, processing plant and active mining area</li> <li>Appropriate signage will be installed to direct all people and deliveries accessing the site to the correct areas and personnel will be on-site at all times during construction and operations to prevent any unauthorised access to the site</li> <li>Implementation of an infrastructure monitoring program, incorporating: <ul style="list-style-type: none"> <li>Periodic inspection and maintenance of site fencing, signage, security cameras and fence controls</li> <li>Regular monitoring of landform structures for failures or faults</li> <li>Regular auditing of site security and the use of flammable and combustible liquids.</li> </ul> </li> <li>Detailed assessment of slope stability during closure and implementation of any work required to stabilise the mining pits</li> <li>Safety bund and signage around the pits outside geotechnical risk zone</li> <li>Prior to mine completion, arrangements will be put in place to the satisfaction of regulators and in consultation with stakeholders to transfer liability for the ongoing maintenance of fences, bunds or any facilities needed to ensure the risk to public safety from the open pits and any other residual hazards on the Development area is ALARP.</li> </ul>	<p>Independent investigation of all incidents that result in injury or death to a member of the public are completed in 14 days, or as agreed with the Director of Mines (or other authorised officer) and demonstrate that the mine operator could not have reasonably prevented the incident (injury or death) from occurring.</p>	<p>Annual safety audit does not identify additional actions that could reasonably be taken to reduce risks to the public.</p>
<p><b>The Tenement Holder must during construction and operation, ensure that unauthorised entry to the Land / site does not result in public injuries and or deaths that could have been reasonably prevented.</b></p> <p><b>The Tenement Holder must during construction and operation, ensure that there are no adverse impacts to adjacent land use and no unauthorised damage to third party property and infrastructure as a result of fires caused by mining operations that could have been reasonably prevented.</b></p> <p><b>The Tenement Holder must during construction and operation ensure that there are no public injuries and or deaths, no adverse impacts to adjacent land use and no unauthorised damage to public or third party private property and infrastructure as a result of fires caused by ancillary operations that could have been reasonably prevented.</b></p>	<p>Fire originating from within the Development area results in injuries or fatalities to members of the public.</p>	<ul style="list-style-type: none"> <li>Implementation of fire management procedures in consultation with surrounding landowners, the Country Fire Service (CFS) and the relevant District Bushfire Prevention Committee(s) that will, as a minimum, include: <ul style="list-style-type: none"> <li>Emergency response procedures</li> <li>Provision of fire suppression equipment</li> <li>Construction schedule restrictions around fire weather</li> <li>Stop work procedures for high-risk activities on high fire danger days</li> <li>On-site vegetation maintenance including fuel management zones</li> <li>Access requirements for emergency equipment, vehicles and machinery</li> <li>Induction and training of on-site personnel</li> <li>Maintenance of all machinery on site in good condition, including exhaust systems</li> <li>Provision of all requested information to the CFS, such as construction schedules, maps identifying the location of infrastructure and access roads, keys to gated areas and the location of available water supplies.</li> </ul> </li> <li>Equipment maintenance, staff awareness, stop work procedures for high-risk activities on high fire danger days</li> <li>Firefighting equipment, including hydrants and a water truck, will be on-site at all times together with trained personnel.</li> </ul>	<p>Independent investigation of all incidents that result in injury or death to a member of the public are completed in 14 days, or as agreed with the Director of Mines (or other authorised officer) and demonstrate that the mine operator could not have reasonably prevented the incident (injury or death) from occurring.</p>	<p>Annual safety audit does not identify additional actions that could reasonably be taken to reduce risks to the public.</p>
<p><b>The Tenement Holder must during construction and operation, ensure that there are no adverse impacts to:</b></p> <ul style="list-style-type: none"> <li>public safety;</li> <li>human comfort;</li> <li>third party property (including stock);</li> <li>adjacent land use; and</li> <li>aircraft</li> </ul> <p><b>from airblast, flyrock and vibration caused by blasting.</b></p>	<p>Adverse impacts to public safety, human comfort, third party (including livestock), adjacent land use, aircraft or other receptors from blasting required for mining.</p> <p>Vibrations from blasting operations impact on local residents.</p>	<ul style="list-style-type: none"> <li>Blasting undertaken by a qualified professional with appropriate blasting procedures in place. Exclusion zone implemented, if necessary</li> <li>Blast design completed prior to blasting and signed off by a competent person.</li> </ul>	<p>All blasting in accordance with Australian Standard AS2187.2.2006 'Use of explosive', and demonstrates vibration levels caused by blasting are less than 5 mm/s peak particle velocity at the nearest sensitive receptor for 95% of blasts per year, with a maximum of 10 mm/s peak particle velocity for any one blast, or higher limit as agreed with individual sensitive receptors.</p> <p>All blasting in accordance with Australian Standard AS2187.2.2006 'Use of explosive' and demonstrates peak air-overpressure level caused by blasting are less than 115 dBL at the nearest sensitive receptor for 95% of blasts per year, with a maximum of 120 dBL or higher limit as agreed with individual sensitive receptors.</p>	<p>Annual safety audit does not identify additional actions that could reasonably be taken to reduce risks to the public.</p>

Table 2: Outcomes and measurement criteria: traffic

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must during construction and operation and ensure that there are no traffic accidents involving the public and mine related traffic that could have been reasonably prevented by the Tenement Holder.</b></p>	<p>Mine-related traffic increases road safety risk for local residents and other road users.</p> <p>Construction of the pipeline inconveniences local residents and other road users.</p>	<ul style="list-style-type: none"> <li>Liaison with Karcultaby Area School to discuss any impacts to bus routes due to road closures or traffic movements. Haulage trucks will be halted during the time of school bus runs along Poochera – Port Kenny Road</li> <li>Slow-moving heavy equipment deliveries will be scheduled to arrive outside peak traffic periods and to avoid potential conflict times identified during harvest season (where possible)</li> <li>Management of a construction program to reduce peak traffic generation and / or avoid peak traffic periods to minimise traffic delay to the public, if required</li> <li>Designated delivery transport routes for heavy vehicle and light vehicles</li> <li>Implementation of incident reporting system for the management of traffic improvement measures</li> <li>In consultation with DCSB, prior notice of road closures will be given to local road users</li> <li>Implementation of training and awareness of local traffic conditions for all staff through site induction process</li> <li>Implementation of traffic signage for increased awareness of mine traffic</li> <li>Pipeline off-set nominally 4 m from carriageway. Where possible pipeline route is further away from the public road to provide an increased buffer distance to the worksite</li> <li>Implementation of a construction environmental management plan for construction of the water pipeline</li> <li>Implementation of traffic management and/or road detours in consultation with DCSB if required.</li> </ul>	<p>Independent investigation of all traffic accidents involving the public are completed in 14 days, or as agreed with the Director of Mines, and demonstrate that the mine operator could not have reasonably prevented the accident from occurring.</p> <p>Evidence that traffic management forms part of construction environmental management plan for pipeline construction.</p>	<p>None required.</p>

Table 3: Outcomes and measurement criteria: fauna and pest species

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must ensure that there are no native fauna injuries or deaths due to mining / ancillary operations that could have been reasonably prevented.</b></p>	<p>Clearance of native vegetation results in reduction of habitat for fauna.</p> <p>Clearance of native vegetation results in reduction of habitat for EPBC listed or NPW listed threatened species.</p>	<ul style="list-style-type: none"> <li>All clearance of native vegetation (fauna habitat) authorised and a Significant Environmental Benefit (SEB) provided</li> <li>Pre-clearance relocation of fauna where practicable</li> <li>Remaining native vegetation to be fenced and signed as an exclusion zone</li> <li>Appropriate waste hygiene and disposal practices. All waste suitably contained to prevent access by fauna</li> <li>Sanitary control measures (e.g. procedures to be developed when entering adjacent Crown land covered by Native Vegetation Heritage Agreement (HA) 511)</li> <li>All equipment inspected prior to entering the site</li> <li>Monitoring of pest species on-site and undertaking control measures if necessary</li> <li>Induction program and ongoing training for mine employees to emphasise importance of prevention and control measures</li> <li>Development and implementation of strategies to ensure appropriate consideration is given to the Dinosaur Ant (<i>Nothomyrmecia macrops</i>) on the Land.</li> </ul>	<p>Audit/reconciliation of the disturbance undertaken during construction and operations demonstrates compliance with <i>Native Vegetation Act 1991</i> (SA) and SEB plan.</p>	<p>None required.</p>
	<p>Clearance of native vegetation results in direct mortality of fauna.</p> <p>Direct mortality of fauna as a result of vehicle strike.</p>	<ul style="list-style-type: none"> <li>All clearance of native vegetation (fauna habitat) authorised, and a Significant Environmental Benefit (SEB) provided</li> <li>Pre-clearance relocation of fauna where practicable</li> <li>Remaining native vegetation to be fenced and signed as an exclusion zone</li> <li>Speed limit reduced within the Mining Lease (ML) to minimise risk of fauna impacts.</li> </ul>	<p>Investigations of all native fauna deaths or injuries recorded as a result of mine related activities demonstrate that the mine operator did not cause, or could not have reasonably prevented, the deaths or injuries occurring.</p>	<p>None required.</p>
	<p>Noise/vibration in Development area impacts native fauna.</p>	<ul style="list-style-type: none"> <li>All equipment inspected prior to entering the site</li> <li>Maintenance of machinery to minimise unnecessary disturbing noise sources</li> <li>Noise sources located as far as practicable from noise sensitive receptors</li> <li>Selection and maintenance of vehicles and equipment will be compliant with current noise standards</li> <li>Equipment will be shut off or throttled down whenever it is not in actual use</li> <li>Noise reduction devices such as mufflers will be fitted and will operate effectively and with white noise reversing alarm</li> <li>Equipment will be serviced regularly and equipment in need of repair will not be used</li> <li>Equipment will be operated, and materials handled in a way as to minimise the impact of noise</li> <li>Blasting procedures will be implemented in accordance with Australian Standard (AS) 2187.2-2006</li> <li>Preliminary maximum charge weights will be confirmed and are predicted to comply with Australian Standard (AS) 2187.2-2006</li> </ul>	<p>Investigations of all native fauna deaths or injuries recorded as a result of mine related activities demonstrate that the mine operator did not cause, or could not have reasonably prevented, the deaths or injuries occurring.</p>	<p>None required.</p>
	<p>Fauna captured in temporary open trenches/excavations results in potential mortality.</p>	<ul style="list-style-type: none"> <li>Trenches will only remain open for the minimum time required</li> <li>Any open holes remaining open for an extended time will be capped to prevent access.</li> </ul>	<p>Investigations of all native fauna deaths or injuries recorded as a result of mine related activities demonstrate that the mine operator did not cause, or could not have reasonably prevented, the deaths or injuries occurring.</p>	<p>None required.</p>
	<p>Fires caused by Development activities result in injury or death to fauna.</p>	<ul style="list-style-type: none"> <li>Develop and implement fire management procedures in consultation with surrounding landowners, the Country Fire Service (CFS) and the relevant District Bushfire Prevention Committee(s) that will, as a minimum, include:                             <ul style="list-style-type: none"> <li>Emergency response procedures</li> <li>Provision of fire suppression equipment</li> <li>Construction schedule restrictions around fire weather</li> <li>Stop work procedures for high-risk activities on high fire danger days</li> <li>On-site vegetation maintenance including fuel management zones</li> <li>Access requirements for emergency equipment, vehicles and machinery</li> <li>Induction and training of on-site personnel</li> <li>Maintenance of all machinery on site in good condition, including exhaust systems</li> <li>Provision of all requested information to the CFS, such as construction schedules, maps identifying the location of infrastructure and access roads, keys to gated areas and the location of available water supplies.</li> </ul> </li> <li>Equipment maintenance, staff awareness, stop work procedures for high-risk activities on high fire danger days</li> <li>Firefighting equipment, including hydrants and a water truck, will be on-site at all times together with trained personnel.</li> </ul>	<p>Investigations of all native fauna deaths or injuries recorded as a result of mine related activities demonstrate that the mine operator did not cause, or could not have reasonably prevented, the deaths or injuries occurring.</p>	<p>None required.</p>
<p><b>The Tenement Holder must during construction and operation ensure no introduction of new species of environmental weed, plant pathogens or pests (including feral animals), nor sustained increase in abundance of existing weed or pest species on the Land.</b></p>	<p>Increased populations of pest animal species as a result of mining operations (e.g. attracted to putrescible waste) results in increased competition with, or predation upon fauna.</p> <p>Introduction or sustained increase of new species of weeds and plant pathogens impacts on fauna.</p>	<ul style="list-style-type: none"> <li>Appropriate waste hygiene and disposal practices. All waste suitably contained to prevent access by fauna</li> <li>All equipment cleaned and free from weeds and seeds with confirmatory inspection prior to entering the site</li> <li>Monitoring of pest species on-site and undertaking control measures if necessary</li> <li>Sanitary control measures (e.g. procedures to be developed when entering adjacent Crown land covered by Native Vegetation Heritage Agreement (HA) 511).</li> <li>Induction program and ongoing training for mine employees to emphasise importance of prevention and control measures.</li> </ul>	<p>Annual survey demonstrates:</p> <ul style="list-style-type: none"> <li>No new weeds or feral animals have become established on the mine site.</li> <li>There has not been a statistically significant increase in abundance of existing weed or pest species in the mine site area, compared to baseline studies and accounting for seasonal variation (regional trends) and pit areas.</li> </ul>	<p>None required.</p>

Table 4: Outcomes and measurement criteria: flora and native vegetation

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must ensure there is no loss of abundance and/or diversity of native vegetation on or off the Land through clearance unless a Significant Environmental Benefit has been approved in accordance with the relevant legislation.</b></p> <p><b>Explanatory Note: the legislation that applies to this outcome is the Native Vegetation Act 1991.</b></p>	Clearance of native vegetation resulting in loss of species and communities.	<ul style="list-style-type: none"> <li>All clearance of native vegetation authorised and SEB provided</li> <li>Remaining native vegetation to be fenced and signed as an exclusion zone</li> <li>Vegetation to be retained on site where possible</li> <li>Rehabilitation and revegetation to occur as soon as practicable. Progressive rehabilitation to be undertaken during the life of the mine, where practicable.</li> </ul>	Audit/reconciliation of the disturbance undertaken during construction and operations demonstrates compliance with <i>Native Vegetation Act 1991</i> (SA) and SEB plan.	None required.
<p><b>The Tenement Holder must, during construction and operation, ensure there are no adverse impacts to third-party land use or property, including mains water infrastructure, on or off the Land, as a result of mining operations.</b></p>	Dust from construction and mining operations (including closure) impacts native vegetation in areas surrounding the Development.	<ul style="list-style-type: none"> <li>Ongoing air quality monitoring around the ML</li> <li>Implementation of Dust Management Plan</li> <li>Minimise drop heights for materials movements</li> <li>Use of water trucks, where appropriate, on unpaved roads or other exposed areas if required</li> <li>Vehicle speed limits will be managed in accordance with construction traffic management procedures and site conditions to mitigate wheel-generated dust</li> <li>Ongoing maintenance of haul roads</li> <li>Topsoil stockpiles limited to 2 m and minimise duration of storage</li> <li>Dust suppression via appropriate design of the final landform and the establishment of vegetation and potential crops</li> <li>Cover will use suitable retained topsoil and be applied at an appropriate depth</li> <li>Appropriate mix of cover material to resist erosion</li> <li>Mulching and encouragement of rapid revegetation</li> <li>Stabilisation of soils on site through establishment of grass cover on non-native vegetation areas.</li> </ul>	Annual dust deposition on a representative number of adjoining properties does not exceed 4 g/m <sup>2</sup> /month and no more than 2 g/m <sup>2</sup> /month above background.	Monthly dust deposition greater than 4 g/m <sup>2</sup> /month.
<p><b>The Tenement Holder must during construction and operation ensure no introduction of new species of environmental weed, plant pathogens or pests (including feral animals), nor sustained increase in abundance of existing weed or pest species on the Land.</b></p>	Introduction or sustained increase of new species of weeds, plant pathogens or pests (including feral animals), impacts on flora.	<ul style="list-style-type: none"> <li>All equipment cleaned and inspected prior to entering the site</li> <li>Sanitary control measures (e.g. procedures to be developed when entering adjacent Crown land covered by Native Vegetation Heritage Agreement (HA) 511)</li> <li>Monitoring of pest species on-site and undertaking control measures if necessary</li> <li>Induction program and ongoing training for mine employees to emphasise importance of prevention and control measures</li> <li>Revegetate long-term soil stockpiles to minimise weed infestation, maintain soil organic material, structure and microbial activity, and reduce erosion</li> <li>Weed monitoring and control program in consultation with surrounding landowners where sensible.</li> </ul>	Annual survey demonstrates: <ul style="list-style-type: none"> <li>No new weeds or feral animals have become established on the mine site.</li> <li>There has not been a statistically significant increase in abundance of existing weed or pest species in the mine site area, compared to baseline studies and accounting for seasonal variation (regional trends) and pit areas.</li> </ul>	None required.
<p><b>The Tenement Holder must ensure that the Land is progressively and finally rehabilitated to support the future land use agreed by the Director of Mines (or other authorized officer).</b></p>	Poor rehabilitation of mine site (including as a result of degradation of topsoils and seedbanks during stockpiling) impacts future land uses including native vegetation and agricultural productivity (due to wind or water erosion, or failure of rehabilitation management).	<ul style="list-style-type: none"> <li>Cover will use suitable retained topsoil and be applied at an appropriate depth</li> <li>Appropriate mix of cover material to resist erosion</li> <li>Mulching and encouragement of rapid revegetation</li> <li>Stabilisation of soils on site through establishment of grass cover on non-native vegetation areas.</li> </ul>	Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.	Evidence of establishment of native plant species on designated rehabilitation areas 12 months after progressive rehabilitation.  Evidence of recruitment of key plant species demonstrated at rehabilitation sites within five years of progressive rehabilitation.
<p><b>The Tenement Holder must ensure there is no loss of abundance and/or diversity of native vegetation on or off the Land through clearance unless a Significant Environmental Benefit has been approved in accordance with the relevant legislation.</b></p> <p><b>Explanatory Note: the legislation that applies to this outcome is the Native Vegetation Act 1991.</b></p>	Unauthorised off-road vehicle use impacts on native vegetation.	<ul style="list-style-type: none"> <li>During construction and operation, the ML or mining operations within the ML will be fenced and signed to identify the active mining area and that no unauthorised access is allowed</li> <li>Limited access via the main security gate can be attained by any visitors including landowners. The boom gate will control access into the administration area, processing plant and active mining area</li> <li>Appropriate signage will be installed to direct all people and deliveries accessing the site to the correct areas and personnel will be on-site at all times during construction and operations to prevent any unauthorised access to the site</li> <li>Implementation of an infrastructure monitoring program, incorporating periodic inspection and maintenance of site fencing, signage, security cameras and fence controls</li> <li>Control of access to mine site</li> <li>Staff awareness of vehicle use restrictions and penalties for non-compliance.</li> </ul>	Incident triggered as a result of unauthorised off-road vehicle use.	None required.

Table 5: Outcomes and measurement criteria: air quality

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERION	DRAFT LEADING INDICATOR CRITERION
<p><b>The Tenement Holder must during construction, operation and post completion, ensure no impacts to agricultural productivity for third party land users on or off the Land as a result of dust generated from mining operations, other than those agreed between the Tenement Holder and the affected user.</b></p>	<p>Dust from construction and mining activities on land outside of the Development area boundary impacts agricultural productivity.</p>	<ul style="list-style-type: none"> <li>Dust Management Plan, including visual inspection of the overburden stockpile, and any evidence of nuisance dust generation and corrective actions undertaken documented and reported in annual environment reports</li> <li>Dust suppression via appropriate design of the final landform and the establishment of vegetation and potential crops</li> <li>Use of water trucks and dust suppression agents, where appropriate, on unpaved roads or other exposed areas if required</li> <li>Vegetation to be retained on-site where possible. Rehabilitation and revegetation to occur as soon as practicable. Progressive rehabilitation of the overburden landform to be undertaken during the life of the mine</li> <li>Minimise drop heights for material movements</li> <li>Collected in-pit water from rainfall will be stored and used for dust suppression</li> <li>Vehicle speed limits will be managed in accordance with construction traffic management procedures and site conditions to mitigate wheel-generated dust</li> <li>Ongoing maintenance of haul roads.</li> </ul>	<p>Annual dust deposition on a representative number of adjoining properties does not exceed 4 g/m<sup>2</sup>/month and no more than 2 g/m<sup>2</sup>/month above background.</p>	<p>Monthly dust deposition greater than 4 g/m<sup>2</sup>/month.</p>
	<p>Dust from mine site post-closure impacts agricultural productivity.</p>	<ul style="list-style-type: none"> <li>Cover will use suitable retained topsoil and be applied at an appropriate depth</li> <li>Appropriate mix of cover material to resist erosion</li> <li>Mulching and encouragement of rapid revegetation</li> <li>Stabilisation of soils on site through establishment of grass cover on non-native vegetation areas.</li> </ul>	<p>Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.</p>	<p>None required.</p>
<p><b>The Tenement Holder must during construction, operation and post completion, ensure no public health impacts from air emissions and/or dust generated by mining operations.</b></p>	<p>Dust from construction and mining activities impacts human health (public).</p>	<ul style="list-style-type: none"> <li>Ongoing air quality monitoring around the ML</li> <li>Implementation of Dust Management Plan, including Trigger and Response Plan</li> <li>Dust suppression via appropriate design of the final landform and the establishment of vegetation and potential crops</li> <li>Minimise drop heights for materials movements</li> <li>Topsoil stockpiles limited to 2 m and minimise duration of storage</li> <li>Use of water trucks, where appropriate, on unpaved roads or other exposed areas if required</li> <li>Vehicle speed limits will be managed in accordance with construction traffic management procedures and site conditions to mitigate wheel-generated dust</li> <li>Ongoing maintenance of haul roads.</li> </ul>	<p><b>PM10</b> 24-hour PM10 particulate concentrations at a representative number of sensitive receptor locations comply with the SA Environment Protection (Air Quality) Policy 2016 24-hour average PM10 concentration of 50 µg/m<sup>3</sup>.</p> <p>The total PM10 dust concentration (including both ambient and mine related dust) leaving the site is less than 25 µg/m<sup>3</sup> as an annual average for any 12 month period.</p> <p><b>PM2.5</b> 24-hour and annual PM2.5 particulate concentrations at a representative number of sensitive receptor locations comply with the SA Environment Protection (Air Quality) Policy 2016 (1 Sep 16) 24-hour average PM2.5 concentration of 25 µg/m<sup>3</sup> and annual average PM2.5 concentration of 8 µg/m<sup>3</sup>.</p> <p>The total PM2.5 dust concentration (including both ambient and mine related dust) leaving the site is less than 8 µg/m<sup>3</sup> as an annual average for any 12 month period.</p> <p><b>CLOSURE CRITERIA</b> Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.</p>	<p><b>PM10</b> PM10 particulate concentrations at sensitive receptor locations exceed 50 µg/m<sup>3</sup> over 12 hours. 6 month average PM10 exceeds 25 µg/m<sup>3</sup>.</p> <p><b>PM2.5</b> PM2.5 particulate concentrations at sensitive receptor locations exceed 25 µg/m<sup>3</sup> over 12 hours. 6 month average PM2.5 exceeds 8 µg/m<sup>3</sup>.</p>
	<p>Dust from mine site post-closure impacts human health (public).</p>	<ul style="list-style-type: none"> <li>Cover will use suitable retained topsoil and be applied at an appropriate depth</li> <li>Appropriate mix of cover material to resist erosion</li> <li>Mulching and encouragement of rapid revegetation</li> <li>Stabilisation of soils on site through establishment of grass cover on non-native vegetation areas.</li> </ul>	<p>Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.</p>	<p>None required.</p>
<p><b>The Tenement Holder must during construction and operation ensure there are no public nuisance impacts from air emissions, and/or dust generated as a result of mining operations.</b></p>	<p>Dust from construction and mining activities impacts on public amenity (nuisance).</p>	<ul style="list-style-type: none"> <li>Ongoing air quality monitoring around the ML</li> <li>Implementation of Dust Management Plan, including Trigger and Response Plan</li> <li>Minimise drop heights for materials movements</li> <li>Use of water trucks, where appropriate, on unpaved roads or other exposed areas if required</li> <li>Vehicle speed limits will be managed in accordance with construction traffic management procedures and site conditions to mitigate wheel-generated dust</li> <li>Ongoing maintenance of haul roads.</li> </ul>	<p>Annual dust deposition on a representative number of adjoining properties does not exceed 4 g/m<sup>2</sup>/month and no more than 2 g/m<sup>2</sup>/month above background.</p>	<p>Monthly dust deposition greater than 4 g/m<sup>2</sup>/month.</p>
	<p>Dust from the mine site post-closure impacts on public amenity (nuisance).</p>	<ul style="list-style-type: none"> <li>Cover will use suitable retained topsoil and be applied at an appropriate depth</li> <li>Appropriate mix of cover material to resist erosion</li> <li>Mulching and encouragement of rapid revegetation</li> <li>Stabilisation of soils on site through establishment of grass cover on non-native vegetation areas.</li> </ul>	<p>Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.</p>	<p>None required.</p>

Table 6: Outcomes and measurement criteria: soil and land quality

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must during construction, operation and post completion ensure that the existing (pre-mining) soil quality and quantity is maintained.</b></p> <p><b>The Tenement Holder must, ensure that:</b></p> <ul style="list-style-type: none"> <li>• There is no contamination of land and soils either on or off site as a result of mining operations; and</li> <li>• No contamination of land and soils either on or off site after mine completion occurs as a result of mining operations.</li> </ul>	Acid and/or metalliferous seepage from overburden stockpile(s) impacts on soils and land quality outside of the ML.	<ul style="list-style-type: none"> <li>• Clearance approvals signed off by appropriate site management prior to any clearance activities</li> <li>• Soil management practices to be employed should significant volumes of PAF material be identified in disturbance areas</li> <li>• Construction Environmental Management Plan includes process for identifying and managing any potential acid sulfate soils or identified PAF.</li> </ul>	Annual mine records demonstrate all areas of Potential for Acid Formation (PAF) encountered were appropriately contained and/or treated.	None required.
	Incorrect soil management practices impact soils and land quality.	<ul style="list-style-type: none"> <li>• Soil management practices including for stockpiles of less than 2 m height for those containing viable native vegetation seed, topsoil and subsoil stored separately, procedures for management of dispersive soils, potential for vegetation/hydro mulch cover over stockpiles and maintenance of topsoil inventory</li> <li>• Procedures to be developed for identification and management of dispersive soils, including soils with elevated levels of boron</li> <li>• Soils ripped beneath compacted areas during site rehabilitation to facilitate nutrient cycling and biological processes to support agriculture or revegetation</li> <li>• Vehicle movements limited to predetermined haul routes and light vehicle roads to minimise vehicle compaction of soil.</li> </ul>	Annual review of soil movement records, including topsoil available / stockpiled for closure, shows no measurable decline in soil quality or quantity.	None required.
	Compaction from establishment of roads, foundations and hardstand areas impacts soils and land quality.	<ul style="list-style-type: none"> <li>• Vehicle movements limited to predetermined haul routes and light vehicle roads to minimise vehicle compaction of soil</li> <li>• Soils ripped beneath compacted areas during site rehabilitation to facilitate nutrient cycling and biological processes to support agriculture or revegetation.</li> </ul>	Ecosystem Function Analysis (or similar) of rehabilitation areas demonstrates they will achieve critical thresholds for sustainability.	None required.
	Contamination of land from spills, leaks and other uncontrolled releases impacts soils and land quality.	<ul style="list-style-type: none"> <li>• Appropriate storage and handling of hydrocarbons and chemicals to prevent spillage to soils</li> <li>• Spill response plans and clean up kits will be available to control any potential spillage in containment areas and prevent impacts to soil</li> <li>• Bunding around any hazardous materials to prevent spillage to soils in accordance with appropriate legislation, standards and guidelines</li> <li>• Fuel and lubricant storage and dispensing facilities designed and installed in accordance with:                             <ul style="list-style-type: none"> <li>– Australian Standard (AS) 1940-2004: The storage and handling of flammable and combustible liquids</li> <li>– AS 1692-2006: Steel tanks for flammable and combustible liquids</li> <li>– Relevant South Australian legislation</li> <li>– Best practice guidelines.</li> </ul> </li> </ul>	<p>All chemical and hydrocarbon spills greater than 20 L are remediated to meet EPA standards within 48 hours of the spill, or a longer time agreed by the Director of Mines.</p> <p><b>CLOSURE CRITERIA</b> Prior to lease surrender, a site contamination assessment and if required remediation in accordance with the National Environmental Protection (Assessment of Site Contamination) Measure 1999 (NEPM) and relevant EPA legislation/guidelines will be undertaken.</p>	None required.

Table 7: Outcomes and measurement criteria: groundwater

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<p><b>The Tenement Holder must, ensure that there is no adverse impact to the quantity and quality of groundwater available to existing users and groundwater dependent ecosystems as a result of mining operations.</b></p>	Impact to existing groundwater users as a result of the Development.	<ul style="list-style-type: none"> <li>• Implementation of a groundwater monitoring program of bores located within and around the Development area, measuring quantity and quality of groundwater, including hydrocarbon concentration</li> <li>• Soil management practices to be employed should significant volumes of PAF material be identified in disturbance areas</li> <li>• Construction Environmental Management Plan includes process for identifying and managing any potential acid sulfate soils or identified PAF</li> <li>• Rainwater and any seepage collected in the pit to be managed with normal pit sumps and small submersible pumps and small diameter pipelines.</li> </ul>	<p>The Tenement Holder is required to address the following matters for the purposes of Regulation 63(1)(c) of the Regulations in relation to the Fourth Schedule clause 19:</p> <ul style="list-style-type: none"> <li>• Establish monitoring of groundwater quantity and quality to demonstrate mining operations do not adversely impact existing groundwater users, groundwater dependent ecosystems, and any other requirements determined through consultation with the Mining Regulator</li> <li>• Defined measurement criteria are to be developed in consultation with hydrogeologists.</li> </ul>	To be developed in consultation with hydrogeologists.

Table 8: Outcomes and measurement criteria: noise and vibration

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<b>The Tenement Holder must during construction, operation and post completion ensure that noise emanating from operations is in accordance with the current amenity as defined by the Environment Protection (Noise) Policy 2007 and the relevant land use zoning as defined by the Planning, Development and Infrastructure Act 2016 at the date the Mining Lease was granted.</b>	Noise impacts to local residents as a result of construction activities. Noise impacts to local residents as a result of mining and processing operations Noise impacts to local residents as a result of closure activities (removal and equipment and earthworks)	<ul style="list-style-type: none"> <li>Noise sources have been located as far as practicable from noise sensitive receptors</li> <li>Selection and maintenance of vehicles and equipment will be compliant with current noise standards</li> <li>Equipment will be shut off or throttled down whenever it is not in actual use</li> <li>Noise reduction devices such as mufflers will be fitted and will operate effectively and with white noise reversing alarm</li> <li>Equipment will be serviced regularly and equipment in need of repair will not be used</li> <li>Equipment will be operated, and materials handled in a way as to minimise the impact of noise</li> <li>Blasting procedures implemented in accordance with Australian Standard (AS) 2187.2-2006</li> <li>Preliminary maximum charge weights will be confirmed and are predicted to comply with Australian Standard (AS) 2187.2-2006.</li> </ul>	Noise generated from the ML during construction, operations and closure measured for or at, all sensitive receptors in accordance with the Environment Protection (Noise) Policy 2007 and as per the <i>Planning, Development and Infrastructure Act 2016</i> for a Primary Production Zone.	All noise complaints acknowledged in 48 hours and all reasonable efforts to rectify the cause.

Table 9: Outcomes and measurement criteria: visual amenity

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<b>The Tenement Holder must during construction, operation and post completion, ensure that the form, contrasting aspects and reflective aspects of mining operations are visually softened to blend in with the surrounding landscape.</b>	Visual amenity impacts to the local residents / community as a result of the Development.	<ul style="list-style-type: none"> <li>Water carts will be used during construction to minimise dust and dust suppression compounds will be utilised where appropriate</li> <li>Vegetation clearance will be limited to approved areas and will be managed through implementation of the flora and fauna sections of the approved PEPR</li> <li>Rehabilitation and revegetation of the overburden stockpile will be progressed as it is developed to reduce dust and erosion and to soften the impact of overburden stockpile</li> <li>Construction equipment will be demobilised from site as soon as practicable to minimise affect to visual amenity</li> <li>Speed limits and controlled access of vehicles will be enforced</li> <li>Site based Dust Management Plan to include:                             <ul style="list-style-type: none"> <li>Water carts will be used during construction to minimise dust and dust suppression compounds will be utilised where appropriate</li> <li>Speed limits and controlled access of vehicles will be enforced</li> <li>Take into consideration adverse weather conditions</li> <li>Trigger and Response Plan.</li> </ul> </li> </ul>	Post construction audits of buildings and annual audits of the overburden stockpile confirm they comply with design parameters.	None required.
<b>The Tenement Holder must during construction and operation ensure that there are no public nuisance impacts from light spill generated by mining operations.</b>	Visual amenity impacts to the community from lighting.	<ul style="list-style-type: none"> <li>Night-time lighting to be restricted to levels required to provide safe working conditions and in alignment with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting where applicable</li> <li>Small site with no mining overnight. Discreet lighting for processing plant. Processing plant not in direct line of sight to closest receptors (hidden by overburden stockpile).</li> </ul>	Inspection by suitably qualified personnel against the parameters of visual amenity related to obtrusive effects of outdoor lighting.	All lighting complaints acknowledged in 48 hours and all reasonable efforts to rectify the cause.

Table 10: Outcomes and measurement criteria: Aboriginal heritage

MINING LEASE CONDITIONS	IMPACT EVENT	PROPOSED CONTROL AND MANAGEMENT STRATEGIES	DRAFT MEASUREMENT CRITERIA	DRAFT LEADING INDICATOR CRITERIA
<b>The Tenement Holder must during construction and operation ensure that there is no damage, disturbance or interference to Aboriginal and non-Aboriginal heritage sites, objects or remains unless it is authorized under the relevant legislation.</b> <b>The Tenement Holder must during construction, operation and post completion ensure that there is no damage, disturbance or interference to Aboriginal and non-Aboriginal heritage sites, objects or remains unless it is authorised under the relevant legislation.</b>	Disturbance caused by construction and mining activities impacts known or unknown Aboriginal heritage sites, objects or remains.	<ul style="list-style-type: none"> <li>Develop and implement a Cultural Heritage Management Plan in consultation with the Wirangu Peoples which will include procedures to be followed should Aboriginal heritage sites, objects or remains be discovered during project construction, operations or closure, and that comply with relevant legislation (including stop work and appropriate notification and assessment procedures)</li> <li>The Applicant will ensure site inductions and training include:                             <ul style="list-style-type: none"> <li>Obligation for machine operators to conduct surface earthworks and surface excavations with due care</li> <li>Obligations should an Aboriginal site, object ore remain is discovered including:                                     <ul style="list-style-type: none"> <li>immediate cessation of work</li> <li>notification to Traditional Owners</li> <li>Avoidance of that area to ensure no damage, disturbance or interference with that site, object or remain. Should avoidance be impossible, the Applicant, in consultation with the Traditional Owners, will submit an application to the Minister for Aboriginal Affairs pursuant to either Section 21 or Section 23 of the <i>Aboriginal Heritage Act 1988</i>.</li> </ul> </li> </ul> </li> </ul>	Evidence that: <ul style="list-style-type: none"> <li>Appropriate authorisation has been obtained under the <i>Aboriginal Heritage Act 1988</i> prior to the commencement of any activities that will disturb known Aboriginal objects and sites.</li> <li>If new Aboriginal objects or sites are discovered, work that may affect the object or sites is ceased until appropriate authorisation under the <i>Aboriginal Heritage Act 1988</i> was provided.</li> <li>Appropriate authorisation has been obtained under the <i>Heritage Places Act 1993</i> prior to the commencement of any activities that will disturb known heritage places (if any are identified or declared into the future).</li> </ul>	None required.