APO0001619

Approval to undertake assessable prospecting operations

Minore RC Drilling

2 April 2024

Application summary

Detail	Application
Reference	APO0001619
Date of approval	2 April 2024
Title	EL 9031 (1992)
Contact	[redacted]
Project name	Minore RC Drilling
Project location	Approximately 15km SW of Dubbo
Activity type	Non-complying exploration activity

Important note

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Project

Project details

Application APO0001619 relates to the proposed Minore RC Drilling at Approximately 15km SW of Dubbo.

The application proposes the following characteristics.

Detail	Proposal
Activity description	One 5.5" RC drill holes will be drilled to a depth of approximately 100m. This hole may be drilled deeper or shallower depending on the nature of the rocks intersected (e.g. up to 120m depth if required), and will require a 15m x 15m disturbance area (225 square metres). No vegetation clearing will be required. Weather dependent, the drilling program should be completed within two days of commencement. The drilling program is anticipated to be conducted during the period from 23 February 2024 to 30 April 2024 (weather dependent, and may extend to June 2024). The drilling program is scheduled to be conducted Monday to Sunday in daylight hours 6am-7pm. The drilling program will involve one RC rig and two light vehicles. Ancillary equipment may include an ATV and another light vehicle. RC hole will be plugged following drilling and backfilled once results are received from the laboratory. Follow up inspections after the drilling program will identify any issues or weed control required.
Earthworks or vegetation clearing	No vegetation clearing will be required. No earthworks to contruct new access tracks would be undertaken during the drilling program (temporary tracks may be created by driving across grasslands). Any spoil will be deposited back down the drill hole upon completion. RC hole will be plugged 1m below ground level, backfilled and the area returned to its original condition post drilling.
Access to exploration activities	Access to the drill sites would be via existing tracks and temporary tracks created by driving across grasslands. No earthworks will be required for the temporary tracks.
Ancillary activities	No ancillary activities are proposed.
Anticipated start date	23 February 2024

Detail	Proposal
Expected duration (weeks)	2 days
Expected rehabilitation completion date	30 June 2024
Proposed hours of operation	Other Monday to Sunday, 6am - 7pm
On-site employee or contractor numbers	7

Exempted areas

The Minore RC Drilling has not proposed prospecting in an exempted area.

State conservation areas

The Minore RC Drilling has not proposed prospecting in a State Conservation Area.

Site description and existing environment

The project comprises the following existing land uses:

Existing land use is characterised as native vegetation (mainly grasslands) used for stock grazing. The landuse is mapped as grazing, modified pasture.

The project is located near the following sensitive receptors:

The nearest sensitive receiver to the proposed RC drilling location is approximately 1.5km to the west. This sensitive receiver is a residence.

The project is located with the following soil types and properties:

The soil type at location Prop_3 is ferrosols, and has a land capability Class 3 (moderate limitations). No acid sulphate soil is present.

The project has the following existing surface water sources in the area that are likely to be affected by the activity:

The drilling location is approximately 45m from the nearest water course. The drill pad area will be located outside of waterfront land (i.e. more than 40m away) and will be moved if necessary to remain outside of waterfront land.

The project has the following existing groundwater sources that occur in the area that are likely to be affected by the activity:

The nearest recorded groundwater bore to location Prop_3 is GW001278, approximately 16km to the north east. This bore had a total depth of 25.6m, however no water was recorded and the casing was withdrawn. Prop_3 is within an area mapped as groundwater vulnerability. Groundwater may be intersected during the RC drilling program, and if intersected the below produced water procedure will be implemented as required: * Drilling operations will cease until temporary, above ground sumps, constructed from hay bales or transportable panels and a plastic liner, will be erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility. During RC drilling, the samples are expected to be wet if a zone of groundwater is intersected. Once this

has been drilled, the samples are expected to be dry again. If any RC holes intersect groundwater, they will be rehabilitaed in accordance with government guidelines.

The project is in an area with the following topography, vegetation cover type, density and condition:

Topography is considered to be gently undulating. Vegetation cover consists of native grasses and sparse mature Eucalypt trees at the drilling location. The drill site will be selected to avoid the need to clear any vegetation.

The project will impact the following matters of national environmental significance:

No matters of national environmental significance are likely to be affected by the drilling activity due to it's location and the short term nature of the activity. Please refer to the attached MNES report.

The project is in an area with the following threatened species, ecological communities (or habitats):

No threatened species or ecological communities are likely to be affected by the proposed drilling activity given it's location. Please refer to attachments.

The project is in an area with the following historic cultural or natural heritage items:

No heritage items (listed on the world heritage list, commonwealth heritage list, national heritage register, state heritage register or within the Dubbo LEP) are located near the proposed drilling areas.

The project is in an area with the following critical habitat/area of outstanding biodiversity value:

There are no areas of outstanding biodiversity value or crititical habitat within or near the proposed drilling areas.

The project is located in an area with the following location, type and distance to the nearest Aboriginal heritage sites:

An AHIMS search identified no registered sites within lot 134 DP 753257. The proposed drill site is located more than approximately 45m from a mapped watercourse (minor stream). The proposed drill site is not located within a sand dune system; on a ridge top, ridge line or headland; within 200m below or above a cliff face; or within 20m of a cave, rock shelter or cave mouth.

Exploration activities

The following exploration activities have been approved.

Drill holes

Id/ Regulator no.	Type	Surface disturbance (m^2)	Veg. Clearing (m^2)	Excavations (m^3)	Produced water (ml)	Depth (m)	Block number	Unit letters
MRRC_PROP_3 EDH0014161	RC drill hole	225				100	343	C

Other exploration activities

Id/ Regulator no.	Type	Surface disturbance (m^2)	Veg. Clearing (m^2)	Excavations (m^3)	Produced water (ml)	Block number	Unit letters

Impact management

The project includes the following measures to manage surface water impacts:

The RC drilling program will be located outside of waterfront land and will involve minimal disturbance, therefore no significant sedimentation or erosion impacts are expected. Notwithstanding, erosion and sediment control measures will be implemented, as required, in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1 (Landcom, 2004). It is expected that minimal water will be required for the RC drilling program.

The project includes the following measures to manage groundwater impacts:

Intersection of significant groundwater is not anticipated to occur during the proposed RC drilling program. In the event that groundwater is intersected, the following produced water procedure will be implemented as required: * Drilling operations will cease until temporary, above ground sumps, constructed from hay bales or transportable panels and a plastic liner, will be erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility.

The project includes the following measures to manage waste and excess materials:

All waste products generated by site personnel, including packaging materials, would be appropriately stored and/or removed from site at the end of each shift. In accordance with the Mandatory Requirement 5.1 of the Exploration Code of Practice: Environmental Management, drilling waste generated from the drilling program would be managed in a manner that does not, as far as practicable, cause harm to the environment. Following receipt of lab results, drill cuttings will be used to backfill the RC hole.

The project includes the following measures regarding the handling, use, storage and transportation of any chemicals and hydrocarbons:

Biodegradable drilling fluids would be used during the RC drilling program. No hazardous drilling chemicals or petroleum based circulation fluids or additives would be used, however some petroleum based lubricants may be used. Other chemicals used will include diesel fuel, oil and grease. These chemicals will be stored within a bunded area or on a spill pallet where required.

The project includes the following measures of how noise impacts will be managed to minimise impacts on nearby sensitive receptors:

SRL Ops will inform any nearby residents of potential noise emissions from the exploration site during the RC drilling program. The nearest sensitive receiver (residence) is approximately 1.5km from the proposed drilling location. Drilling will only be undertaken during daylight hours. SRL Ops will be in contact with all nearby residents during the drilling program to ensure noise is not a concern.

The project includes the following measures to manage air quality impacts:

SRL Ops will inform nearby residents of the potential dust emissions from the RC drilling program. The nearest sensitive receiver (residence) is approximately 1.5km from the proposed drilling location. SRL Ops will limit vehicle speeds to 40km/h on formed tracks and 20km/h on unformed tracks to reduce dust emissions, and monitor dust from the drilling program. Minimal dust is expected from the RC drill holes. No significant air quality impacts are expected to occur. No venting, flaring or re-use of gases will occur as part of the drilling program.

Sensitivity of the land to be disturbed

Question	Yes/no
Conservation areas	
Land reserved under the *National Parks and Wildlife Act 1974*?	No
Land acquired by the Minister under Part 11 of the *National Parks and Wildlife Act 1974*?	No
Land subject to a 'conservation agreement' under the *National Parks and Wildlife Act 1974* and/or *the Biodiversity Conservation Act 2016*?	No

Question	Yes/no
Land declared as an aquatic reserve under the *Marine Estate Management Act 2014*?	No
Land declared as a marine park under the *Marine Estate Management Act 2014*?	No
Land within State Forests set aside under the *Forestry Act 2012* for conservation values, including Flora Reserves or Special Management (and other) Zones?	No
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 other environmental protection purposes?	No
Land identified as wilderness or declared a wilderness area under the *Wilderness Act 1987*?	No
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*?	No
Land subject to a Wildlife Refuge agreement under the *Biodiversity Conservation Act 2016*?	No
Land subject to existing conservation agreements on private land under repealed legislation that continue to have effect (e.g., trust agreements under *Native Conservation Trust Act 2001*, Property vegetation plans under *Native Vegetation Act 2003*, Registered property agreements under *Native Vegetation Conservation Act 1997*)?	No
Drinking water catchment protection areas	
Land declared to be a 'controlled area' or a 'special area' under the *Water NSW Act 2014*?	No
Land declared to be a 'special area' under the *Water Management Act 2000* or *Hunter Water Act 1991*?	No
Sensitive areas	
Land declared as area of outstanding biodiversity value under the *Biodiversity Conservation Act 2016* or critical habitat under Part 7A of the *Fisheries Management Act 1994*?	No
Wetlands of international significance listed under the Ramsar Wetlands Convention?	No
Land designated as a nationally important wetland in the Directory of Important Wetlands?	No
Coastal wetlands mapped under *State Environmental Planning Policy (Resilience and Hazards) 2021*?	No
Littoral rainforests mapped under *State Environmental Planning Policy (Resilience and Hazards) 2021*?	No
Coastal zone as defined in the *Coastal Management Act 2016*?	No
Land identified in an environmental planning instrument as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management?	Yes
Waterfront land defined under the *Water Management Act 2000*?	No
Land with a slope greater than 18 degrees measured from the horizontal?	No
Land with potential for soil and water contamination	
Land mapped as Actual Acid Sulfate Soils (AASS) or Potential Acid Sulfate Soils (PASS) on the Acid Sulfate Soils Risk Maps for NSW?	No
Aboriginal protection areas	
Land identified in an environmental planning instrument (such as a State Environmental Planning Policy or Local Environment Plan) as being of Aboriginal cultural significance?	No
Land declared as an Aboriginal place under the *National Parks and Wildlife Act 1974*?	No
Historic or natural heritage protection areas	
Land listed on the World Heritage List, National Heritage List or Commonwealth Heritage List?	No
Land, places, buildings or structures listed on the NSW State Heritage Register?	No
Land identified in an environmental planning instrument (such as a State Environmental Planning Policy or Local Environment Plan) as being of heritage significance or a heritage conservation area?	No

Question	Yes/no
Critical industry clusters	
Land identified as Critical Industry Cluster under *State Environmental Planning Policy (Resources and Energy) 2021*?	No
Community land	
Public land classified as community land under the *Local Government Act 1993*?	No
Other areas	
Land identified on the authority (e.g., exploration licence or assessment lease) as environmentally sensitive land?	No
Ecology	
Will the activity have a significant effect on threatened species or their habitats?	No
Will the activity have a significant effect on threatened ecological communities or their habitats?	No
Will vegetation be removed as part of access track upgrade works in waterfront land?	No
Aboriginal and European heritage	
Will the activity harm Aboriginal objects as defined under the *National Parks and Wildlife Act 1974*?	No
Will the activity damage any listed heritage items?	No

Attachment 1 – Statement of commitments

Item	Commitment
Activity type	Exploration activity comprising: • 0 diamond drill holes • 1 reverse circulation drill holes • 0 other drill holes • 0 cubic metres of bulk sampling • 0 square metres of new access tracks • 0 lines of seismic testing • 0 square metres of air core drilling • 0 square metres of other drilling
Activity location	Approximately 15km SW of Dubbo, within EL 9031 (1992).
Activity scope (including any ancillary activities)	One 5.5" RC drill holes will be drilled to a depth of approximately 100m. This hole may be drilled deeper or shallower depending on the nature of the rocks intersected (e.g. up to 120m depth if required), and will require a 15m x 15m disturbance area (225 square metres). No vegetation clearing will be required. Weather dependent, the drilling program should be completed within two days of commencement. The drilling program is anticipated to be conducted during the period from 23 February 2024 to 30 April 2024 (weather dependent, and may extend to June 2024). The drilling program is scheduled to be conducted Monday to Sunday in daylight hours 6am-7pm. The drilling program will involve one RC rig and two light vehicles. Ancillary equipment may include an ATV and another light vehicle. RC hole will be plugged following drilling and backfilled once results are received from the laboratory. Follow up inspections after the drilling program will identify any issues or weed control required. No ancillary activities are proposed.
Hours of operation	Other Monday to Sunday, 6am - 7pm
Expected duration (weeks)	2 days
Anticipated start date	23 February 2024
Expected rehabilitation completion date	Estimated 30 June 2024
Maximum area of disturbance	225 square metres
Agricultural impact	The activity will be undertaken in accordance with AIS_Minore_EL9031_NonCEA.pdf (204266 bytes)
Air quality	SRL Ops will inform nearby residents of the potential dust emissions from the RC drilling program. The nearest sensitive receiver (residence) is approximately 1.5km from the proposed drilling location. SRL Ops will limit vehicle speeds to 40km/h on formed tracks and 20km/h on unformed tracks to reduce dust emissions, and monitor dust from the drilling program. Minimal dust is expected from the RC drill holes. No significant air quality impacts are expected to occur. No venting, flaring or re-use of gases will occur as part of the drilling program.
Protection of water sources	The RC drilling program will be located outside of waterfront land and will involve minimal disturbance, therefore no significant sedimentation or erosion impacts are expected. Notwithstanding, erosion and sediment control measures will be implemented, as required, in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1

Item	Commitment
	(Landcom, 2004). It is expected that minimal water will be required for the RC drilling program. Intersection of significant groundwater is not anticipated to occur during the proposed RC drilling program. In the event that groundwater is intersected, the following produced water procedure will be implemented as required: * Drilling operations will cease until temporary, above ground sumps, constructed from hay bales or transportable panels and a plastic liner, will be erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility.
Soil and land stability	Maximum surface disturbance from the RC drill pad is estimated at 225 sqm. No clearing of vegetation or grasses will be required. Mitigation measures for soill/stability impacts is therefore not expected to be required.
Noise and vibration	SRL Ops will inform any nearby residents of potential noise emissions from the exploration site during the RC drilling program. The nearest sensitive receiver (residence) is approximately 1.5km from the proposed drilling location. Drilling will only be undertaken during daylight hours. SRL Ops will be in contact with all nearby residents during the drilling program to ensure noise is not a concern.
Coastal processes and hazards	Nil, not required.
Hazardous substances or chemicals	Biodegradable drilling fluids would be used during the RC drilling program. No hazardous drilling chemicals or petroleum based circulation fluids or additives would be used, however some petroleum based lubricants may be used. Other chemicals used will include diesel fuel, oil and grease. These chemicals will be stored within a bunded area or on a spill pallet where required.
Wastes and emissions	All waste products generated by site personnel, including packaging materials, would be appropriately stored and/or removed from site at the end of each shift. In accordance with the Mandatory Requirement 5.1 of the Exploration Code of Practice: Environmental Management, drilling waste generated from the drilling program would be managed in a manner that does not, as far as practicable, cause harm to the environment. Following receipt of lab results, drill cuttings will be used to backfill the RC hole.
Vegetation	If required, the proposed RC drill hole will be moved slightly to avoid the need to clear native vegetation.
Threatened fauna and flora species	In the unlikely event that threatened species are encountered and suspected to be impacted during the drilling activity, an ecologist will be engaged to assess impacts and identify management and mitigation measures.
Areas of outstanding biodiversity value/critical habitat	
Endangered ecological community or critically endangered ecological community	Not applicable.
Habitat of a threatened species or ecological community	Not applicable.
Key threatening processes	Not applicable.

Item	Commitment
Barriers to movement of fauna	Not applicable.
Ecological and biosecurity impacts	Equipment will be washed down and inspected prior to arriving onsie to minimise any biosecurity risk. No vegetation is to be cleared, and the drilling program will use existing tracks or drive across fallow or cleared paddocks to access the drill site.
Community resources	Not applicable.
Natural resources	Groundwater may be intersected during the RC drilling activity and if intersected the below produced water procedure will be implemented as required: * Drilling operations will cease until temporary, above ground sumps, constructed from hay bales and a plastic liner is erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility.
Social impacts	Not applicable.
Economic impacts	Not applicable.
Heritage impacts	Not applicable.
Aesthetic impacts	Not applicable.
Aboriginal cultural heritage	If a suspected object of cultural significance is encountered, work would cease and an archaeologist contracted to follow the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.
Land use impacts	Not applicable.
Transportation impacts	Not applicable.
Matters of national environmental significance	Not applicable.
Cumulative impacts	Not applicable.
Rehabilitation commitments	The activity will be undertaken in accordance with the rehabilitation objectives and targets provided for this project.
Risk assessments	The titleholder must monitor the risks associated with activities and, if the risk associated with an activity changes, implement revised environmental management controls.
Incident management	The NSW Resources Regulator will be notified of all incidents in accordance with the requirements of EL 9031 (1992).
Reporting	Reporting to the NSW Resources Regulator and Mining, Exploration and Geoscience – Department of Regional NSW will be in accordance with the legislation and conditions of EL 9031 (1992).
Codes of Practice	Minore RC Drilling will be operated in accordance with: • Exploration Code of Practice: Environmental Management Exploration Code of Practice: Rehabilitation Exploration Code of Practice: Produced Water Management, Storage and Transfer
Other (as applicable)	1. No additional terms specified.

Attachment 2 – Definitions

To search for NSW legislation, visit www.legislation.nsw.gov.au. Commonwealth legislation can be found at www.legislation.gov.au.

Word	Definition
Aboriginal object	Has the same meaning as it has in the *National Parks and Wildlife Act 1974.*
Aboriginal place	Has the same meaning as it has in the *National Parks and Wildlife Act 1974.*
Acid Sulfate Soils	Sediments and soils containing iron sulfides which, when exposed to oxygen, generate sulfuric acid. Acid sulfate soils include actual acid sulfate soils (AASS) or potential acid sulfate soils (PASS).
Activity	Any activity carried out in connection with exploration, including: • the use of land • means of accessing land • the carrying out of a work.
Activity approval	An approval to carry out assessable prospecting operations granted under the *Mining Act 1992* / *Petroleum (Onshore) Act 1991* – as relevant.
Actual Acid Sulfate Soils (AASS)	Sediments and soils containing highly acidic soil horizons or layers resulting from the aeration of sediments and soils that are rich in iron sulfides, primarily sulphide.
Applicant	In relation to an exploration activity, the person proposing to carry out the exploration activity.
Aquatic reserve	Has the same meaning as it has in the *Marine Estate Management Act 2014.*
Areas of Outstanding Biodiversity Value (AOBVs)	Has the same meaning as it has in the *Biodiversity Conservation Act 2016*. Note: Areas of declared critical habitat under the now repealed *Threatened Species Conservation Act 1995* have become Areas of Outstanding Biodiversity Value (AOBVs) under the *Biodiversity Conservation Act 2016*.
Assessable prospecting operation	Any prospecting operation that is not exempt development within the meaning of *State Environmental Planning Policy (Resources and Energy) 2021.*
Clearing of vegetation	Any one or more of the following: • cutting down, felling, thinning, lopping, logging or removing vegetation, or • killing, destroying, poisoning, ringbarking, uprooting or burning vegetation.
Complying exploration activities (CEA)	Exploration activities that are considered unlikely to significantly affect the environment as set out in *Exploration guideline: Application and assessment process for exploration activities*.
Critical habitat	Has the same meaning as it has in the *Fisheries Management Act 1994*. Areas of declared critical habitat under the now repealed *Threatened Species Conservation Act 1995* have become Areas of Outstanding Biodiversity Value (AOBVs) under the *Biodiversity Conservation Act 2016.*
Drill hole	A hole made by drilling or boring, but excludes: • sampling and coring using handheld equipment, • petroleum wells.
Drilling	The perforation of the earth's surface crust by mechanical means to form a hole, whether the hole caused by the perforation is vertical, inclined or horizontal, and includes all operations for preventing collapse of the sides of

Word	Definition
	such hole or for preventing it from being filled with extraneous materials including water
Environment	Has the same meaning as it has in the *Mining Act 1992 / Petroleum (Onshore) Act 1991* – as relevant.
Environmentally sensitive area of State significance	Has the same meaning as it has in *State Environmental Planning Policy (Resources and Energy) 2021.*
Excavation	The removal of the surface layer to a depth greater than 500 mm from the natural surface level.
Exempt development	Has the same meaning as it has in *State Environmental Planning Policy (Resources and Energy) 2021*.
Exploration	Has the same meaning as it has in *State Environmental Planning Policy (Resources and Energy) 2021*.
Fauna	Has the same meaning as it has in the *National Parks and Wildlife Act 1974*.
Groundwater	Water that occurs beneath the ground surface in the saturated zone.
Habitat	Has the same meaning as it has in *the Biodiversity Conservation Act 2016* or the *Fisheries Management Act 1994* (as relevant).
Harm	In relation to matters of national environmental significance, has the same meaning as 'significant impact' as provided by the 'Significant Impact Guidelines' used to determine whether assessment and approval is required under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. In relation to the environment, has the same meaning as it has in the *Protection of the Environment Operations Act 1997*. In relation to threatened species or ecological communities, has the same meaning as: • 'harm an animal' in the *National Parks and Wildlife Act 1974* • 'pick a native plant' in the *National Parks and Wildlife Act 1974* • 'harm' in the *Fisheries Management Act 1994*. In relation to an aquifer or waterfront land, has the same meaning as it has in the *Water Management Act 2000*. In relation to Aboriginal places or Aboriginal objects has the same meaning as it has in the *National Parks and Wildlife Act 1974*. In relation to items of heritage significance, has the same meaning as it has in the *Heritage Act 1977*. In relation to protected marine vegetation, has the same meaning as it has in the *Fisheries Management Act 1994*.
Items of heritage significance	Means: • any heritage items listed in one or more of the following: — the Commonwealth Heritage List — the World Heritage List — the National Heritage List — the State Heritage Register — an Environmental Planning Instrument • any relic (being any deposit, object or material evidence which relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and which is 50 or more years old), or

Word	Definition
	• within State Conservation Areas: — items that are listed on the DECC Historic Heritage Information Management System, or — any deposit, object or material evidence relating to the settlement or occupation of New South Wales or a part of New South Wales (not being Aboriginal settlement or occupation) if the deposit, object or material evidence is more than 25 years old at the date of the interference or removal.
Land	Includes: • the sea or an arm of the sea • a bay, inlet, lagoon, lake or body of water, whether inland or not and whether tidal or non-tidal • a river, stream or watercourse, whether tidal or non-tidal, and • a building erected on the land
Marine vegetation	Has the same meaning as it has in the *Fisheries Management Act 1994*.
Matters of national environmental significance	'Matters of national environmental significance' protected under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*.
Minister	The Minister administering the *Mining Act 1992 / Petroleum (Onshore) Act 1991* – as relevant.
Native vegetation	Has the same meaning as it has in the *Local Land Services Act 2013*.
Potential acid sulphate soils (PASS)	Sediments and soils that contain iron sulfides or sulfidic material which have not been exposed to air and oxidised
Produced water	Any form of groundwater that is actively extracted from a borehole or excavation, excluding incidental groundwater mixed with drilling fluids.
Rehabilitation	Has the same meaning as it has in the *Mining Act 1992 / Petroleum (Onshore) Act 1991* – as relevant.
Seismic survey	The use of shock waves (generated in the ground using either small explosive charges detonated below the surface, hand-held mechanical hammers or vehicle-mounted hammers) and an array of geophones, which are connected to measuring instruments, to differentiate the geophysical properties of the subsurface of the earth.
Sensitive receiver	Includes: • dwellings • libraries • educational and research institutions (including schools, colleges and universities) • childcare centres • kindergartens • hospitals, surgeries and other medical institutions • places of worship • milking sheds and holding yards associated with dairies • animal boarding or training establishments • aquaculture

Word	Definition
	• intensive livestock agriculture
Site	The land on which an activity is located.
State Conservation Area	Has the same meaning as it has in the *National Parks and Wildlife Act 1974.*
Surface disturbance	Means: • disturbance or exposure of the soil or surface rock layer, or • degradation or deterioration in any manner of the physical surface of land.
Terms	In relation to activity approvals, the terms imposed by the decision-maker on the grant of an activity approval.
Threatened species or ecological communities	Has the same meaning as it has in the *Biodiversity Conservation Act 2016* or *Fisheries Management Act 1994* (as relevant).
Title	An authority under the *Mining Act 1992* / a title under the *Petroleum (Onshore) Act 1991* – as relevant.
Titleholder	A person or company to whom a title has been issued.
Track	All unsealed routes that will be traversed multiple times, but does not include single pass (ingress and egress) routes or seismic shot and receiver lines.
Waste	Has the same meaning as it has in the *Protection of the Environment Operations Act 1997.*
Water source	Has the same meaning as it has in the *Water Management Act 2000.*
Water land	Has the same meaning as it has in the *Fisheries Management Act 1994.*
Waterfront land	Has the same meaning as it has in the *Water Management Act 2000.*
Wetlands	Has the same meaning as it has in the *Fisheries Management Act 1994*.
Wilderness	Lands identified as wilderness under the *Wilderness Act 1987.*
Wilderness area	Lands (including subterranean lands) declared to be a wilderness area under the *Wilderness Act 1987* or the *National Parks and Wildlife Act 1974.*

Attachment 3 – Review of environmental factors

Air impacts
Provide a brief description of likely impacts to air quality, including the distance to, and impacts on, nearby sensitive receivers.
Dust emissions from drilling operations and vehicle movements on unsealed surfaces have the potential to impact sensitive receivers near the drill site. No venting, flaring or re-use of gases will occur as part of the drilling program. The nearest sensitive receiver to the drilling area is approximately 1.5km away (to the west).
What is the activity's likely impact due to generation of greenhouse gases emissions or release of chemicals which affect the ozone layer or produce photo-chemical smog?
Negligible
What is the likely level of any impacts?
Negligible
Outline any proposed management controls and/or mitigation measures.
SRL Ops will inform nearby residents of the potential dust emissions from the RC drilling, and implement the following management measures, as required, to minimise the potential for air quality impacts to occur: * visually monitor dust from the drilling program *limit vehicle speeds to 40km/hr on formed tracks and 20km/hr on unformed tracks. The RC hole will be capped and rehabilitated once results are received from the laboratory.

Water impacts
Provide a brief description of the likely impacts to water quality and/quantity.
The RC drilling location will be located outside of waterfront land and will involve minimal disturbance, therefore no significant sedimentation or erosion impacts are expected. Intersection of groundwater may occur during RC drilling at this location. In the event that groundwater is intersected, the following produced water procedure will be implemented as required: *Drilling operations will cease until temporary, above ground sumps, constructed from hay bales and a plastic liner are erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility. The closest groundwater bore to the proposed drill site is approximately 1.6km to the north east. However no water was recorded and the casing was withdrawn (GW001278). The produced water procedure will be implemented if significant groundwater is intersected.
What is the activity's impact due to the storage of water?
Negligible
What is the activity's impact to natural water bodies, wetlands or runoff patterns?
Negligible
What is the activity's impact due to aquifer interference, including changes to inter-aquifer connectivity?

Water impacts
Negligible
What is the activity's impact due to changes to flooding or tidal regimes?
Nil/Not applicable
What are the impacts from any hydraulic fracturing (well stimulation), including through gas and fluid migration?
Nil/Not applicable
What is the activity's impact due to changes in surface or groundwater quality and quantity?
Negligible
What is the likely level of any water impacts?
Negligible
Outline any proposed management controls and/or mitigation measures.
Erosion and sediment control measures will be implemented, as required, in accordance with the series Managing Urban Stormwater: Soils and Construction including Volume 1 (Landcom, 2004). Intersection of significant groundwater is not anticipated, however in the event that groundwater is intersected, the following produced water procedure will be implemented as required: *Drilling operations will cease until temporary, above ground sumps, constructed from hay bales and a plastic liner are erected. * Produced water will be collected and suspended sediment allowed to settle. * The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines. * If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility. If the RC hole intersects groundwater, it will be rehabilitated in accordance with government guidelines.

Soil and stability impacts
Provide a brief description of the likely impacts to soil quality or land stability.
No impacts to soil quality or land stability are expected as a result of the RC drill hole.
What is the activity's impact on the degradation of soil quality including contamination, salinisation or acidification?
Nil/Not applicable
What is the activity's impact on land with high agricultural capability?
Nil/Not applicable
What is the activity's impact due to loss of soil from wind or water erosion?
Negligible
What is the activity's impact due to the loss of structural integrity of the soil?
Nil/Not applicable
What is the activity's impact due to increased land instability with high risks from landslides or subsidence?
Nil/Not applicable
What is the activity's impact due to any induced seismicity or ground movements associated with fracture stimulation or injection or extraction of groundwater?
Nil/Not applicable
What is the likely level of any impacts?
Nil/Not applicable

Soil and stability impacts

Outline any proposed management controls and/or mitigation measures.

Maximum surface disturbance from the RC drill pad is estimated at 225 sqm. No clearing of vegetation or grasses will be required.

Mitigation measures for soill/stability impacts is therefore not expected to be required.

Noise and vibration impacts

Provide a brief description of the likely noise and/or vibration impacts.

The RC drilling should not generate noise that is likely to affect sensitive receivers. The one drill hole will be completed in half a day.

The closest nearby sensitive receiver is located approximately 1.5km to the west, and are unlikely to hear noise from the RC drill. No vibration impacts are expected to occur.

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

SRL Ops will inform any nearby residents of potential noise emissions from the exploration site during the RC drilling, and will implement the following management measures, as required, to minimise the potential for noise impacts to occur:

* modify the hours and/or days of operation.

Coastal locations and processes

Provide a brief description of likely impacts on coastal environments, coastal processes and coastal hazards.

The exploration site is not located within a coastal environment. No impacts are therefore expected.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Nil, not required.

Hazardous substances and chemicals

Provide a brief description of likely impacts associated with the use, generation, storage or transport of hazardous substances or chemicals.

Biodegradable drilling fluids will be used during the RC drilling. Other chemicals used will include diesel fuel, oil and grease.

Minimal impacts are expected to occur from the RC drilling, given the small number of drill holes (one).

What is the likely level of the impact associated with the use, generation, storage or transport of hazardous substances or chemicals?

Negligible

Outline any proposed management controls and/or mitigation measures.

Chemicals will be stored within a bunded area or on a spill pallet where required and not located within waterfront land.

Wastes and emissions

Provide a brief description of likely impacts to the environment from the generation or disposal of gaseous, liquid or solid wastes or emissions.

All waste products generated by site personnel, including packaging materials, would be appropriately stored and/or removed from site at the end of each shift.

In accordance with the Mandatory Requirement 5.1 of the Exploration Code of Practice: Environmental Management, drilling waste generated from the drilling would be managed in a manner that does not, as far as practicable, cause harm to the environment.

Cuttings from the RC hole will be used to backfill the drill hole once results from the laboratory are received.

Provide a brief description of likely impacts on areas sensitive to this type of impact.

The drill site will be located outside of waterfront land. The area is gently undulating, however minimal erosion is expected. Drilling will take place during the warmer months where rainfall is typically low.

What is the likely level of the impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Wastes generated from the drilling program will be removed daily, with drill cuttings used to rehabilitate the drill hole. Excess drill cuttings will be disposed of at an appropriately licenced facility.

Vegetation

Provide a brief description of any vegetation clearing or modification and the likely impacts to the environment.

The drill site is located within an area of sparse native vegetation - eucalyptus trees and native grasses used for grazing. The drill site will be sited in an area where no vegetation clearing will be required.

What is the likely level of the impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

If required, the proposed RC drill hole will be moved slightly to avoid the need to clear native vegetation.

Threatened species

Provide a brief description of any likely impacts to threatened fauna and flora species.

The drill site is within an area with sparse eucalyptus trees adjacent to a cleared paddock. No vegetation clearing will be undertaken. Negligible impacts to threated fauna or flora is expected due to the short term nature of the drilling (drill hole will be completed within one day).

What is the likely level of the impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

In the unlikely event that threatened species are encountered and suspected to be impacted during the drilling activity, an ecologist will be engaged to assess impacts and identify management and mitigation measures.

Area of outstanding biodiversity value (AOBV) / Critical habitat

Provide a brief description of any likely impacts to AOBV/critical habitat.

No areas of AOBV or critical habitat were identified during undertaking the required searches.

What is the likely level of the impacts?

Area of outstanding biodiversity value (AOBV) / Critical habitat
Outline any proposed management controls and/or mitigation measures.

Endangered ecological community or critically endangered ecological community
Is the activity likely to have an adverse effect on an endangered ecological community or critically endangered ecological community? Select as relevant:
N/A
Provide a brief description of any impacts.
No endangered ecological community or critically endangered ecological community was identified in proximity to the proposed drilling area.
What is the likely level of the impacts?
Nil/Not applicable
Outline any proposed management controls and/or mitigation measures.
Not applicable.

Habitat of a threatened species or ecological community
Is the activity likely to have an adverse effect on the habitat of a threatened species or ecological community (including protected aquatic species)? Select as relevant:
N/A
Describe the impacts.
The drill site is near a cleared paddock with no vegetation clearing proposed. Therefore, the habitat of a threatened species or ecological community is not expected to be impacted by the proposed drilling. The drilling would be completed within a day.
What is the likely level of the impacts?
Nil/Not applicable
Outline any proposed management controls and/or mitigation measures.
Not applicable.

Key threatening process
Provide a brief description of whether the activity will constitute, or form part of, a key threatening process - or is likely to increase the impact of a key threatening process.
None of the four listed key threatening processes will be undertakn as a result of the drilling activity.
What is the likely level of any impacts?
Nil/Not applicable
Outline any proposed management controls and/or mitigation measures.
Not applicable.

Barriers to movement of fauna
Provide a brief description regarding the potential of the activity to endanger, displace or disturb fauna or create a barrier to their movement.

Barriers to movement of fauna

No vegetaion clearing is proposed as a part of the drilling activity. The drilling will be completed within one day, therefore it is unlikely to endanger, displace or disturb fauna or create a barrier to their movement.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Ecological and biosecurity impacts

Is the activity likely to have any adverse ecological or biosecurity impacts? Select as relevant:

N/A

Provide a brief description of any impacts.

The drilling activity is not likely to have any adverse ecological or biosecurity impacts.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Equipment will be washed down and inspected prior to arriving onsie to minimise any biosecurity risk.

No vegetation is to be cleared, and the drilling program will use existing tracks or drive across fallow or cleared paddocks to access the drill site.

Community resources

Describe whether the activity is likely to degrade or significantly increase the demand for services and infrastructure resources.

The drilling activity is not likely to degrade or significantly increase the demand for services and infrastructure. This drilling activity is expected to be completed within one day, but will be drilled in conjunction with APO0001618 and APO0001620. The entire drilling program is expected to be completed within 2-3 weeks of commencment with seven contractors/staff involved, many of which already reside in the local community.

Describe whether the activity is likely to result in any diversion of resources to the detriment of other communities or natural systems.

No diversion of resources is expected for this short duration drilling program.

What is the likely level of the impact?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Natural resources

Describe any likely impacts that would disrupt, deplete or destroy natural resources.

The drilling activity may intersect groundwater. This drill location is located within an area mapped as groundwater vulnerability. The RC drilling is unlikely to deplete the groundwater table given the single drill hole, short term nature and small volume of groundwater possible to be intersected.

Describe whether the activity is likely to disrupt existing activities which rely upon natural resources, including forestry, farming or extractive industries (or will reduce options for future activities).

Natural resources

The RC drilling activity is unlikely to disrupt existing activities that rely on groundwater in the area, given the short term nature and small volume of groundwater possible to be intersected.

Describe whether the activity is likely to result in the degradation of any area reserved for conservation purposes.

The RC drilling activity is not likely to result in the degradation of any area reserved for conservation purposes.

What is the likely level of the impact?

Negligible

Outline any proposed management controls and/or mitigation measures.

Groundwater may be intersected during the RC drilling activity and if intersected the below produced water procedure will be implemented as required:

* Drilling operations will cease until temporary, above ground sumps, constructed from hay bales and a plastic liner is erected.
* Produced water will be collected and suspended sediment allowed to settle.
* The water will be tested, and if of suitable quality, discharged to land adjacent to the drill site. No produced water will be permitted to flow to surface water drainage lines.
* If the produced water is not of a suitable quality to be discharged, it will be collected by a suitably licensed waste water contractor and transported to a disposal facility.

Social impacts

Describe whether the activity is likely to result in a change to the demographic structure of the community, including changes to the workforce or industry structure of the area/region.

No social impacts are expected from the drilling activity. A total of seven staff/contractors are proposed to be involved in the drilling activity. The drilling activity will be completed within one day.

Describe whether the activity is likely to have an environmental impact that may cause substantial change or disruption to the community, including loss of facilities, reduced links to other communities or loss of community identity.

The drilling activity will not cause an environmental impact resulting in a substantial change to the community.

Describe whether the activity is likely to result in some individuals or communities being significantly disadvantaged, including a change in the level of demand for community resources (e.g. community facilities / services, and labour force).

No change to demand for community resources will result from the drilling activity.

Describe whether the activity 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, etc.

The drilling activity will not result in impacts to the health, safety privacy or welfare of individuals or communities.

Describe if the activity is likely to have any 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.

The drilling activity will not have an effect on any item of social significance or other special value.

What is the likely level of any social impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Economic impacts

Provide a brief description of any likely economic impacts.

Economic impacts

Economic impacts are not expected from the drilling activity given the short term nature (one day) and minimal staff involved.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Heritage impacts

Describe whether the activity is likely to cause impacts on localities, places, landscapes, buildings or archaeological relics of heritage significance.

No items of historic cultural or natural heritage were identified within the proposed drilling activity area. Please refer to attached searches.

What is the likely level of the impact?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Aesthetic impacts

Describe whether the activity is likely to cause impacts on the visual or scenic landscape, including any lighting, venting or flaring of gas.

No visual or aesthetic impacts are likely as a result of the drilling activity, given the short term nature of the activity (one day). The drilling will be undertaken during the daytime only and there will be no venting or flaring of gas.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Cultural impacts

Describe the likely impacts associated with any disturbance of the ground surface or any culturally modified trees.

No trees are located within the proposed drill pad area, and disturbance of the ground will be limited to the pad area (225 sqm) of the RC hole.

No cultural impacts are expected as a result of the drilling activity.

Describe whether the activity will affect known Aboriginal objects or Aboriginal places.

AHIMS search indicates no objects or places of Aboriginal cultural heritage are located within this lot/DP (134/753257).

Describe whether the activity is located in areas where landscape features indicate the presence of Aboriginal objects.

The proposed activity is not:

* located within a sand dune system

Cultural impacts

* located on a ridge top, ridge line or headland
* located within 200m below or above a cliff face
* within 20m of a cave, rock shelter, or a cave mouth.

The proposed drilling activity is within 200m of a surface water line, however the creekline is ephemeral and currently dry. The drill hole will be located outside of waterfront land (i.e. more than 40m from the dry creekline).

Describe whether the activity will affect areas where native title exists or land subject to native title claims, indigenous land use agreements or joint management agreements.

The drilling area is on freehold land, and therefore Native Title is extinguished.

What is the likely level of any cultural impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

If a suspected object of cultural significance is encountered, work would cease and an archaeologist contracted to follow the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales.

Land use impacts

Provide a brief description of any impacts on land use including any major changes to land use and/or curtailment of other beneficial land uses.

The drilling activity will be undertaken in a clear area next to a cleared paddock. No change of land use will occur as a result of the drilling activity.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Transportation impacts

Provide a brief description of any significant impacts on transportation.

No significant impacts on transportation are expected as a result of the drilling activity.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Consistency with applicable local strategic planning statements, regional strategic plans or district strategic plans

Provide a brief description of any relevant local strategic planning statements, regional strategic plans or district strategic plans and whether the proposed activity is consistent with these.

The land where the drilling activity is proposed is subject to the Dubbo Local Strategic Planning Statement and the Central West and Orana Regional Plan. The drilling activity is consistent with these planning documents.

What is the likely level of any impacts?

Nil/Not applicable

Consistency with applicable local strategic planning statements, regional strategic plans or district strategic plans

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Matters of national environmental significance

Is the activity likely to impact on any of the following matters of national environmental significance under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*? Select as relevant:

N/A

Provide further details relating to any impacts on matters of national environmental significance.

What is the likely level of any impacts?

Nil/Not applicable

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Cumulative impacts

Is the activity likely to result in cumulative environmental effects with other existing or likely future activities?

No

Describe the impact.

The environmental impacts of the proposed drilling activity (one drill hole) are considered to be negligible given the short term nature of the activity. It is unlikely to result in cumulative environmental effects with other existing or future activities.

Sixteen RC drill holes are proposed within APO0001618, located approximately 4.5km to the SW but is unlikely to result in cumulative impacts.

What is the likely level of any impacts?

Negligible

Outline any proposed management controls and/or mitigation measures.

Not applicable.

Environmental assessment conclusions

Having regard to the potential significance of the individual impacts of the proposed activity (as well as the aggregation of all the impacts of the activity) determine whether (select as relevant):

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.

Provide any further details as relevant.

No further information.

Attachment 4 – List of supporting documents

- AHIMS Search 134_753257.pdf
  - AIS_Minore_EL9031_NonCEA.pdf
  - APO0001619_Submission Report_18_Feb_2024 10 48am.pdf
  - APO0001619_Submission Report_18_Feb_2024 1048am.pdf
  - Atlas_records_20231212-073735.zip
  - EL 9031 Minore RC Rehabilitation Objectives and Completion Criteria 19 January 2024.pdf
  - FW EL 9031 (1992) _ Minore RC Drilling _ APO Application _ APO0001619.eml
  - J00301_Minore_Fig7abc_Rev02_A3P.pdf
  - Key Fish Habitat.pdf
  - Minore RC pre photos.zip
  - Protected Matters - MNES layers - December 12th 2023.pdf
  - Protected Matters - MNES layers - December 12th 2023_2.pdf