Friday 19 April 2024

Assessable Prospecting Operation Application Decision Briefing and Review of Environmental Factors

APO0001728 Durnings DD | APO0001728

Decision Maker	Monique Meyer
Prepared by	Nicole Wallwood
Title	EL 8680 (1992)
Authorised Representative	[redacted]
Project name	APO0001728 Durnings DD
Activity type	Non-Complying Exploration Activity

Issue

[redacted] has sought an activity approval in respect of APO0001728 Durnings DD, within EL 8680 (1992), at 50 kilometres north of Condobolin.

Pursuant to section 2.8 of *State Environmental Planning Policy (Resources and Energy) 2021*, development for the purposes of exploration (i.e. prospecting) may be carried out without development consent.

An authority issued under the *Mining Act 1992* is subject to a 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 under the *Mining Act 1992*, a duty is imposed on determining authorities under Part 5 of the *Environmental Planning and Assessment Act 1979* to:

- examine and take into account to the fullest extent possible all matters affecting or likely to affect the environmental by reason 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 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:

- the proposed activity is not likely to have a significant impact on the environment and is not likely to significantly affect threatened species, populations or ecological communities (or their habitats) or impact biodiversity values and can be approved,
- the proposed activity is likely to have a significant impact on the environment and therefore an Environmental Impact Statement (EIS) is required,

- the proposed activity will be carried out in a declared area of outstanding biodiversity value and is likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a Species Impact Statement (SIS) and/or Biodiversity Development and Assessment Report (BDAR) is required, or
- there is insufficient information to make a decision.

Background

APO0001728 seeking approval under EL 8680 (granted 8/12/2017, expiry 8/12/2028) to undertake the Durnings DD project involving 4DDH (each to 400m depth).

Current security held and required for EL 8680 is $96,000.

Approved activities with rehabilitation outstanding on the title include:

1. APO0001699 for 8 Reverse Circulation and 4 diamond drill holes, approved 8 March 2024
2. APO0001660 for 6 Diamond drill holes (to be drilled on existing RC drill pads), approved 9 February 2024
3. APO0001677 for upto 900 auger holes, approved 8 February 2024
4. APO0001459 for 10 Reverse Circulation holes, approved 5 September 2023
5. MAAG0014749 for 3 Reverse Circulation holes, approved 7 September 2022

Proposed exploration activity

The proposed exploration activity (including details of the site, the existing environment, impact thresholds and impact management) are described in *APPLICATION TO UNDERTAKE ASSESSABLE PROSPECTING OPERATIONS APO0001728 Durnings DD* report and the information provided in support of the application.

The objective of the proposed exploration activity is to carry out works on, or to remove samples from, land for the purpose of testing the resource quality and/or quantity of the land. This is consistent with the objects of the *Mining Act 1992*, including to facilitate the discovery and development of resources in NSW.

No alternatives options to the proposed activity were considered.

Security

The application triggered a review of the assessed deposit to secure funding for the fulfilment of obligations if APO0001728 Durnings DD is approved.

Refer to RCE Record RCE0001878

Assessment of Impacts (Non-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 Environment's "*Guidelines for Division 5.1 assessments*". The results of this assessment are documented in the attached Review of Environmental Factors document.

The assessment has determined that the activity is not likely to significantly affect the environment, including threatened species or ecological communities (or their habitats), or declared areas of outstanding biodiversity value/critical habitat.

Additional terms (if approved)

No additional terms are required.

Summary

Based on the information provided in the *APPLICATION TO UNDERTAKE ASSESSABLE PROSPECTING OPERATIONS APO0001728 Durnings DD* report, and the Review of Environmental Factors document, the proposed activity has been assessed as is not likely to have a significant impact on the environment and therefore an EIS is not required.

The application has been assessed and the recommendation is to Approve the activity.

Certification

I, Nicole Wallwood, certify that I have reviewed and endorsed the contents of the attached Review of Environmental Factors document and, to the best of my knowledge, it is in accordance with the *Environmental Planning and Assessment Act 1979,* the Environmental Planning and Assessment Regulation 2021 and the Guidelines approved under clause 170 of the EP&A Regulation, and the information it contains is neither false nor misleading.

Recommendation

The Decision Maker, under delegation from the Minister:

- Assesses the environmental impact of APO0001728 Durnings DD and determines that the activity is is not likely to have a significant impact on the environment and therefore an EIS is not required under Part 5 of the *Environmental Planning and Assessment Act 1979*.
- Approve the activity pursuant to the *Mining Act 1992*.

Review of Environmental Factors document

Criteria	Air Impacts: Air quality impacts (including impacts on nearby sensitive receptors).

Potential impacts	No towns are located within 5 kilometres of the activity area. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to sensitive receptors. Potential air quality impacts may include: > particulates and emissions from vehicle exhausts, plant and machinery. > wind erosion and dust from disturbed soils during drilling and rehabilitation activities. > dust from vehicles travelling over tracks. > dust generation from drilling and rehabilitation activities.		
Proposed management controls	> Activities will comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Consultation with the homestead resident will continue to be undertaken to ensure the proximity is acceptable to them. > Activities will be relocated or managed if required to minimise impacts to sensitive receptors. > Impacts of any drilling limited to the immediate vicinity of drilling. > All disturbed areas to be rehabilitated as soon as reasonably practicable following surface disturbance. > Avoiding vehicle movements where possible > Not leaving vehicles idling when not required and limiting vehicle speed on unsealed roads. > Dust suppression will be in place during drilling by injecting water into the sample stream. > Haverford will implement all relevant procedures for managing potential air quality impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Air Impacts: Greenhouse or ozone impacts.		
Potential impacts	No towns are located within 5 kilometres of the activity area. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to sensitive receptors. Potential air quality impacts may include: > particulates and emissions from vehicle exhausts, plant and machinery. > wind erosion and dust from disturbed soils during drilling and rehabilitation activities. > dust from vehicles travelling over tracks. > dust generation from drilling and rehabilitation activities.		
Proposed management controls	> Activities will comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Consultation with the homestead resident will continue to be undertaken to ensure the proximity is acceptable to them. > Activities will be relocated or managed if required to minimise impacts to sensitive receptors. > Impacts of any drilling limited to the immediate vicinity of drilling. > All disturbed areas to be rehabilitated as soon as reasonably practicable following surface disturbance. > Avoiding vehicle movements where possible > Not leaving vehicles idling when not required and limiting vehicle speed on unsealed roads. > Dust suppression will be in place during drilling by injecting water into the sample stream. > Haverford will implement all relevant procedures for managing potential air quality impacts or managing complaints.		
Duration	5		
Application ranking	Positive		
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?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Air Impacts: Additional impacts on areas with degraded air quality.		
Potential impacts	No towns are located within 5 kilometres of the activity area. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to sensitive receptors. Potential air quality impacts may include: > particulates and emissions from vehicle exhausts, plant and machinery. > wind erosion and dust from disturbed soils during drilling and rehabilitation activities. > dust from vehicles travelling over tracks. > dust generation from drilling and rehabilitation activities.		
Proposed management controls	> Activities will comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Consultation with the homestead resident will continue to be undertaken to ensure the proximity is acceptable to them. > Activities will be relocated or managed if required to minimise impacts to sensitive receptors. > Impacts of any drilling limited to the immediate vicinity of drilling. > All disturbed areas to be rehabilitated as soon as reasonably practicable following surface disturbance. > Avoiding vehicle movements where possible > Not leaving vehicles idling when not required and limiting vehicle speed on unsealed roads. > Dust suppression will be in place during drilling by injecting water into the sample stream. > Haverford will implement all relevant procedures for managing potential air quality impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Water Impacts: Impacts from the use of surface or groundwater.		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		

Proposed management controls	> Comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Water will be sourced from the Condobolin water standpipe operated by Lachlan Shire Council, or a local landholder dam (only if permitted by the landholder). > If it rains such that ground conditions are too poor for operations to continue, then activities will be suspended until ground conditions improve, to avoid both surface water impacts and any damage to tracks. > No works will be completed on waterfront land. > All sediment and erosion controls will be managed in accordance with Blue Book. > Existing access tracks will be used wherever possible. > Boreholes will be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. > Non-toxic & biodegradable downhole consumables and fluids will be used where possible. > Sumps will be used to managed intersected groundwater mixed with drilling fluids/muds. > Any contaminated water will be disposed of at the nearest licenced waste facility or by an appropriate disposal provider. > Haverford will implement all relevant procedures for managing potential water impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from storage of water		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		
Proposed management controls	> Comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Water will be sourced from the Condobolin water standpipe operated by Lachlan Shire Council, or a local landholder dam (only if permitted by the landholder). > If it rains such that ground conditions are too poor for operations to continue, then activities will be suspended until ground conditions improve, to avoid both surface water impacts and any damage to tracks. > No works will be completed on waterfront land. > All sediment and erosion controls will be managed in accordance with Blue Book. > Existing access tracks will be used wherever possible. > Boreholes will be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. > Non-toxic & biodegradable downhole consumables and fluids will be used where possible. > Sumps will be used to managed intersected groundwater mixed with drilling fluids/muds. > Any contaminated water will be disposed of at the nearest licenced waste facility or by an appropriate disposal provider. > Haverford will implement all relevant procedures for managing potential water impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from changes to natural water bodies, wetlands or runoff patterns.		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		
Proposed management controls	> Comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Water will be sourced from the Condobolin water standpipe operated by Lachlan Shire Council, or a local landholder dam (only if permitted by the landholder). > If it rains such that ground conditions are too poor for operations to continue, then activities will be suspended until ground conditions improve, to avoid both surface water impacts and any damage to tracks. > No works will be completed on waterfront land. > All sediment and erosion controls will be managed in accordance with Blue Book. > Existing access tracks will be used wherever possible. > Boreholes will be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. > Non-toxic & biodegradable downhole consumables and fluids will be used where possible. > Sumps will be used to managed intersected groundwater mixed with drilling fluids/muds. > Any contaminated water will be disposed of at the nearest licenced waste facility or by an appropriate disposal provider. > Haverford will implement all relevant procedures for managing potential water impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Water Impacts: Impacts from aquifer interference, including changes to inter-aquifer connectivity.		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		
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Duration	5		
Application ranking	Low Adverse		

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	Water Impacts: Impacts from changes to flooding or tidal regimes.		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		
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Duration	5		
Application ranking	Negligible		
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	Water Impacts: Impacts from changes in surface or groundwater quality and quantity.		
Potential impacts	No works will be undertaken on waterfront land. Minor use of surface water from farm dams may occur, only where permitted by the landowner. Groundwater may be intersected during drilling and will require management in sumps. No groundwater is proposed to be taken. However, interception of groundwater may cause cross contamination and/or depressurisation of groundwater systems in drilling operations.		

Proposed management controls	> Comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Water will be sourced from the Condobolin water standpipe operated by Lachlan Shire Council, or a local landholder dam (only if permitted by the landholder). > If it rains such that ground conditions are too poor for operations to continue, then activities will be suspended until ground conditions improve, to avoid both surface water impacts and any damage to tracks. > No works will be completed on waterfront land. > All sediment and erosion controls will be managed in accordance with Blue Book. > Existing access tracks will be used wherever possible. > Boreholes will be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. > Non-toxic & biodegradable downhole consumables and fluids will be used where possible. > Sumps will be used to managed intersected groundwater mixed with drilling fluids/muds. > Any contaminated water will be disposed of at the nearest licenced waste facility or by an appropriate disposal provider. > Haverford will implement all relevant procedures for managing potential water impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: 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. > Soil compaction from construction/operations. > Contamination of soils from chemical spills. > Overflow from drill sumps onto surrounding soils. Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		
Proposed management controls	> Comply with title conditions and relevant codes of practice (Environmental Management and Rehabilitation). > Minimising vegetation clearing and surface disturbance. > Prevent causing any land degradation or pollution/contamination of land or water. > All sediment and erosion controls will be managed in accordance with Blue Book. > Existing access tracks to be used wherever possible. > Controls on sumps and management of chemicals to reduce risk to soils. > Boreholes to be constructed, operated and decommissioned in accordance with authority/title conditions, Departmental Guidelines and Codes of Practice to protect groundwater/aquifers. > Haverford will implement all relevant procedures for managing potential soil impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Impacts on land with high agricultural capability.		
Potential impacts	> Soil erosion and sediment laden runoff from disturbed areas/areas where vegetation has been removed. > Soil compaction from construction/operations. > Contamination of soils from chemical spills. > Overflow from drill sumps onto surrounding soils. Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		
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Duration	5		
Application ranking	Positive		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Loss of soil from wind or water erosion.		
Potential impacts	> Soil erosion and sediment laden runoff from disturbed areas/areas where vegetation has been removed. > Soil compaction from construction/operations. > Contamination of soils from chemical spills. > Overflow from drill sumps onto surrounding soils. Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		
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Duration	5		
Application ranking	Low Adverse		

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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Loss of structural integrity of the soil.		
Potential impacts	> Soil erosion and sediment laden runoff from disturbed areas/areas where vegetation has been removed. > Soil compaction from construction/operations. > Contamination of soils from chemical spills. > Overflow from drill sumps onto surrounding soils. Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		
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Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Soil & Stability Impacts: Increased land instability with high risks from land slides or subsidence.		
Potential impacts	> Soil erosion and sediment laden runoff from disturbed areas/areas where vegetation has been removed. > Soil compaction from construction/operations. > Contamination of soils from chemical spills. > Overflow from drill sumps onto surrounding soils. Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		

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Duration	5		
Application ranking	Negligible		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Noise & Vibration Impacts: Results in increased noise or vibration.		
Potential impacts	Sources of potential noise and vibration impacts include vehicles, drilling rigs, plant and machinery. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to the landowner. No significant adverse noise impacts are expected where management measures in this APO and REF are effectively implemented.		
Proposed management controls	Hours of operation are 24/7 for DD drilling and dayshift for RC drilling (if undertaken). No towns are located within 5 km of the activity area. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). No significant adverse noise impacts are anticipated due to the separation distances and intervening topography/vegetation. Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to the landowner. Haverford will implement all relevant procedures for managing potential noise impacts or managing complaints. > Comply with title conditions and relevant code of practice (Environmental Management). > Consultation with the homestead resident will continue to be undertaken to ensure the proximity is acceptable to them. > Activities will be relocated or managed if required to minimise impacts to sensitive receptors. > Impacts will be limited to immediate vicinity of exploration activity. > Comply with the landholder access agreement. > Maintain machinery and vehicles to minimise excessive noise. > Haverford will implement all relevant procedures for managing potential noise impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Noise & Vibration Impacts: Affects sensitive receptors.		
Potential impacts	Sources of potential noise and vibration impacts include vehicles, drilling rigs, plant and machinery. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to the landowner. No significant adverse noise impacts are expected where management measures in this APO and REF are effectively implemented.		
Proposed management controls	Hours of operation are 24/7 for DD drilling and dayshift for RC drilling (if undertaken). No towns are located within 5 km of the activity area. Proposed drilling is likely to be greater than 1km from the closest sensitive receiver (Bolwarra Homestead). No significant adverse noise impacts are anticipated due to the separation distances and intervening topography/vegetation. Consultation with the homestead resident has been undertaken and will continue to be undertaken to ensure the proximity is acceptable to them, particularly where the separation distance is less than 1km. Activities will be relocated or managed if required to minimise impacts to the landowner. Haverford will implement all relevant procedures for managing potential noise impacts or managing complaints. > Comply with title conditions and relevant code of practice (Environmental Management). > Consultation with the homestead resident will continue to be undertaken to ensure the proximity is acceptable to them. > Activities will be relocated or managed if required to minimise impacts to sensitive receptors. > Impacts will be limited to immediate vicinity of exploration activity. > Comply with the landholder access agreement. > Maintain machinery and vehicles to minimise excessive noise. > Haverford will implement all relevant procedures for managing potential noise impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Coastal Location & Processes: Affects coastal processes and coastal hazards, including those under projected climate change conditions.		
Potential impacts	N/A - not located in a coastal environment		
Proposed management controls	N/A - not located in a coastal environment		
Duration	5		
Application ranking	Positive		
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	Hazardous substances or chemicals: 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 which have the potential to build up residues in the environment, including in air, soils and water.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices . > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Haverford will implement all relevant procedures for managing potential hazardous substances and chemicals impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes & Emissions: 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. > Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, including in soils and water. > Increased waste in landfill from disposal of contaminated drilling wastes		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes & Emissions: Impacts on drinking water catchments, wetlands, natural water bodies, riparian zones or flood prone areas.		

Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes & Emissions: Impacts on groundwater recharge areas or areas with high water table.		
Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes and Emissions: Impacts on coastlines or dunes, alpine areas, karst features or other unique landforms.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Wastes & Emissions: Impacts on erosion prone areas, areas with slopes of greater than 18 degrees.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Wastes & Emissions: Impacts on subsidence or slip areas.		
Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		

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	Wastes & Emissions: Impacts on areas with acid sulphate, sodic or highly permeable soils.		
Potential impacts	Activities are to be conducted on Land and Soil Capability Classes 4 and 6. Class 4 land has moderate to high limitations for high impact land uses such as cropping, high-intensity grazing and horticulture. Class 6 land is of low capability and has very high limitations for high impact land uses. There is no Strategic Agricultural Land or known acid sulfate soils in the area of proposed activities. Soils in the area of proposed activities are generally of low to moderate fertility. Various soil categories lie within the proposed area of activities, including Chromosols and Rudosols on the Australian Soil Classification (ASC), and Non-Calcic Brown Soils and Lithosols on the Great Soil Group map.		
Proposed management controls	All waste material will be contained in appropriate waste containers during the activity. All waste will be disposed of at the nearest appropriately licensed waste disposal facility. RC drill samples (if RC drilling occurs) will be stored temporarily at each pad in biodegradable bags. Material meeting the criteria of VENM will be returned to the drillhole or used in rehabilitation where appropriate. Any sulfidic sample materials will be removed off site to an appropriate licenced disposal facility. DD core will be removed from site for cutting and sampling. On completion of the drill program the samples will be stored and managed off-site by Haverford. Prior to disposal, drill cores will be offered to the Secretary of the Department of Regional NSW for preservation. Any topsoil which is removed as part of the clearing process will be stockpiled for re-use in the rehabilitation process. No radioactive, hazardous or restricted wastes are anticipated from the exploration program.		
Duration	5		
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	Wastes & Emissions: Impacts on areas with salinity or potential salinity problems.		
Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes & Emissions: Impacts on areas with degraded or contaminated land.		
Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Wastes & Emissions: Impacts on areas with degraded or contaminated water (ground or surface).		

Potential impacts	The activity area is not known to be located in any of the following: drinking water catchments, wetlands, natural waterbodies, riparian zones or flood prone areas, groundwater recharge areas or areas with high water table, coastlines or dunes, alpine areas, karst features or other unique landforms, erosion prone areas or areas with slopes greater than 18°, subsidence or slip areas, areas with acid sulfate, sodic or highly permeable soils, areas with salinity or potential salinity problems, areas with degraded or contaminated land, and areas with degraded or contaminated water (ground or surface). Therefore, impacts to the above areas is not considered likely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Wastes (including any drilling by-products) to be collected, segregated and disposed of lawfully. > All chemical and hydrocarbons will be transported and stored in the appropriate containers and vessels, and on bunded pallets where required. > Chemicals used will be non-toxic, biodegradable alternatives unless no substitution is possible. > SDS sheets for all chemicals will be available at the drill site and all personnel have access to electronic copies on a centralised DMS via their personal devices. > Controls on sumps and management of chemicals to reduce risk to environment. > Use of pesticides, herbicides, fertilisers or other chemicals will comply with legislative requirements > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential waste/emission impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Vegetation: Any clearing or modification of vegetation (including impacts on wildlife corridors, remnant vegetation & habitat for species of conservation significance).		

Potential impacts	Extent of clearing: A total area of 3,600 m2 would be disturbed (surface disturbance and vegetation clearing) for the activity. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. The clearing is localised and temporary. Vegetation present: There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. AREA Environmental were engaged to review photographs of the vegetation in the activity area for this APO. The following was concluded: 1. The activity area contains: > Mostly a heavily modified PCT105 Poplar Box grassy woodland on flats mainly in the Cobar Peneplain Bioregion and Murray Darling Depression Bioregion > Some areas of PCT184: Dwyer's Red Gum - White Cypress Pine - Currawang low shrub-grass woodland of the Cobar Peneplain Bioregion and PCT 104 – Gum Coolabah woodland on sedimentary substrates mainly in the Cobar Peneplain Bioregion 2. These PCTs do not have associated TECs. 3. These PCTs have a suite of associations with threatened species. 4. These PCTs have been substantially modified by agricultural practices such as clearing and ploughing, the likelihood of threatened species being present and affected by the proposal are low. 5. A combination of desktop assessments and applying professional judgement, with substantial familiarity in the region, has shown vulnerable species, populations and communities are unlikely to be significantly affected by the proposal. In summary no further ecological assessment is considered necessary. 6. No exclusion areas are required. In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental, they will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. AREA would not be consulted if the collar location is within the Cropping Area as vegetation will be cleared due to ploughing/cropping between March 2024 - November 2024. Drilling will only be undertaken in the Cropping Area if approved by the landholder. BioNet records did not include any listed vulnerable or endangered threatened flora species in the activity area. A MNES search with a 5km buffer identified: a) 9 migratory species or their habitat may occur, including one species (Fork-tailed Swift) and its habitat that is likely to occur b) 4 TEC that are Endangered or Critically Endangered that may or are likely to occur, including: - Weeping Myall Woodlands - Endangered - Poplar Box Grassy Woodland on Alluvial Plains - Endangered - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland - Critically Endangered - Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia - Endangered c) 31 Listed Threatened Species may or are likely to occur d) Activity area is within 400-800km of Ramsar Wetlands Potential impacts include: - Vegetation removal may affect threatened species habitat/abundance. - Areas cleared for exploration activities are temporarily not available for flora habitat. - Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact vegetation. - Use of pesticides, herbicides, fertilisers or other chemicals have the potential to build up residues in the environment, that may affect vegetation. - Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, that may affect vegetation. - Spread of weeds, pest animals and animal/plant diseases may affect vegetation. No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Haverford will minimise the extent of vegetation clearing to as low as practicable. > No trees or shrubs would be removed. > Vegetation clearing would be limited to groundcover only. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental, they will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. AREA would not be consulted if the collar location is within the Cropping Area as vegetation will be cleared due to ploughing/cropping between March 2024 - November 2024. Drilling will only be undertaken in the Cropping Area if approved by the landholder. > Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. > All habitat resources will be salvaged prior to disturbance and returned to the area during rehabilitation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential vegetation impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Threatened Fauna Species: Any adverse effect on the life cycle of any threatened species such that a viable local population of the species is likely to be placed at risk of extinction.		
Potential impacts	BioNet records in the activity area are limited to species which are classed as Not Listed as Threatened. AREA Environmental have concluded that the native PCTs present are in low condition due to agricultural activities and the likelihood of threatened species being present and affected by the proposal are low. Therefore, clearing of the native PCTs present is not likely to result in a significant impact to threatened species, threatened populations, threatened ecological communities, or their habitat. Potential impacts: > Vegetation removal can decrease available habitat for species and displace species from regular place of residence. > Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna. > Drilling sumps can be a hazard for fauna. > Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, affecting species habitat. > 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. No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Minimise extent of vegetation clearing and surface disturbance to as low as practicable. > All sediment and erosion controls to be managed in accordance with Blue Book. > Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. > No trees or shrubs would be removed. > No removal of vegetation in waterfront land. > Vegetation clearing would be limited to groundcover only. > Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. > All habitat resources will be salvaged prior to disturbance and returned to the area during rehabilitation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential fauna impacts or managing complaints.		
Duration	5		

Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Threatened Flora Species: Any adverse effect on the life cycle of any threatened species such that a viable local population of the species is likely to be placed at risk of extinction.		
Potential impacts	BioNet records in the activity area are limited to species which are classed as Not Listed as Threatened. AREA Environmental have concluded that the native PCTs present are in low condition due to agricultural activities and the likelihood of threatened species being present and affected by the proposal are low. Therefore, clearing of the native PCTs present is not likely to result in a significant impact to threatened species, threatened populations, threatened ecological communities, or their habitat. Potential impacts: > Vegetation removal can decrease available habitat for species and displace species from regular place of residence. > Mobilisation of pollutants (such as hydrocarbons) in soils, air or waters can potentially impact fauna. > Drilling sumps can be a hazard for fauna. > Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, affecting species habitat. > 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. No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Minimise extent of vegetation clearing and surface disturbance to as low as practicable. > All sediment and erosion controls to be managed in accordance with Blue Book. > Prevent adverse impacts to fauna caused by vegetation clearing, including relocation of resident fauna. > No trees or shrubs would be removed. > No removal of vegetation in waterfront land. > Vegetation clearing would be limited to groundcover only. > Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. > All habitat resources will be salvaged prior to disturbance and returned to the area during rehabilitation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential fauna impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Areas of outstanding biodiversity value/Critical habitat: This includes: a. declared areas of outstanding biodiversity value under the Biodiversity Conservation Act 2016 b. areas declared critical habitat under the Fisheries Management Act 1994.		

Potential impacts	There are no: > declared areas of outstanding biodiversity value under the Biodiversity Conservation Act 2016 (NSW) in the area of proposed activities. > areas declared as critical habitat under the Fisheries Management Act 1994 (NSW) in the area of proposed activities. Therefore, impacts to AOBV/Critical habitat are unlikely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Prevent introduction and spread of weeds, pest animals & animal and plant diseases i.e. "come clean, go clean" protocol. > Comply with any landholder or legislative biosecurity requirements. > Comply with internal procedures for managing fire risks. > Comply with any directions from the NSW Rural Fire Service. > Haverford will implement all relevant procedures for managing potential ecological/biosecurity impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Endangered ecological community or critically endangered ecological community: Whether the activity: □ is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or □ is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.		
Potential impacts	No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.		

Proposed management controls	Refer to mitigation measures for Vegetation and Threatened Species in this REF. The topography is relatively low relief with majority of the activity area with slopes <5%. There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. Detailed consideration of vegetation is provided in the REF supporting this APO, including the outcome of review of the activity area by AREA Environmental. In summary, the following is concluded: > The photos considered in the activity area contain native PCTs but do not have associated TECs. > PCTs in the activity area have a suite of associations with threatened species. > PCTs have been substantially modified by agricultural practices such as clearing and ploughing. Therefore, the likelihood of threatened species being present and affected by the proposal are low. > No exclusion areas are required and no further ecological assessment is considered necessary. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental (and not within the Cropping Area), AREA Environmental will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. SEED search 17.4.24 – Proposed drilling within land zoned RU1. Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas. 3 PCTs identified within proposed activity area in SEED: PCT 184, PCT 53 (associated with State TEC 10065 – CEEC) and PCT 72. From APO: applicant also notes grassed area associated with PCT 250: Derived tussock grassland of the central western plains and lower slopes of NSW - associated with Federally listed TEC 20395 (LISTED IN MNES REPORT) **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity. **No other issues of environmental sensitivity within proposed drilling area – identified in SEED map. MNES report dated 14/2/24: Endangered TECs likely to occur within the area include: • Grey Box (Eucalyptus microcarpa) In feature area Grassy Woodlands and Derived Native Grasslands of South-eastern Australia • Poplar Box Grassy Woodland on Alluvial In feature area Plains Endangered species likely to occur in the area: Major Mitchell's Cockatoo (eastern), South-eastern Hooded Robin, Australian Painted Snipe, Koala. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area.

Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Habitat of a threatened species or ecological community		
Potential impacts	No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.		

Proposed management controls	Refer to mitigation measures for Vegetation and Threatened Species in this REF. The topography is relatively low relief with majority of the activity area with slopes <5%. There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. Detailed consideration of vegetation is provided in the REF supporting this APO, including the outcome of review of the activity area by AREA Environmental. In summary, the following is concluded: > The photos considered in the activity area contain native PCTs but do not have associated TECs. > PCTs in the activity area have a suite of associations with threatened species. > PCTs have been substantially modified by agricultural practices such as clearing and ploughing. Therefore, the likelihood of threatened species being present and affected by the proposal are low. > No exclusion areas are required and no further ecological assessment is considered necessary. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental (and not within the Cropping Area), AREA Environmental will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. SEED search 17.4.24 – Proposed drilling within land zoned RU1. Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas. 3 PCTs identified within proposed activity area in SEED: PCT 184, PCT 53 (associated with State TEC 10065 – CEEC) and PCT 72. From APO: applicant also notes grassed area associated with PCT 250: Derived tussock grassland of the central western plains and lower slopes of NSW - associated with Federally listed TEC 20395 (LISTED IN MNES REPORT) **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity. **No other issues of environmental sensitivity within proposed drilling area – identified in SEED map. MNES report dated 14/2/24: Endangered TECs likely to occur within the area include: • Grey Box (Eucalyptus microcarpa) In feature area Grassy Woodlands and Derived Native Grasslands of South-eastern Australia • Poplar Box Grassy Woodland on Alluvial In feature area Plains Endangered species likely to occur in the area: Major Mitchell's Cockatoo (eastern), South-eastern Hooded Robin, Australian Painted Snipe, Koala. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**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	No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed.		

Proposed management controls	Refer to mitigation measures for Vegetation and Threatened Species in this REF. The topography is relatively low relief with majority of the activity area with slopes <5%. There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. Detailed consideration of vegetation is provided in the REF supporting this APO, including the outcome of review of the activity area by AREA Environmental. In summary, the following is concluded: > The photos considered in the activity area contain native PCTs but do not have associated TECs. > PCTs in the activity area have a suite of associations with threatened species. > PCTs have been substantially modified by agricultural practices such as clearing and ploughing. Therefore, the likelihood of threatened species being present and affected by the proposal are low. > No exclusion areas are required and no further ecological assessment is considered necessary. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental (and not within the Cropping Area), AREA Environmental will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. SEED search 17.4.24 – Proposed drilling within land zoned RU1. Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas. 3 PCTs identified within proposed activity area in SEED: PCT 184, PCT 53 (associated with State TEC 10065 – CEEC) and PCT 72. From APO: applicant also notes grassed area associated with PCT 250: Derived tussock grassland of the central western plains and lower slopes of NSW - associated with Federally listed TEC 20395 (LISTED IN MNES REPORT) **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity. **No other issues of environmental sensitivity within proposed drilling area – identified in SEED map. MNES report dated 14/2/24: Endangered TECs likely to occur within the area include: • Grey Box (Eucalyptus microcarpa) In feature area Grassy Woodlands and Derived Native Grasslands of South-eastern Australia • Poplar Box Grassy Woodland on Alluvial In feature area Plains Endangered species likely to occur in the area: Major Mitchell's Cockatoo (eastern), South-eastern Hooded Robin, Australian Painted Snipe, Koala. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area.		
Duration	5		
Application ranking	Low Adverse		
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	Key Threatening Processes: As outlined in Schedule 4 of Biodiversity Conservation Act 2016. Includes: a. alteration, removal, clearly or degradation of habitat and native vegetation b. loss of hollow bearing trees c. removal of dead wood and dead trees d. invasion and establishment of exotic species.		

Potential impacts	Potential impacts: > Vegetation removal and activities can temporarily impact wildlife corridors. > Areas cleared for exploration activities are temporarily not available for fauna habitat. > Removal of vegetation and barriers created by access tracks may interrupt movement of fauna species. > Drilling sumps can be a hazard for fauna. > Presence of people and noise may disturb fauna or prevent usual activities. The topography is relatively low relief with majority of the activity area with slopes <5%. There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. Detailed consideration of vegetation is provided in the REF supporting this APO, including the outcome of review of the activity area by AREA Environmental. In summary, the following is concluded: > The photos considered in the activity area contain native PCTs but do not have associated TECs. > PCTs in the activity area have a suite of associations with threatened species. > PCTs have been substantially modified by agricultural practices such as clearing and ploughing. Therefore, the likelihood of threatened species being present and affected by the proposal are low. > No exclusion areas are required and no further ecological assessment is considered necessary. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental (and not within the Cropping Area), AREA Environmental will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. SEED search 17.4.24 – Proposed drilling within land zoned RU1. Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas. 3 PCTs identified within proposed activity area in SEED: PCT 184, PCT 53 (associated with State TEC 10065 – CEEC) and PCT 72. From APO: applicant also notes grassed area associated with PCT 250: Derived tussock grassland of the central western plains and lower slopes of NSW - associated with Federally listed TEC 20395 (LISTED IN MNES REPORT) **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity. **No other issues of environmental sensitivity within proposed drilling area – identified in SEED map. MNES report dated 14/2/24: Endangered TECs likely to occur within the area include: • Grey Box (Eucalyptus microcarpa) In feature area Grassy Woodlands and Derived Native Grasslands of South-eastern Australia • Poplar Box Grassy Woodland on Alluvial In feature area Plains Endangered species likely to occur in the area: Major Mitchell's Cockatoo (eastern), South-eastern Hooded Robin, Australian Painted Snipe, Koala. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Implement appropriate controls on sumps to minimise risk of fauna entry/injury. > Haverford will implement all relevant procedures for managing potential fauna impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Barriers to movement of fauna: Any potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement.		
Potential impacts	Potential impacts: > Vegetation removal and activities can temporarily impact wildlife corridors. > Areas cleared for exploration activities are temporarily not available for fauna habitat. > Removal of vegetation and barriers created by access tracks may interrupt movement of fauna species. > Drilling sumps can be a hazard for fauna. > Presence of people and noise may disturb fauna or prevent usual activities. The topography is relatively low relief with majority of the activity area with slopes <5%. There is no mapped Terrestrial Biodiversity under the Lachlan Shire Local Environmental Plan 2013 in the activity area. There are no mapped Biodiversity Values in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. Detailed consideration of vegetation is provided in the REF supporting this APO, including the outcome of review of the activity area by AREA Environmental. In summary, the following is concluded: > The photos considered in the activity area contain native PCTs but do not have associated TECs. > PCTs in the activity area have a suite of associations with threatened species. > PCTs have been substantially modified by agricultural practices such as clearing and ploughing. Therefore, the likelihood of threatened species being present and affected by the proposal are low. > No exclusion areas are required and no further ecological assessment is considered necessary. > In the event a collar location is proposed within a vegetation community not yet reviewed by AREA Environmental (and not within the Cropping Area), AREA Environmental will be consulted to confirm the PCT, potential for threatened species, and whether the activity can proceed without causing significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats. SEED search 17.4.24 – Proposed drilling within land zoned RU1. Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas. 3 PCTs identified within proposed activity area in SEED: PCT 184, PCT 53 (associated with State TEC 10065 – CEEC) and PCT 72. From APO: applicant also notes grassed area associated with PCT 250: Derived tussock grassland of the central western plains and lower slopes of NSW - associated with Federally listed TEC 20395 (LISTED IN MNES REPORT) **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity. **No other issues of environmental sensitivity within proposed drilling area – identified in SEED map. MNES report dated 14/2/24: Endangered TECs likely to occur within the area include: • Grey Box (Eucalyptus microcarpa) In feature area Grassy Woodlands and Derived Native Grasslands of South-eastern Australia • Poplar Box Grassy Woodland on Alluvial In feature area Plains Endangered species likely to occur in the area: Major Mitchell's Cockatoo (eastern), South-eastern Hooded Robin, Australian Painted Snipe, Koala. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Implement appropriate controls on sumps to minimise risk of fauna entry/injury. > Haverford will implement all relevant procedures for managing potential fauna impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?	Partly	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Ecological & Biosecurity Impacts: Any threat to the biological diversity or ecological integrity of an ecological community.		
Potential impacts	Potential impacts: > Vegetation removal can decrease available habitat for species and displace species from regular place of residence. > Areas used for exploration activities are temporarily 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, which may affect habitat. > Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, which may affect habitat. > Spread of weeds, pest animals and animal/plant diseases. > Plant and machinery comprises a potential bushfire ignition source.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Prevent introduction and spread of weeds, pest animals & animal and plant diseases i.e. "come clean, go clean" protocol. > Comply with any landholder or legislative biosecurity requirements. > Comply with internal procedures for managing fire risks. > Comply with any directions from the NSW Rural Fire Service. > Haverford will implement all relevant procedures for managing potential ecological/biosecurity impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Ecological & Biosecurity Impacts: Creates a biosecurity risk or introduces genetically modified organisms into an area. Includes impacts from the introduction of: a. mobilisation of pollutants b. animal pests, c. plant pests and diseases, d. animal diseases, e. noxious weeds, or f. genetically modified organisms.		
Potential impacts	Potential impacts: > Vegetation removal can decrease available habitat for species and displace species from regular place of residence. > Areas used for exploration activities are temporarily 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, which may affect habitat. > Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, which may affect habitat. > Spread of weeds, pest animals and animal/plant diseases. > Plant and machinery comprises a potential bushfire ignition source.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Prevent introduction and spread of weeds, pest animals & animal and plant diseases i.e. "come clean, go clean" protocol. > Comply with any landholder or legislative biosecurity requirements. > Comply with internal procedures for managing fire risks. > Comply with any directions from the NSW Rural Fire Service. > Haverford will implement all relevant procedures for managing potential ecological/biosecurity impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Ecological & Biosecurity Impacts: Likely to cause a significant bushfire risk.		
Potential impacts	Potential impacts: > Vegetation removal can decrease available habitat for species and displace species from regular place of residence. > Areas used for exploration activities are temporarily 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, which may affect habitat. > Soil erosion and sediment laden runoff from disturbed areas, that could lead to soil or water contamination or land degradation, which may affect habitat. > Spread of weeds, pest animals and animal/plant diseases. > Plant and machinery comprises a potential bushfire ignition source. SEED search 17.4.24 – Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Implement all mitigation measures under Vegetation and Threatened Species in this REF. > Prevent introduction and spread of weeds, pest animals & animal and plant diseases i.e. "come clean, go clean" protocol. > Comply with any landholder or legislative biosecurity requirements. > Comply with internal procedures for managing fire risks. > Comply with any directions from the NSW Rural Fire Service. > Haverford will implement all relevant procedures for managing potential ecological/biosecurity impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Community Resources: Any degradation of infrastructure or significant increase in the demand for services and infrastructure resources.		

Potential impacts	The activity requires the use of local sealed roads and unsealed access roads managed by Lachlan Shire Council, as well as internal property access roads managed by the landowner.		
Proposed management controls	Water may be sourced from the Condobolin Water Standpipe (if required) or from a local dam if permitted by the landholder. The drilling operations are self-sufficient on-site and do not require any connection to services. Waste disposal will be undertaken at a licenced waste facility or by a suitable waste disposal provider. The activity is temporary and not likely to significantly increase the demand for services and infrastructure.		
Duration	5		
Application ranking	Negligible		
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	Community Resources: Any diversion of resources to the detriment of other communities or natural systems.		
Potential impacts	The activity is not likely to result in any diversion of resources to the detriment of other communities or natural systems.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
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 Resources: 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 on the the following basis: > Areas used for exploration activities are temporarily removed as a natural resource. > No timber would be removed by the activity. > Water use would not be undertaken in a manner that would disrupt, deplete or destroy a natural resource. > Soils will be managed and rehabilitated to ensure the soil resource is maintained and not degraded.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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 Resources: Any disruption of existing activities which rely on natural resources, including forestry, farming or extractive industries (or reduction of options for future activities).		
Potential impacts	The activity will be rehabilitated to allow ongoing farming (grazing/cropping) activities on pasture/native vegetation. The disruption is temporary only and is not likely to cause long term impacts to natural resources relied upon for grazing/cropping.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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 Resources: Any use which results in the degradation of any area reserved for conservation purposes.		

Potential impacts	The activity is not likely to degrade an area reserved for conservation purposes as it is not known to be located on or near the following: > land reserved or acquired under the National Parks and Wildlife Act 1974 including national park, nature reserve, karst conservation reserve, historic site, regional park, state conservation area, Aboriginal areas, wild rivers and wildlife refuges. > land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. > land declared as an aquatic reserve or marine park under the Marine Estate Management Act 2014. > land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. > land reserved or dedicated under the Crown Lands Act 1989/Crown Lands Management Act 2016 (as applicable) for the preservation of flora, fauna, geological formations, or for other environmental protection purposes. > land identified as wilderness or declared a wilderness area under the Wilderness Act 1987. > land subject to a Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. > land subject to a Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. > conservation agreements on private land (including trust agreements under the now repealed Nature Conservation Trust Act 2001. > property vegetation plans made under the now-repealed Native Vegetation Act 2003. > registered property agreements under the repealed Native Vegetation Conservation Act 1997. > land identified in an environmental planning instrument (such as the Council's Local Environmental Plan) as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Sensitive Land Impacts: Impacts on National parks and other areas reserved or dedicated or acquired under the National Parks and Wildlife Act 1974.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		

Criteria	Sensitive Land Impacts: Land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. This includes: a. Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. b. Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. c. Existing conservation agreements that continue to have effect even where legislation has been repealed: Trust agreements under the now repealed Nature Conservation Trust Act 2001 Property vegetation plans made under the now-repealed Native Vegetation Act 2003 Registered property agreements under the repealed Native Vegetation Conservation Act 1997		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on aquatic reserves or marine parks declared under the Marine Estate Management Act 2014. Impacts on Coastal Zone as defined in the Coastal Management Act 2016.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Fishing grounds and commercial fish breeding or nursery areas.		

Potential impacts	The activity is not likely to degrade an area reserved for conservation purposes as it is not known to be located on or near the following: > land reserved or acquired under the National Parks and Wildlife Act 1974 including national park, nature reserve, karst conservation reserve, historic site, regional park, state conservation area, Aboriginal areas, wild rivers and wildlife refuges. > land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. > land declared as an aquatic reserve or marine park under the Marine Estate Management Act 2014. > land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. > land reserved or dedicated under the Crown Lands Act 1989/Crown Lands Management Act 2016 (as applicable) for the preservation of flora, fauna, geological formations, or for other environmental protection purposes. > land identified as wilderness or declared a wilderness area under the Wilderness Act 1987. > land subject to a Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. > land subject to a Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. > conservation agreements on private land (including trust agreements under the now repealed Nature Conservation Trust Act 2001. > property vegetation plans made under the now-repealed Native Vegetation Act 2003. > registered property agreements under the repealed Native Vegetation Conservation Act 1997. > land identified in an environmental planning instrument (such as the Council's Local Environmental Plan) as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Sensitive Land Impacts: Impacts on other sensitive lands including: a. Land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. b. Drinking water catchment protection areas - land declared to be a 'controlled area' or a 'special area' under the Water NSW Act 2014, or a 'special area' under the Water Management Act 2000 or Hunter Water Act 1991. c. Waterfront land as defined under the Water Management Act 2000.		

Potential impacts	The activity is not likely to degrade an area reserved for conservation purposes as it is not known to be located on or near the following: > land reserved or acquired under the National Parks and Wildlife Act 1974 including national park, nature reserve, karst conservation reserve, historic site, regional park, state conservation area, Aboriginal areas, wild rivers and wildlife refuges. > land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. > land declared as an aquatic reserve or marine park under the Marine Estate Management Act 2014. > land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. > land reserved or dedicated under the Crown Lands Act 1989/Crown Lands Management Act 2016 (as applicable) for the preservation of flora, fauna, geological formations, or for other environmental protection purposes. > land identified as wilderness or declared a wilderness area under the Wilderness Act 1987. > land subject to a Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. > land subject to a Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. > conservation agreements on private land (including trust agreements under the now repealed Nature Conservation Trust Act 2001. > property vegetation plans made under the now-repealed Native Vegetation Act 2003. > registered property agreements under the repealed Native Vegetation Conservation Act 1997. > land identified in an environmental planning instrument (such as the Council's Local Environmental Plan) as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Sensitive Land Impacts: Impacts on land reserved or dedicated within the meaning of the Crown Lands Act 1989/Crown Lands Management Act 2016 for preservation of the environment or other environmental protection purposes.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on land identified as wilderness or declared a wilderness area under the Wilderness Act 1987.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Lands: Impacts on wetlands of international significance designated under the Ramsar Convention on Wetlands and those designated as a nationally important wetland in the Directory of Important Wetlands of Australia.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on land identified in an environmental planning instrument as being of biodiversity / conservation significance or zoned for environmental conservation, protection and/or management. Includes Coastal Wetlands and Littoral rainforests under State Environmental Planning Policy (Resilience and Hazards) 2021.		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on Aboriginal heritage protection areas: a. Aboriginal places and objects under the National Parks and Wildlife Act 1974 b. Areas of Aboriginal cultural significance identified in an environmental planning instrument.		
Potential impacts	N/A		

Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on heritage protection areas (historic or natural): a. Nationally and internationally recognised heritage sites or areas (World Heritage List, National Heritage List of Commonwealth Heritage List) b. Items listed on State Heritage c. Heritage items and conservation areas identified in an environmental planning instrument		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on community land classified under the Local Government Act 1993 (for which a plan of management has been prepared).		
Potential impacts	N/A		
Proposed management controls	N/A		
Duration	N/A		
Application ranking	N/A		
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**	N/A
Can the impacts be mitigated?	N/A	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	N/A		
Criteria	Sensitive Land Impacts: Impacts on bushfire prone areas.		

Potential impacts	The activity is not likely to degrade an area reserved for conservation purposes as it is not known to be located on or near the following: > land reserved or acquired under the National Parks and Wildlife Act 1974 including national park, nature reserve, karst conservation reserve, historic site, regional park, state conservation area, Aboriginal areas, wild rivers and wildlife refuges. > land subject to a 'conservation agreement' under the National Parks and Wildlife Act 1974 and/or the Biodiversity Conservation Act 2016. > land declared as an aquatic reserve or marine park under the Marine Estate Management Act 2014. > land within a state forest set aside under the Forestry Act 2012 for conservation values. This includes flora reserves and special management (and other) zones. > land reserved or dedicated under the Crown Lands Act 1989/Crown Lands Management Act 2016 (as applicable) for the preservation of flora, fauna, geological formations, or for other environmental protection purposes. > land identified as wilderness or declared a wilderness area under the Wilderness Act 1987. > land subject to a Biobanking agreement (established under the now repealed Threatened Species Conservation Act 1995) or a Biodiversity Stewardship agreement established under the Biodiversity Conservation Act 2016. > land subject to a Wildlife Refuge agreement established under the Biodiversity Conservation Act 2016. > conservation agreements on private land (including trust agreements under the now repealed Nature Conservation Trust Act 2001. > property vegetation plans made under the now-repealed Native Vegetation Act 2003. > registered property agreements under the repealed Native Vegetation Conservation Act 1997. > land identified in an environmental planning instrument (such as the Council's Local Environmental Plan) as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management. SEED search 17.4.24 – Bushfire Prone Land – Veg Category 3 (medium risk) with some Cat 1 (highest risk) in denser vegetated areas.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing consultation with the landholder to ensure natural resources are managed in accordance with their requirements. > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential natural resource impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Social Impacts: Any impacts which result in a change in the demographic structure of the community, including changes to workforce or industry structure of the area/region. Including change in demand for community resources (eg community facilities, community services and labour force).		
Potential impacts	The activity is not likely to result in a change to the demographic structure of the community as there is no significant employment demand is generated by the activity. Exploration activities are relatively common in the region and therefore the activity is not likely to change the industry structure of the region.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		

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	Social Impacts: Any environmental impact that may cause substantial change or disruption to the community (including loss of facilities or loss of community identity).		
Potential impacts	The activity is not likely to have an environmental impact that may cause substantial change or disruption to the community given it is undertaken in an isolated location with minimal interaction with the local community. It would not result in any loss of facilities or community links/identity.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Social Impacts: Any impacts which result in some individuals or communities being significantly disadvantaged (e.g. change to community facilities, services or labour force).		
Potential impacts	The activity is not likely to result in some individuals or communities being significantly disadvantaged given the demand for community resources is low and temporary. Use of local facilities and services is limited to a small number of company employees and contractors, and is not likely to compete with the demand from the local community.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Social Impacts: Any impacts on the health, safety, privacy or welfare of individuals or communities caused by factors such as pollution, odour, noise, vibration, lighting, visual impacts, etc).		
Potential impacts	The activity is not likely to result in any impacts on the health, safety, privacy or welfare of individuals or communities because of factors such as pollution, odour, noise, vibration, lighting, visual impacts given it is undertaken in an isolated location away from sensitive receivers.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Social Impacts: Effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?		
Potential impacts	There are no known places or buildings having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations in the activity area. A sensitive area of a personal nature to the landholder has also been designated as an exclusion zone for all exploration activities. Therefore, impacts are unlikely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Social Impacts: Impacts on communities with strong sense of identity.		
Potential impacts	The activity is not likely to have an environmental impact that may cause substantial change or disruption to the community given it is undertaken in an isolated location with minimal interaction with the local community. It would not result in any loss of facilities or community links/identity.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		

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	Social Impacts: Impacts on disadvantaged communities.		
Potential impacts	The activity is not likely to have an environmental impact that may cause substantial change or disruption to the community given it is undertaken in an isolated location with minimal interaction with the local community. It would not result in any loss of facilities or community links/identity.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Ongoing community and landholder consultation. > Rehabilitation to occur as soon as practicable after completion of activity. > Haverford will implement all relevant procedures for managing potential social impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Economic Impacts: Any impacts which may affect economic activity (positive or negative), including a decrease to net economic welfare.		
Potential impacts	Minimal increase in demand for accommodation, food, mechanical and fuel supplies but not large enough to warrant significant changes in supply. This is a positive economic impact.		
Proposed management controls	> Ongoing community and landholder consultation. > Haverford will implement all relevant procedures for managing potential economic impacts or managing complaints.		
Duration	5		
Application ranking	Positive		
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	Economic Impacts: Any impacts that result in a decrease in the economic stability of the community.		
Potential impacts	Minimal increase in demand for accommodation, food, mechanical and fuel supplies but not large enough to warrant significant changes in supply. This is a positive economic impact.		
Proposed management controls	> Ongoing community and landholder consultation. > Haverford will implement all relevant procedures for managing potential economic impacts or managing complaints.		

Duration	5		
Application ranking	Positive		
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	Economic Impacts: Any impacts which result in a change to the public sector revenue or expenditure base.		
Potential impacts	Minimal increase in demand for accommodation, food, mechanical and fuel supplies but not large enough to warrant significant changes in supply. This is a positive economic impact.		
Proposed management controls	> Ongoing community and landholder consultation. > Haverford will implement all relevant procedures for managing potential economic impacts or managing complaints.		
Duration	5		
Application ranking	Positive		
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	Heritage Impacts: Any impacts on a locality, place, landscape, building or archaeological relic of heritage significance.		
Potential impacts	There are no known historic heritage sites or items in the activity area, or in the immediate surrounding area. Therefore, impacts are considered unlikely.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any historic heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Aesthetic Impacts: Any impacts on the visual or scenic landscape, including lighting, venting or flaring of gas.		
Potential impacts	Potential visual impacts are temporary and may include: > Temporary impact on aesthetics of the locality > Lighting during night time operations and use of access tracks by vehicles at night may affect local amenity There is limited potential to significantly impact on visual or scenic landscape given the isolated location of the activity.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Rehabilitation to occur as soon as practicable after completion of activity. > Use of lighting to be limited to what is essential for safe operations during nightshift, and to be only directed towards drilling operations. > Haverford will implement all relevant procedures for managing potential aesthetic impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Aesthetic Impacts: Areas or items of high aesthetic or scenic value.		
Potential impacts	Potential visual impacts are temporary and may include: > Temporary impact on aesthetics of the locality > Lighting during night time operations and use of access tracks by vehicles at night may affect local amenity There is limited potential to significantly impact on visual or scenic landscape given the isolated location of the activity.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Rehabilitation to occur as soon as practicable after completion of activity. > Use of lighting to be limited to what is essential for safe operations during nightshift, and to be only directed towards drilling operations. > Haverford will implement all relevant procedures for managing potential aesthetic impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	Cultural Impacts: Any disturbance of the ground surface or any culturally modified trees (e.g. a scar tree).		
Potential impacts	Ground disturbance is proposed but is temporary only. No trees will be removed as part of the activity. There are no known culturally modified trees recorded in the activity area. AHIMS search dated 11/3/24 – nil Aboriginal sites or places identified in the proposed drilling area. From APO: The activity area is not subject to any native title claims. According to AHIMS, there are no Aboriginal objects and places within the activity area. The activity area does contain landscape features (i.e. within 200m of waters) that may be associated with Aboriginal objects. Proceeding to Step 3 of the Due Diligence process is only required where the proposed activity is located on land with landscape features associated with Aboriginal object and on land that is not disturbed. The location of planned drilling within the activity area is considered to be disturbed land on the basis that it is that it has been subject to human activity that remains clear and observable, specifically clearing of vegetation for pastoral activities. Therefore, proceeding to Step 3 of the Due Diligence process is not required and the activity can proceed with caution without applying for an AHIP.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Any impacts on known Aboriginal objects or Aboriginal places.		
Potential impacts	According to AHIMS, there are no Aboriginal objects and places within the activity area. AHIMS search dated 11/3/24 – nil Aboriginal sites or places identified in the proposed drilling area. From APO: The activity area is not subject to any native title claims. According to AHIMS, there are no Aboriginal objects and places within the activity area. The activity area does contain landscape features (i.e. within 200m of waters) that may be associated with Aboriginal objects. Proceeding to Step 3 of the Due Diligence process is only required where the proposed activity is located on land with landscape features associated with Aboriginal object and on land that is not disturbed. The location of planned drilling within the activity area is considered to be disturbed land on the basis that it is that it has been subject to human activity that remains clear and observable, specifically clearing of vegetation for pastoral activities. Therefore, proceeding to Step 3 of the Due Diligence process is not required and the activity can proceed with caution without applying for an AHIP.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Affects areas where the landscape features indicate the likely presence of Aboriginal objects.		
Potential impacts	The activity area does contain landscape features (i.e. within 200m of waters) that may be associated with Aboriginal objects. Proceeding to Step 3 of the Due Diligence process is only required where the proposed activity is located on land with landscape features associated with Aboriginal object and on land that is not disturbed. The location of planned drilling within the activity area is considered to be disturbed land on the basis that it is that it has been subject to human activity that remains clear and observable, specifically clearing of vegetation for pastoral activities. Therefore, proceeding to Step 3 of the Due Diligence process is not required and the activity can proceed with caution without applying for an AHIP. AHIMS search dated 11/3/24 – nil Aboriginal sites or places identified in the proposed drilling area.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		

Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Affects areas subject to native title claims, indigenous land use agreements or joint management arrangements.		
Potential impacts	The activity area is not subject to any native title claims.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Impacts on Aboriginal communities or areas subject to land rights claims.		
Potential impacts	According to AHIMS, there are no Aboriginal objects and places within the activity area. AHIMS search dated 11/3/24 – nil Aboriginal sites or places identified in the proposed drilling area. From APO: The activity area is not subject to any native title claims. According to AHIMS, there are no Aboriginal objects and places within the activity area. The activity area does contain landscape features (i.e. within 200m of waters) that may be associated with Aboriginal objects. Proceeding to Step 3 of the Due Diligence process is only required where the proposed activity is located on land with landscape features associated with Aboriginal object and on land that is not disturbed. The location of planned drilling within the activity area is considered to be disturbed land on the basis that it is that it has been subject to human activity that remains clear and observable, specifically clearing of vegetation for pastoral activities. Therefore, proceeding to Step 3 of the Due Diligence process is not required and the activity can proceed with caution without applying for an AHIP.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	

Do the operations comply with standards, plans, policies?	Yes		
Criteria	Cultural Impacts: Impacts on areas or items of high anthropological, archaeological, architectural, cultural, heritage, historical, recreational or scientific value.		
Potential impacts	Ground disturbance is proposed but is temporary only. No trees will be removed as part of the activity. There are no known culturally modified trees recorded in the activity area. AHIMS search dated 11/3/24 – nil Aboriginal sites or places identified in the proposed drilling area. From APO: The activity area is not subject to any native title claims. According to AHIMS, there are no Aboriginal objects and places within the activity area. The activity area does contain landscape features (i.e. within 200m of waters) that may be associated with Aboriginal objects. Proceeding to Step 3 of the Due Diligence process is only required where the proposed activity is located on land with landscape features associated with Aboriginal object and on land that is not disturbed. The location of planned drilling within the activity area is considered to be disturbed land on the basis that it is that it has been subject to human activity that remains clear and observable, specifically clearing of vegetation for pastoral activities. Therefore, proceeding to Step 3 of the Due Diligence process is not required and the activity can proceed with caution without applying for an AHIP.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Implement unexpected finds protocol for any Aboriginal heritage items identified during the activity. > Haverford will implement all relevant procedures for managing potential Aboriginal heritage impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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?**	Medium
Can the impacts be reversed?	Yes	**Ranking of potential significance**	Low
Can the impacts be mitigated?	Uncertain	**Justification for ranking**	
Do the operations comply with standards, plans, policies?	Yes		
Criteria	Land Use Impacts: Any major changes in land use, including curtailment of other beneficial land uses.		
Potential impacts	The activity would not result in any long term change to the existing land use. Rehabilitation will return disturbed areas to their existing land use. The change to land use is temporary and limited to the vicinity of the exploration drilling.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management and Rehabilitation). > Comply with legislative requirement for landholder access arrangements and compensation to limit any potential impacts. > Rehabilitation to occur as soon as practicable after completion of activity. > Ongoing landholder consultation. > Haverford will implement all relevant procedures for managing potential land use impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Transportation Impacts: Substantial impacts on existing transportation systems (road, rail, pedestrian) which alter present patterns of circulation or movement.		
Potential impacts	Short term additional traffic during exploration activity. Impacts are not considered significant.		

Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Comply with legislative requirement for landholder access arrangements. > Ongoing landholder and community consultation. > Haverford will implement all relevant procedures for managing potential transport impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Transportation Impacts: Impacts associated with direct or indirect additional traffic.		
Potential impacts	Short term additional traffic during exploration activity. Impacts are not considered significant.		
Proposed management controls	> Comply with title conditions and relevant code of practice (Environmental Management). > Comply with legislative requirement for landholder access arrangements. > Ongoing landholder and community consultation. > Haverford will implement all relevant procedures for managing potential transport impacts or managing complaints.		
Duration	5		
Application ranking	Negligible		
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	Consistency with applicable local strategic planning statements, regional strategic plans or district strategic plans.		
Potential impacts	The relevant strategic plan is the Central West and Orana Regional Plan 2041, which includes the Lachlan Shire LGA. The activity is consistent with the plan on the basis of the following supportive statement included in the regional plan: "The NSW Government is committed to supporting the growth of the mining sector across the critical minerals supply chain, through investments in exploration, mining, processing, downstream industries, and circular economies".		
Proposed management controls	Not required.		
Duration	5		
Application ranking	Positive		
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	Matters of National Environmental Significance: Impacts on MNES under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999:		
Potential impacts	A MNES search with a 5km buffer identified: a) 9 migratory species or their habitat may occur, including one species (Fork-tailed Swift) and its habitat that is likely to occur b) 4 TEC that are Endangered or Critically Endangered that may or are likely to occur, including: - Weeping Myall Woodlands - Endangered - Poplar Box Grassy Woodland on Alluvial Plains - Endangered - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland - Critically Endangered - Grey Box (Eucalyptus microcarpa) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia - Endangered c) 31 Listed Threatened Species may or are likely to occur d) Activity area is within 400-800km of Ramsar Wetlands No significant adverse impact on any threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur as a result of the proposed activity where all management measures in the APO and this REF are implemented and rehabilitation is completed. On the same basis, matters of national environmental significance (MNES) are not likely to be impacted by the activity.		
Proposed management controls	Refer to mitigation measures for Vegetation and Threatened Species in this REF. **BioNet records did not include any listed vulnerable or endangered threatened species in the activity area. Vegetation clearing would be limited to groundcover only. No trees or shrubs would be removed. Topsoil will be returned to the disturbed area to promote the establishment of local species in the soil seedbank. No significant adverse impact on threatened species, threatened populations, threatened ecological communities, or their habitats is anticipated to occur where all management measures in this APO are implemented and rehabilitation is completed. On the same basis, MNES are not likely to be impacted by the activity.		
Duration	5		
Application ranking	Low Adverse		
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	Cumulative Impacts: Cumulative environmental effects with other existing or likely future activities.		
Potential impacts	There are no known or proposed major projects in the locality that the activity are likely to interact with in such a way that it would result in an adverse cumulative impact. Other exploration activities may be undertaken by Haverford concurrently, but will be done so in consultation with the landowner to ensure impacts to their farming operations and amenity are minimised.		
Proposed management controls	> Ongoing landholder and community consultation to ensure cumulative impacts are identified and managed. > Ongoing review of Major Projects in NSW to ensure cumulative impacts are identified and managed. > Consultation with Lachlan Shire Council if any potential local projects are having, or are likely to have, a cumulative impact with exploration activities. > Haverford will implement all relevant procedures for managing potential cumulative impacts or managing complaints.		
Duration	5		
Application ranking	Low Adverse		
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	

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