NSW GOVERNMENT

NSW Resources Regulator

APO DECISION BRIEFING

EL9399 Exploration Program APO0001235

Decision Maker	[redacted]
Date	Tuesday 2 August 2022
Prepared by	[redacted]
Title	EL 9399 (1992)
Authorised Representative	[redacted]
Project name	EL9399 Exploration Program
Activity type	Complying Exploration Activity

Issue

[redacted] has sought an activity approval in respect of EL9399 Exploration Program, within EL 9399 (1992), at Wilpinjong.

An exploration authority issued under the *Mining Act 1992* is subject to a statutory condition that the authority holder must not carry out an assessable prospecting operation on land over which the authority is granted unless an activity approval has been obtained for the carrying out of the assessable prospecting operation.

As assessable prospecting operations require approval by the Minister pursuant to s.23A or s.44A under the *Mining Act 1992*, a duty is imposed on determining authorities under Part 5 of the *Environmental Planning and Assessment Act 1979* to:

- consider the environmental impacts of the proposed activity; and
- if the activity is likely to significantly affect the environment, examine and consider an environmental impact statement in respect of the activity.

The Minister for Resources is the determining authority for all exploration activities subject to environmental assessment under Part 5 of the *Environmental Planning and Assessment Act 1979*.

The Decision Maker, under delegation from the Minister, is required to determine whether:

- this activity is likely to significantly affect the environment. Where there is likely to be a significant effect on the environment, an Environmental Impact Statement (EIS) is required prior to the approval being determined; and
- the application for approval of the prospecting operation should be granted.

Background

APO0001235 seeking approval under EL 9399 (granted 3 May 2022, expiry 3 May 2028) to undertake 67 AC and 22DDH exploration holes to define the coal seam structure, coal quality testing, gas desorption testing and composition analysis, coal quality sizing, geotechnical testing of seam roof and floor and to define weathered coal. Some bores to be retained for groundwater monitoring.

START: 1 August 2022, for 43 weeks, with rehab completion by 31 May 2023 (approx 9 months)

ACCESS: via existing local landholder access tracks and across previously cleared paddocks. No new formed access tracks are anticipated to be required.

HOURS OF OPERATIONS: Continuous work hours (24 hours a day, 7 days a week). Works will be limited to the hours of 6:30am am to 6:30 pm on a 7 day roster (Monday to Sunday), with 3 crews rotating.

DISTURBANCE: Surface disturbance would be limited to the drill hole only (approx 2.5m x 2.5m), for the 89 drill holes (total of 0.06 ha) with an approx. 40m x 40m area slashed at each drill site to maintain safe access to the exploration activities, this slashing would not include direct surface disturbance, however this slashing would not involve earthworks, vegetation removal or direct surface disturbance. Slashing activities would avoid established trees.

Surface water: The nearest watercourses are:

• Wilpinjong Creek to the north of the exploration activities, with the closest drill hole at least 50 m from the high bank of Wilpinjong Creek.

• Wollar Creek that runs through EL 9399, with the closest drill hole at least 50 m from the high bank of Wollar Creek.

• An unnamed tributary of Wollar Creek that runs within the east of EL 9399, with the closest drill hole at least 50 m from the high bank of the tributary.

No surface water sources are likely to be impacted.

CUMULATIVE – Nil past activities on the title, this is the first application since grant in May 2022

AHIMS search dated 11/5/22 – 84 Aboriginal sites recorded in or near project location.

Additional details doc provided with APO notes "the proposed exploration activities have been designed to avoid any previously identified/known Aboriginal heritage sites identified from the AHIMS search. Where the presence of Aboriginal heritage sites are identified by due diligence surveys conducted in advance of the exploration activities, the exploration activities would be relocated to avoid harm to the Aboriginal heritage site. As such, no Aboriginal heritage sites would be impacted as part of the proposed exploration activities." – as shown on plan provided with APO.

SEED search 2/8/22 – proposed drillhole locations on relatively flat, undulating slope with steeper areas in the southern portion of the title. Minimal drillholes proposed in this area.. No terrestrial biodiversity or issues of environmental sensitivity within the proposed activity area. Drillholes avoid creek lines etc. Some Crown Land lots located within the title boundary – largely avoided except for 2 crown land lots located in the northern portion of the title/activity area (4 drillholes proposed within this area). Plans provided note this is "Crown Land (Special Lease/Licence)" – Lot 63 DP 755455. Industry View search confirmed "State of NSW" as the owner.

Response to queries provided 2/8/22:

1. Lot 63 DP 755455. Industry View search confirmed "State of NSW" as the owner.– Ministers' consent for exempted area.

All drill sites in the north-eastern area of the title were shifted outside of Lot 63, DP755455 for the application, as shown on the map below. Each corner of the drill sites will be accurately delineated by the survey department as to prevent any chance of disturbing the Crown Land parcel.

2. What system is in place to ensure the drillers avoid Crown Land, Title boundaries and Aboriginal sites to avoid? – internal GDP process -digital data for them, demarcated

We are currently in the process of completing an internal Ground Disturbance Permit for the drill sites - the compliance/project conditions and general information of the permit is reflective of that found in the APO application. The information within the permit will be verbally communicated to the drillers prior to the commencement of the program, and in their daily pre-start meetings. GIS data is also available for ensuring that all GDP areas are correctly delineated.

3. Sensitive receivers – 7 day week? Distance and any consultation?

All residents who live within proximity of the drilling program dwell in Peabody-leased housing with mine-impact agreements as a condition of their leases. Only one private resident remains in the village of Wollar; this resident is expected to be under a noise agreement prior to the commencement of the drilling program.

Security

Refer to RCE Record RCE0001198

Assessment of impacts (complying exploration activity)

An assessment of the significance of environmental impacts associated with the proposed activity was undertaken in accordance with:

- The Department of Planning and Infrastructure guideline "*Is an EIS required? Best practice guidelines for Part 5 of the Environmental Planning and Assessment Act 1979*"
- *Environmental Assessment - Common Exploration Activities* (Department of Industry - September 2015).

The results of this assessment are documented in the attached Part 5 Assessment Tables.

Additional terms (if approved)

The following additional terms are proposed:

- No additional terms are required.

Summary

Based on the information provided in the *APPLICATION TO UNDERTAKE ASSESSABLE PROSPECTING OPERATIONS EL9399 Exploration Program* report, and the assessment undertaken in the Part 5 Assessment Tables, the proposed activity has been assessed as not likely to significantly impact the environment.

The application for approval has been assessed as being Approve for grant.

Recommendation

The Decision Maker, under delegation from the Minister for Resources:

- assesses the environmental impact of EL9399 Exploration Program and determines that the activity is not likely to significantly impact the environment under Part 5 of the *Environmental Planning and Assessment Act 1979*; and
- Approve the activity pursuant to the *Mining Act 1992*.

Part 5 assessment tables

Criteria	Air quality impacts (including impacts on nearby sensitive receptors).
Potential impacts	Particulates and emissions from vehicle exhausts, plant and machinery. Wind erosion and dust from disturbed soils during construction and operations. Dust from vehicles travelling over tracks. Dust generation from operating plant and machinery.

Proposed management controls	Activities must comply with CEA Location Restrictions, Impact Thresholds and Criteria. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must comply with cumulative AQ criteria. b. Emissions from the activities should not result in cumulative PM10 levels exceeding 50ug/m3 (24hr) or 30 ug/m3 (annual average) at any occupied residence. c. Emissions from the activities should not result in cumulative PM2.5 emissions exceeding 25 ug/m3 (24hr) or 8 ug/m3 (annual average) at any occupied residence. d. Vehicle speeds limited to minimise dust. e. Roads watered during high traffic periods. f. Surface disturbance managed in accordance with Blue Book. Impacts of any drilling limited to immediate vicinity of drilling due to controls set out in title conditions (Exploration Code of Practice: Environmental Management). Impacts negligible due to nature of drilling activities. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Greenhouse or ozone impacts.
Potential impacts	Emissions from combustion of fuel associated with vehicles, plant and machinery during construction, operations and rehabilitation. Fugitive methane emissions from intercepted seams. Fugitive emissions of gases or vapour from drilling operations and the operation of flares.

Proposed management controls	CO2 emissions from activities are extremely limited and inconsequential in context of global emissions and impact. Restrictions on use of ozone depleting substances in NSW also limits ozone depletion. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Medium term atmospheric residence.		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Impacts from the use of surface or groundwater.
Potential impacts	Water used for exploration not available for ecological, stock, domestic or irrigation purposes. Surface runoff can be sediment laden. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. Activities must not cause adverse impacts to livestock (including any adverse impacts on surface water supplies used by livestock). Water used for access track watering must be obtained from licensed source or farm dams (with consent of owner). Boreholes to be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Impacts from storage of water
Potential impacts	Negligible and only localised impacts from storage of water. Water used for exploration not available for ecological, stock, domestic or irrigation purposes. Surface runoff can be sediment laden. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). No use of groundwater but potential loss through produced water in drilling / deep excavation operations.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. Activities must not cause adverse impacts to livestock (including any adverse impacts on surface water supplies used by livestock). All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. Any impacts subject to compensation and landholder access arrangements (e.g. any impacts on land use from storage or water).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Impacts from changes to natural water bodies, wetlands or runoff patterns.
Potential impacts	Negligible and only localised changes to surface flows. Surface runoff can be sediment laden. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. Existing access tracks to be used/upgraded wherever possible. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Impacts from aquifer interference, including changes to inter-aquifer connectivity.		
Potential impacts	No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. Activities must minimise cross connection of aquifers or groundwater sources. c. Activities must minimise any depressurisation of aquifers or groundwater sources. d. Coal and petroleum title holders must prepare and implement and Groundwater Monitoring & Modelling Plan in consultation with NSW Office of Water. Boreholes to be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers.		

Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Impacts from changes to flooding or tidal regimes.		
Potential impacts	Negligible and only localised changes to drainage flows/flooding regime. Surface runoff can be sediment laden.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. Existing access tracks to be used/upgraded wherever possible. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Impacts from changes in surface or groundwater quality and quantity.		
Potential impacts	Water used for exploration not available for ecological, stock, domestic or irrigation purposes. Surface runoff can be sediment laden from areas where vegetation has been removed. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Ford across creeks can cause stream bank erosion from vehicle wash. Inappropriate disposal of drilling wastes / overflow from drilling sumps.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. Activities must minimise cross connection of aquifers or groundwater sources. c. Activities must minimise any depressurisation of aquifers or groundwater sources. d. Coal and petroleum title holders must prepare and implement and Groundwater Monitoring & Modelling Plan in consultation with NSW Office of Water. e. All sediment and erosion controls to be in accordance with Blue Book to minimise off-site impacts.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Degradation of soil quality (including contamination, salinisation or acidification).		
Potential impacts	Soil erosion and sediment laden runoff from disturbed areas / areas where vegetation has been removed. Mobilisation of pollutants (such as hydrocarbons) in soils. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Exposure of acid sulfate soils. Soil compaction from construction/operations.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. Existing access tracks to be used/upgraded wherever possible. d. Controls on sumps and management of chemicals to significantly reduce risk to soils. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Loss of soil from wind or water erosion.		
Potential impacts	Increased risk of erosion where vegetation has been removed. Potential erosion of disturbed areas.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. d. Existing access tracks to be used/upgraded wherever possible. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Loss of structural integrity of the soil.
Potential impacts	Soil compaction from access traffic, use of plant and machinery. Soil erosion from disturbed areas / areas where vegetation has been removed. Mobilisation of pollutants (such as hydrocarbons) in soils.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. Existing access tracks to be used/upgraded wherever possible. d. Controls on sumps and management of chemicals to significantly reduce risk to soils. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes). Deep ripping of any access tracks which need to be rehabilitated can remediate compaction impacts. Impact generally limited due to low traffic numbers and short term nature of exploration.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Increased land instability with high risks from land slides or subsidence.		
Potential impacts	Minimal potential impacts. Soil erosion from disturbed areas / areas where vegetation has been removed.		

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book (includes controls to manage instability risks). d. Existing access tracks to be used/upgraded wherever possible. e. Controls on sumps and management of chemicals to significantly reduce risk to soils. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Results in increased noise or vibration.
Potential impacts	Noise from vehicles, plant and machinery results in unacceptable impacts on nearby sensitive receivers, such as residences, educational establishments, medical facilities, places of worship, animal boarding/training establishments, intensive livestock agriculture, etc. Percussion drilling can have localised vibration impacts. Drilling unlikely to cause vibration impacts . Shots have vibration and overpressure impacts which may impact vibration sensitive sites. Vibroseis machinery has vibration impacts which may impact vibration sensitive sites.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Implementing all practicable measures to ensure noise levels meet acceptable criteria for sensitive receivers. b. Notifying potentially affected landholders at least 24hrs prior to detonating explosives. c. Compliance with Interim Construction Noise Guidelines and/or EPL and/or landholder agreements. d. Ground vibration thresholds limited to 5 mm/s (peak particle velocity) at any residence/sensitive receiver. e. Ground vibration thresholds limited to 3 mm/s for any item of Aboriginal / European heritage significance or cliff line greater than 4m in height. f. Vibrating machinery not to be used within 200m of sensitive receivers, item/place of Aboriginal / European heritage significance or any cliff line greater than 4m in height. Impacts limited to immediate vicinity of exploration activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Affects sensitive receptors.
Potential impacts	Noise from vehicles, plant and machinery results in unacceptable impacts on nearby sensitive receivers, such as residences, educational establishments, medical facilities, places of worship, animal boarding/training establishments, intensive livestock agriculture, etc. Percussion drilling can have localised vibration impacts. Drilling unlikely to cause vibration impacts . Shots have vibration and overpressure impacts which may impact vibration sensitive sites. Vibroseis machinery has vibration impacts which may impact vibration sensitive sites.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Implementing all practicable measures to ensure noise levels meet acceptable criteria for sensitive receivers. b. Notifying potentially affected landholders at least 24hrs prior to detonating explosives. c. Compliance with Interim Construction Noise Guidelines and/or EPL and/or landholder agreements. d. Ground vibration thresholds limited to 5 mm/s (peak particle velocity) at any residence/sensitive receiver. e. Ground vibration thresholds limited to 3 mm/s for any item of Aboriginal / European heritage significance or cliff line greater than 4m in height. f. Vibrating machinery not to be used within 200m of sensitive receivers, item/place of Aboriginal / European heritage significance or any cliff line greater than 4m in height. Impacts limited to immediate vicinity of exploration activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Affects coastal processes and coastal hazards, including those under projected climate change conditions.		
Potential impacts	Activities along the coastline / floodways have the potential to exacerbate coastal erosion (rising sea levels and increased storm activity under projected climate change conditions could result in increased erosion along the coastline / floodways).		

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. CO2 emissions from activities are extremely limited and inconsequential in context of global emissions and impact. Restrictions on use of ozone depleting substances in NSW also limits ozone depletion. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Results in impacts associated with the use, generation, storage or transport of hazardous substances or chemicals.
Potential impacts	Mobilisation of pollutants (such as hydrocarbons) in soils or waters. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Preventing contamination of the environment by the release of chemicals, fuels, other potential pollutants. b. Preventing any land degradation or pollution/contamination of land or water. c. Controls on sumps and management of chemicals to significantly reduce risk to environment. d. Use of pesticides, herbicides, fertilisers or other chemicals must comply with legislative requirements. e. Wastes+A34 (including any drilling by-products) to be collected, segregated and disposed of lawfully. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Results in impacts to the environment resulting from the generation or disposal of wastes.		
Potential impacts	Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Fugitive emissions of gases or vapour from drilling operations or the operation of flares. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water.		

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Preventing contamination of the environment by the release of chemicals, fuels, other potential pollutants. b. Preventing any land degradation or pollution/contamination of land or water. c. Controls on sumps and management of chemicals to significantly reduce risk to environment. d. Use of pesticides, herbicides, fertilisers or other chemicals must comply with legislative requirements. e. Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Coastline and dune fields, alpine areas, deserts, caves or other unique landforms.		

Potential impacts	Negligible and only localised impacts on unique landforms. Mobilisation of pollutants in soils, surface water or aquifers. Short term noise, air quality and visual impacts. Particulate emissions from plant and machinery; fugitive emissions of gases or vapour from drilling operations and the operation of flares. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Exposure of acid sulfate soils. Spread of weeds, pest animals and animal/plant diseases. Damage to structures and sensitive features, such as unique landforms. Activities along the coastline / floodways have the potential to exacerbate coastal erosion (rising sea levels and increased storm activity under projected climate change conditions could result in increased erosion along the coastline / floodways).		
Proposed management controls	Impact limited to activity site and subject to compensation and landholder access arrangements. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Land with high agricultural capability.		

Potential impacts	Areas used for exploration activities, access tracks, etc not available for agricultural production. Temporary loss of use of land. Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Short term noise, air quality and visual impacts. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Exposure of acid sulfate soils. Spread of weeds, pest animals and animal/plant diseases. Disruption to agricultural / livestock operations.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on the environment (including livestock protection, control of weeds, pest animals, diseases, etc). Use of above-ground sumps required on BSAL. Impacts limited to activity site and subject to compensation and landholder access arrangements. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Natural water bodies, riparian zones, wetlands, drinking water catchments or flood prone areas.		
Potential impacts	Negligible and only localised changes to drainage flows/flooding regime. Water used for exploration not available for ecological, stock, domestic or irrigation purposes. Surface runoff can be sediment laden from areas where vegetation has been removed. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Ford across creeks can cause stream bank erosion from vehicle wash. Inappropriate disposal of drilling wastes / overflow from drilling sumps.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		

Criteria	Groundwater recharge areas or areas with high water table.		
Potential impacts	Minimal impact on recharge and salinity. No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Vegetation clearance in recharge areas can increase salinity. Acid drainage due to exposure of acid sulfate soils.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. Boreholes to be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. Drill holes to be cased where aquifers intercepted (minimal impact on recharge and salinity).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Erosion prone areas, areas with slopes of greater than 18 degrees.		
Potential impacts	Minimal potential impacts. Soil erosion and sediment laden runoff from disturbed areas / areas where vegetation has been removed. Mobilisation of pollutants (such as hydrocarbons) in soils. Riverbed / riparian zone disturbance from use of poorly constructed or maintained river crossings.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book (includes controls to manage instability risks). d. Existing access tracks to be used/upgraded wherever possible. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Subsidence or slip areas.
Potential impacts	Soil erosion from disturbed areas / areas where vegetation has been removed may increase risk of slips. Drilling operations unlikely to contribute to slips.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book (includes controls to manage instability risks). d. Existing access tracks to be used/upgraded wherever possible. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas with acid sulphate, sodic or highly permeable soils.
Potential impacts	Vegetation removal unlikely to exacerbate acid sulfate or sodicity issues. Drilling activities unlikely to exacerbate acid sulfate or sodicity issues. Soil erosion and sediment laden runoff from disturbed areas / areas where vegetation has been removed.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. d. Existing access tracks to be used/upgraded wherever possible. e. Controls on sumps and management of chemicals to significantly reduce risk to soils. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Impacts generally limited due to low traffic numbers and short term nature of exploration.

Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas with salinity or potential salinity problems.
Potential impacts	Activities unlikely to exacerbate salinity problems. Vegetation removal may reduce vegetation drawdown of water table. Spills of saline produced water. Vegetation removal unlikely to exacerbate acid sulfate or sodicity issues. Soil erosion and sediment laden runoff from disturbed areas / areas where vegetation has been removed.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. d. Controls on sumps and management of chemicals to significantly reduce risk to soils. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Impacts generally limited due to low traffic numbers and short term nature of exploration.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas with degraded air quality.
Potential impacts	Potential for temperature inversions in winter to trap dust and air particulates. Wind erosion possible from exposed soils. Particulate emissions from vehicles and machinery. Dust generation from operating machinery, vehicles travelling over tracks, etc.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must comply with cumulative AQ criteria. b. Emissions from the activities should not result in cumulative PM10 levels exceeding 50ug/m3 (24hr) or 30 ug/m3 (annual average) at any occupied residence. c. Emissions from the activities should not result in cumulative PM2.5 emissions exceeding 25 ug/m3 (24hr) or 8 ug/m3 (annual average) at any occupied residence. d. Vehicle speeds limited to minimise dust. e. Roads watered during high traffic periods. f. Surface disturbance managed in accordance with Blue Book. Impacts of any drilling limited to immediate vicinity of drilling due to controls set out in title conditions (Exploration Code of Practice: Environmental Management) (impacts negligible due to nature of drilling activities). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low

Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas with degraded or contaminated soil.
Potential impacts	Activity unlikely to result in any change to existing contaminated soils or migration of contaminants. Soil erosion and sediment laden runoff from disturbed areas / areas where vegetation has been removed. Mobilisation of pollutants (such as hydrocarbons) in soils. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Exposure of acid sulfate soils. Soil compaction from construction / operations. Vegetation removal unlikely to have any impact on contaminated soils.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimising vegetation clearing and surface disturbance. b. Prevent causing any land degradation or pollution/contamination of land or water. c. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. d. Controls on sumps and management of chemicals to significantly reduce risk to soils. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Impacts generally limited due to short term nature of exploration. Activity unlikely to exacerbate any existing contamination.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Area with degraded or contaminated water (ground or surface).		
Potential impacts	Activities unlikely to have any additional impacts on areas with existing degraded or contaminated water (ground or surface). Boreholes to be cased when aquifers intercepted. Surface runoff can be sediment laden from areas where vegetation has been removed. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Inappropriate disposal of drilling wastes / overflow from drilling sumps. Excavations excluded from acid sulfate soils.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. Activities must minimise cross connection of aquifers or groundwater sources. c. Activities must minimise any depressurisation of aquifers or groundwater sources. d. Coal and petroleum title holders must prepare and implement and Groundwater Monitoring & Modelling Plan in consultation with NSW Office of Water. e. All sediment and erosion controls to be in accordance with Blue Book to minimise off-site impacts. Boreholes to be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. All management and storage of produced water must comply with the title conditions. In addition, the Exploration Code of Practice: Produced Water Management, Storage and Transfer may apply to the management of produced water. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes). Activities unlikely to exacerbate any existing surface or groundwater contamination.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any clearing or modification of vegetation (including habitat for species of conservation significance).
Potential impacts	Vegetation removal can decrease available foraging/ sheltering/ breeding habitat for species and displace species from regular place of residence. Areas used for exploration activities, access tracks, etc not available for fauna habitat. Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna. Drilling sumps can be a hazard for fauna. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Short term noise and air quality impacts. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Exposure of acid sulfate soils. Spread of weeds, pest animals and animal/plant diseases.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Any significant effect on threatened fauna species, populations, or their habitats or critical habitat, or an endangered ecological community or its habitat (the threatened species assessment of significance).		
Potential impacts	No impacts. CEA impact thresholds apply. An activity cannot be a CEA if it has a significant effect on threatened fauna species, populations, or their habitats or critical habitat, or an endangered ecological community or its habitat.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Any potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement.		

Potential impacts	Vegetation removal can decrease available foraging/ sheltering/ breeding habitat for species and displace species from regular place of residence. Access tracks can act as a barrier to movement of small fauna species. Fauna crossing access tracks may be killed or injured if hit by vehicles. Vegetation removal can remove connective corridors used for wildlife movement. Areas used for exploration activities, access tracks, etc not available for fauna habitat. Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna. Drilling sumps can be a hazard for fauna. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Short term noise and air quality impacts. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Spread of weeds, pest animals and animal/plant diseases.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any clearing or modification of vegetation (including vegetation of conservation significance).		
Potential impacts	Vegetation removal can harm threatened species or reduce local abundance of species. Areas cleared for exploration activities, access tracks, etc not available for flora habitat. Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Spread of weeds, pest animals and animal/plant diseases.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any significant effect on threatened flora species, populations, or their habitats or critical habitat, or an endangered ecological community or its habitat (the threatened species assessment of significance).
Potential impacts	No impacts. CEA impact thresholds apply. An activity cannot be a CEA if it has a significant effect on threatened fauna species, populations, or their habitats or critical habitat, or an endangered ecological community or its habitat.

Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Any threat to the biological diversity or ecological integrity of species or communities.
Potential impacts	Vegetation removal can decrease available foraging/ sheltering/ breeding habitat for species and displace species from regular place of residence. Areas used for exploration activities, access tracks, etc not available for flora / fauna habitat. Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna / flora. Drilling sumps can be a hazard for fauna. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Exposure of acid sulfate soils. Spread of weeds, pest animals and animal/plant diseases. Fauna crossing access tracks may be killed or injured if hit by vehicles. Surface disturbance may result in removal of/damage to seed stock.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. c. Setbacks from steep slopes/cliffs to limit impact of shots on cave dwelling fauna. Noise impacts / disruption to fauna are temporary. Vehicle movements are limited and unlikely to have significant injury/mortality impacts. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Creates a biosecurity risk or introduces genetically modified organisms into an area. Includes impacts from the introduction of: a. animal pests, b. plant pests and diseases, c. animal diseases, d. noxious weeds, or e. genetically modified organisms.		
Potential impacts	Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna / flora. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Spread of weeds, pest animals and animal/plant diseases. Surface disturbance may result in removal of/damage to seed stock. Weed growth in disturbed areas.		

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. c. Requirement to prevent introduction and spread of weeds, pest animals & animal and plant diseases (required to implement "come clean, go clean" protocols). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (includes weed growth management). Legislative requirement for landholder access arrangements.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	High bushfire risk impacts.		
Potential impacts	Plant and machinery comprises a potential ignition source.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including undertaking a risk assessment and implementing suitable controls to manage risks (e.g. implementation of controls on activities during Extreme or Catastrophic Fire Conditions will largely negate risk). Activities must comply with WHS legislative requirements. Any existing/proposed access tracks can be used as firebreaks in event of fire.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Corals and sea grass beds, wetland communities (coastal, peatlands or inland), native forests, urban bushland, arid and semi arid communities.
Potential impacts	Mobilisation of pollutants in soils, surface water or aquifers. Short term noise, air quality and visual impacts. Particulate emissions from plant and machinery; fugitive emissions of gases or vapour from drilling operations and the operation of flares. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Exposure of acid sulfate soils. Spread of weeds, pest animals and animal/plant diseases. Damage to sensitive features, such as unique landforms. Vegetation removal may remove/harm some native vegetation.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Critical habitats or the habitats of threatened fauna or flora species, populations or ecological communities.		
Potential impacts	Potential impacts limited due to CEA impact threshold restrictions. CEAs are not permitted to have any impact on critical habitat. CEAs are not permitted to have a significant impact on threatened fauna or flora species, populations or ecological communities. (Also refer to flora and fauna impact tables).		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Habitat of species listed under international agreements.

Potential impacts	Potential impacts limited due to CEA impact threshold restrictions. CEAs are not permitted to have any impact on critical habitat. CEAs are not permitted to have a significant impact on threatened fauna or flora species, populations or ecological communities. (Also refer to flora and fauna impact tables).		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Wildlife corridors and remnant vegetation.
Potential impacts	Vegetation removal and activities can temporarily impact wildlife corridors and remnant vegetation. Areas cleared for exploration activities, access tracks, etc not available for flora habitat. Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation. Spread of weeds, pest animals and animal/plant diseases. Removal of vegetation, barriers created by access tracks, etc can interrupt movement of fauna species.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Minimise extent of vegetation clearing and surface disturbance to as low as practicable. b. Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. c. Access track widths unlikely to pose significant barrier to fauna. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Habitat of protected aquatic species or those with conservation status.
Potential impacts	Negligible and only localised changes to drainage flows/flooding regime. Water used for exploration not available for ecological purposes. Surface runoff can be sediment laden from areas where vegetation has been removed. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). No use of groundwater but potential loss through produced water in drilling / deep excavation operations. Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Ford across creeks can cause stream bank erosion from vehicle wash. Inappropriate disposal of drilling wastes / overflow from drilling sumps.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. No significant impact on any threatened species, threatened populations, threatened ecological communities, or their habitats. d. No removal of vegetation in waterfront land. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Fishing grounds and commercial fish breeding or nursery areas.
Potential impacts	Negligible and only localised changes to drainage flows/flooding regime. Surface runoff can be sediment laden from areas where vegetation has been removed. Generally minimal surface water use (must be licensed or use of farm dams through landholder agreements). Interception, cross contamination and/or depressurisation of groundwater systems in drilling operations. Groundwater depressurisation effects on surface water. Mobilisation of pollutants (such as hydrocarbons) in surface water or aquifers. Ford across creeks can cause stream bank erosion from vehicle wash. Inappropriate disposal of drilling wastes / overflow from drilling sumps.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including: a. Activities must implement all measures to prevent causing any adverse impacts on water quality or quantity. b. All sediment and erosion controls (including drainage from roads/access tracks) to be managed in accordance with Blue Book. c. No significant impact on any threatened species, threatened populations, threatened ecological communities, or their habitats. d. No removal of vegetation in waterfront land. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Bushfire prone areas.		
Potential impacts	Plant and machinery may be an ignition source.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including undertaking a risk assessment and implementing suitable controls to manage risks (e.g. implementation of controls on activities during Extreme or Catastrophic Fire Conditions will largely negate risk). Activities must comply with WHS legislative requirements. Any existing/proposed access tracks can be used as firebreaks in event of fire.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any degradation of infrastructure or significant increase in the demand for services and infrastructure resources.
Potential impacts	Limited potential for any significant increase in demand for resources. Negligible potential for degradation of infrastructure, such as roads and bridges.
Proposed management controls	Negligible impacts likely. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment, culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (includes weed growth management). Legislative requirement for landholder access arrangements and compensation.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any significant resource recycling or reuse schemes to reduce resource usage.
Potential impacts	N/A

Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Any diversion of resources to the detriment of other communities or natural systems.		
Potential impacts	Limited potential for any significant diversion of resources to the detriment of other communities or natural systems. Negligible impacts and only localised changes. Areas used for exploration activities, temporarily removed from natural systems and / community use.		
Proposed management controls	Negligible impacts likely. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment, culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. (includes weed growth management). Legislative requirement for landholder access arrangements and compensation.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low

Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Any disruption, depletion or destruction of natural resources.
Potential impacts	Limited potential for any significant diversion of resources to the detriment of other communities or natural systems. Negligible impacts and only localised changes. Areas used for exploration activities, temporarily removed as a natural resource. Vegetation removal may remove potential timber resources. No significant impacts on other natural resources other than positive in terms of increased knowledge of geological resources.
Proposed management controls	Negligible impacts likely. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment (water, land, soil, air), culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Legislative requirement for landholder access arrangements and compensation limit any potential impacts.
Duration	N/A
Application ranking	

What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any disruption of existing activities (or reduction of options for future activities).		
Potential impacts	Limited potential for any significant disruption of existing activities (or reduction of future activities). Negligible impacts and only localised changes. Areas used for exploration activities, temporarily removed as a natural resource but no long term impacts on future availability of forestry, agricultural land, soils or water resources. Vegetation removal may remove potential timber resources.		
Proposed management controls	Negligible impacts likely. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment (water, land, soil, air), culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Legislative requirement for landholder access arrangements and compensation limit any potential impacts.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any use which results in the degradation of any area reserved for conservation purposes.		
Potential impacts	CEA activity not permitted in areas reserved for conservation purposes.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	National parks and other areas reserved or dedicated under the National Parks and Wildlife Act 1974.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Land reserved or dedicated within the meaning of the Crown Lands Act 1989 for preservation or other environmental protection purposes.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	World Heritage areas.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Environmental protection zones in environmental planning instrument or lands protected under SEPP 14 - Coastal Wetlands.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Land identified as wilderness under the Wilderness Act 1987 or declared as wilderness under the NPW Act.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Aquatic reserves reserved or dedicated under the Fisheries Management Act 1994.Aquatic reserves reserved or dedicated under the Fisheries Management Act 1994.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Wetland areas dedicated under the Ramsar Wetlands Convention.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Heritage items identified on the Register of the National Estate, under the NSW Heritage Act or an environmental planning instrument.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Community land under the Local Government Act (for which a plan of management has been prepared).		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Land subject to a "conservation agreement" under the NPW Act.		
Potential impacts	Activity not permitted in area.		
Proposed management controls	N/A		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	N/A

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Any impacts which result in a change in the demographic structure of the community.		
Potential impacts	Limited potential for any significant change in the demographic structure of the community. Negligible impacts and only localised changes.		
Proposed management controls	Negligible impacts likely due to low personnel numbers and temporary nature of exploration.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any environmental impact that may cause substantial change or disruption to the community.
Potential impacts	Environmental impacts from activities not of a nature to cause any significant or long term change or disruption to community. Areas used for exploration activities, temporarily removed from natural systems and / community use. Short term noise, air quality and visual impacts.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts which result in some individuals or communities being significantly disadvantaged.
Potential impacts	Impacts from activities not of a nature to cause any significant or long term change or disruption to community. Limited potential to significantly impact on individuals or communities - short term impacts only. Areas used for exploration activities, temporarily removed from natural systems and / community use. Short term noise, air quality and visual impacts.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment (water, land, soil, air), culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Legislative requirement for landholder access arrangements and compensation limit any potential impacts. Compensation under Mining Act available to mitigate compensation. Activities must comply with WHS legislative requirements.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts on the health, safety, privacy or welfare of individuals or communities.
Potential impacts	Activities not of a nature to cause any significant or long term health, safety, privacy or welfare impacts. Limited potential to significantly impact on individuals or communities - short term impacts only. Short term noise, air quality and visual impacts.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment (water, land, soil, air), culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity. Legislative requirement for landholder access arrangements and compensation limit any potential impacts. Compensation under Mining Act available to mitigate compensation. Activities must comply with WHS legislative requirements.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts that result in a change in the level of demand for community resources (eg community facilities, community services and labour force).		
Potential impacts	Negligible potential to significantly change level of demand for community resources - short term impacts only. Minimal increase in demand for accommodation, food, mechanical and fuel supplies, etc. Not large enough to warrant significant changes in supply.		
Proposed management controls	Negligible impacts likely due to low personnel numbers and temporary nature of exploration. Generally positive for suppliers of services and goods utilised.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts which may affect economic activity (positive or negative), including a decrease to net economic welfare.
Potential impacts	No significant impacts predicted. Minimal increase in demand for accommodation, food, mechanical and fuel supplies, etc. Not large enough to warrant significant changes in supply.
Proposed management controls	Negligible impacts likely due to low personnel numbers and temporary nature of exploration. Generally positive for suppliers of services and goods utilised.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts that result in a decrease in the economic stability of the community.
Potential impacts	Activities not of a scale to warrant changes in supply side. Temporary increase in demand will result in increased income for some suppliers.
Proposed management controls	Negligible impacts likely due to low personnel numbers and temporary nature of exploration. Generally positive for suppliers of services and goods utilised.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts which result in a change to the public sector revenue or expenditure base.
Potential impacts	Rehabilitation security bond covers any future public liability for rehabilitation. Investment in exploration may lead to significant mining investment. Limited long term negative economic impacts from exploration.

Proposed management controls	Small increase in public revenue associated with exploration, including taxes from wages.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	No	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts on a locality, place, landscape, building or archaeological relic of heritage significance.
Potential impacts	Damage to structures and sensitive features. Limited potential to significantly impact on locality, places, landscapes or buildings. Short term noise, air quality and visual impacts. Potential for temporary impact on aesthetics of a locality.
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	N/A	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts on the visual or scenic landscape.
Potential impacts	Limited potential to significantly impact on visual or scenic landscape. Short term noise, air quality and visual impacts. Potential for temporary impact on aesthetics of a locality. Lighting during night time operations and use of access tracks by vehicles at night may affect local amenity .
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any disturbance of the ground surface or any culturally modified trees (e.g. a scar tree).
Potential impacts	Short term ground disturbance. Potential for temporary impact on aesthetics of a locality.

Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any impacts on known Aboriginal objects or Aboriginal places.		
Potential impacts	Short term ground disturbance. Potential for impact on Aboriginal objects and places through ground disturbance, excavations, vegetation clearing, etc.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low

Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Affects areas where the landscape features indicate the likely presence of Aboriginal objects.		
Potential impacts	Short term ground disturbance. Potential for impact on Aboriginal objects and places through ground disturbance, excavations, vegetation clearing, etc.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Affects areas subject to native title claims, indigenous land use agreements or joint management arrangements.
Potential impacts	Condition of exploration title/authority prohibits exploration on any land or waters on which Native Title has not been extinguished, unless the prior consent of the Minister has been obtained.
Proposed management controls	Condition of exploration title/authority prohibits exploration on any land or waters on which Native Title has not been extinguished, unless the prior consent of the Minister has been obtained.
Duration	Short term

Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Any major changes in land use, including curtailment of other beneficial land uses.
Potential impacts	Limited potential for any major changes in land use due to short term and temporary nature of exploration. Negligible impacts and limited to immediate vicinity of site. Areas used for exploration activities, temporarily removed from existing land use/s but no long term impacts. Vegetation removal may remove potential timber resources.
Proposed management controls	Minimal impacts likely and limited to immediate site of the activity. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including protection of all elements of the environment (water, land, soil, air), culture and heritage. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity . Legislative requirement for landholder access arrangements and compensation limit any potential impacts.
Duration	Short term

Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low

Can the impacts be mitigated?	No	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Any property value impacts with land use implications.		
Potential impacts	Magnitude of permitted vegetation clearing and disturbance unlikely to result in decline of property values. Limited potential to significantly impact on visual or scenic landscape. Short term noise, air quality and visual impacts. Potential for temporary impact on aesthetics of a locality. Activities should not result in decline of property values over the long term.		
Proposed management controls	Minimal impacts likely and limited to immediate site of the activity. Impacts are compensable under relevant legislation, including Mining Act 1992 and Petroleum (Onshore) Act 1991. Access tracks may increase value of property through improved access. Subject to landholder agreement and any compensation. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term - until land is rehabilitated.		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Uncertain	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Substantial impacts on existing transportation systems.		

Potential impacts	Short term additional traffic during exploration activity, primarily during set-up/construction stage.		
Proposed management controls	Short term additional traffic during exploration activity, primarily during set-up/construction stage. Limited to immediate site. Subject to landholder agreement and any compensation.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Impacts associated with direct or indirect additional traffic.		
Potential impacts	Short term additional traffic during exploration activity, primarily during set-up/construction stage.		
Proposed management controls	Short term additional traffic during exploration activity, primarily during set-up/construction stage. Limited to immediate site. Subject to landholder agreement and any compensation.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		

Criteria	Aboriginal communities or areas subject to land rights claims.		
Potential impacts	Condition of exploration title/authority prohibits exploration on any land or waters on which Native Title has not been extinguished, unless the prior consent of the Minister has been obtained.		
Proposed management controls	Condition of exploration title/authority prohibits exploration on any land or waters on which Native Title has not been extinguished, unless the prior consent of the Minister has been obtained.		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Communities with strong sense of identity.
Potential impacts	Community likely to include members who have concerns about possible future mining following any exploration program. Short term and temporary impacts only.
Proposed management controls	Short term impacts on the community and predominantly limited to immediate site. Subject to landholder agreement and any compensation. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	Medium	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Disadvantaged communities.
Potential impacts	No negative impacts predicted.
Proposed management controls	Short term impacts on the community and predominantly limited to immediate site. Subject to landholder agreement and any compensation. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity.
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas with degraded amenity from noise, traffic congestion or odour.
Potential impacts	Potential for temperature inversions in winter to trap dust and air particulates. Particulate emissions and noise from vehicles and machinery. Dust generation and noise from operating machinery, vehicles travelling over tracks, etc. Short term additional traffic during exploration activity, primarily during set-up/construction stage.

Proposed management controls	Short term impacts predominantly limited to immediate site. Subject to landholder agreement and any compensation. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) including cumulative noise and air quality criteria. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	Short term		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas or items of high anthropological, archaeological, architectural, cultural, heritage, historical, recreational or scientific value.		
Potential impacts	Short term and temporary impacts only.		
Proposed management controls	Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). Aboriginal or European heritage objects/items/areas to be demarcated and avoided. All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).		
Duration	N/A		
Application ranking			
What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No

How resilient is the environment to cope with impacts?	N/A	**What is the level of public concern?**	Low
Can the impacts be reversed?	N/A	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Fully	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		

Criteria	Areas or items of high aesthetic or scenic value.
Potential impacts	Limited potential to significantly impact on aesthetic or scenic value. Short term noise, air quality and visual impacts. Potential for temporary impact on aesthetics of a locality. Lighting during night time operations and use of access tracks by vehicles at night may affect local amenity . Exploration activities, including any removal of vegetation and access track locations, may impact on visual amenity.
Proposed management controls	Short term impacts predominantly limited to immediate site. Activities must comply with title conditions (Exploration Code of Practice: Environmental Management) to minimise potential impacts on all aspects of the environment (including water, land, air), culture and heritage (Aboriginal and Non-Indigenous heritage). All disturbed areas to be rehabilitated in accordance with title conditions (Exploration Code of Practice: Rehabilitation). Rehabilitation to occur as soon as practicable after completion of activity (including sealing of any boreholes).
Duration	Short term
Application ranking	

What is the confidence in predicting impacts?	High	**Are further studies required on impacts or mitigation?**	No
How resilient is the environment to cope with impacts?	High Resilience	**What is the level of public concern?**	Low
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Partly	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes	