

APO0001773

Approval to undertake assessable prospecting operations

Achilles

7 June 2024

Application summary

Detail	Application
Reference	APO0001773
Date of approval	7 June 2024
Title	EL 8968 (1992)
Contact	[REDACTED]
Project name	Achilles
Project location	25km NW from Lake Cargelligo
Activity type	Complying exploration activity

Important note

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Project

Project details

Assessable prospecting activity APO0001773 relates to the Achilles at 25km NW from Lake Cargelligo.

The project has the following approved characteristics.

Detail	Proposal
Activity description	AGC proposes to undertake a drilling program of up to 30 RC/DD holes, to a planned depth of around 100-250m per hole. A UDR1000 multipurpose track-mounted rig or similar will be used for RC and DD holes, and supporting trucks and light vehicles will be used onsite. The drilling is located on flat rocky, relatively low productivity land, which is open with patches of shrubs and trees. The land is partly cleared and disturbed by agriculture. Existing farm tracks and open but un-cropped paddocks will be used for access, however some regrowth and shrubs may need to be disturbed to provide safe access for vehicles. Trees will not need to be bulldozed, however some shrubs may need to be cleared for pad access, possibly by the landowner's bobcat or similar. PVC collars will be required and hand shovels/digging tools used to excavate turkeys nests to control water. Rehab will likely consist of tipping cuttings back down the hole, cutting PVC collars and plugging holes and backfilling the holes with the material dug from the holes or the top bag. Wheel ruts and other surface disturbance will be levelled by bobcat. Excess cuttings will be trucked to an EPA-approved disposal facility.
Earthworks or vegetation clearing	The planned drilling locations are not expected to require drill pad earthworks, and only minor vegetation/shrub clearing is expected to be required, hence only a small clearing disturbance is proposed.
Access to exploration activities	Pre-existing tracks can be used for access, or can be driven to through open scrub.

Detail	Proposal
Ancillary activities	Ancillary infrastructure or temporary accommodation are not expected to be required at this site. Water storage may be needed for diamond drilling, and will be held in tanks on a support truck or a trailer.
Anticipated start date	1 June 2024
Expected duration (weeks)	Approximately 6 weeks
Expected rehabilitation completion date	9 April 2029
Proposed hours of operation	Other 7 days per week, 12 hours per day RC drilling, 24 hours possible for Diamond drilling
On-site employee or contractor numbers	6

Exempted areas

The Achilles has not proposed prospecting in an exempted area.

State conservation areas

The Achilles has not proposed prospecting in a State Conservation Area.

Site description and existing environment

The project comprises the following existing land uses:

The planned drilling will take place on a farm, where cropping and grazing are both practiced. The planned drill sites will not affect cropping areas. Where grazing animals are fenced within the area where drilling occurs, there will be no impact on the animals as they will be able to move to other parts of the paddock for feeding. All drilling muds, oils and other materials will be secured within the support vehicles during the night so that animals cannot access them.

The project is located near the following sensitive receptors:

The landholders live on the property a significant distance from the drilling area. The nearest any drill site could be is approximately 4km from the house, and the drilling will not disturb the occupants.

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

The soils within the farm on which the planned drilling will occur, are classified as having "extremely severe limitations" on hilly (grazing) areas and "moderate limitations" on flat (cropping) areas. There are no acid sulfate soil zones in the area.

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

The planned drilling will not affect any surface water sources. The nearest water source to the planned drilling area is a dam in the next paddock, about 1100m away.

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

There are no known groundwater sources within the area of the planned activity. Should ground water be encountered, there will be no permanent impact. A temporary effect may be some water will be pushed to the surface by the drilling air pressure, where it will be controlled by the methods outlined earlier.

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

Topography of the area comprises a few low hills, with flats between the hills. All drilling is planned to take place on the flatter areas. Vegetation cover is sparse and of poor quality. It comprises Cyprus pines, acacias and some eucalypts, in clumps separated by rocky clearings with grasses and patches of smaller shrubs.

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

There are no matters of national environmental significance that are likely to be impacted by the activity.

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

There are no threatened species or ecological communities, or their habitats, that are likely to be affected by the planned activity.

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

There are no historic cultural or national heritage items that will be affected by the planned activity.

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

No critical habitat/areas of outstanding biodiversity value will be affected by the planned activity.

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

No items of Aboriginal cultural heritage occur within the area of the planned activity, or will be affected by the activity.

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
A3RC046 EDH00154 79	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC054 EDH00154 87	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC048 EDH00154 81	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC050 EDH00154 83	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC044 EDH00154 77	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC052 EDH00154 85	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n

Id/ Regulator no.	Type	Surface disturbance (m²)	Veg. Clearing (m²)	Excavations (m³)	Produced water (ml)	Depth (m)	Block number	Unit letters
A3RC040 EDH00154 73	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC042 EDH00154 75	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC055 EDH00154 88	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD063 EDH00154 96	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC057 EDH00154 90	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD065 EDH00154 98	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD059 EDH00154 92	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD067 EDH00155 00	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD061 EDH00154 94	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC043 EDH00154 76	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC051 EDH00154 84	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC045 EDH00154 78	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC053 EDH00154 86	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC047 EDH00154 80	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC049 EDH00154 82	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n

Id/ Regulator no.	Type	Surface disturbance (m ²)	Veg. Clearing (m ²)	Excavations (m ³)	Produced water (ml)	Depth (m)	Block number	Unit letters
A3RC041 EDH00154 74	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD060 EDH00154 93	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD068 EDH00155 01	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD062 EDH00154 95	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC056 EDH00154 89	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD064 EDH00154 97	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC058 EDH00154 91	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3DD066 EDH00154 99	DDH drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n
A3RC039 EDH00154 72	RC drill hole	50	5	0.5		200	963, 1035	w, x, b, c, g, h, m, n

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
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Impact management

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

No water is required for RC drilling. If diamond drilling is used, it is proposed that in-ground water sumps will be used, and sludge removed by bobcat/excavator once dry, and transported by contracted truck to an EPA approved disposal facility. Water will be sourced from stand pipes where the local council has confirmed water is available, or from local landholders by agreement. All drilling is planned at least 50m from any farm dam or permanent creek.

The project includes the following measures to manage groundwater impacts:

For diamond drilling., it is proposed that in-ground water sumps will be used for water storage, filled by water cart and sludge/cuttings removed by contractor machinery. Non-toxic and biodegradable drilling muds will be used. RC drilling does not require water for drilling purposes. If water is encountered, it will be captured from the outside return hose and cyclone in a turkey's nest to settle sediment, and then directed into geofabric/coir

logs/hay bails etc. A secondary sediment dam/bund can be installed around the first should that be inadequate. If enough water make occurs to require a small sump, this can be accommodated, and can be pumped or syphoned away from the work area once the water is sufficiently clear. If the volume of water intersected required greater settling time than could be achieved using a single sump, a second (or more) sump(s) could be setup in series.

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

RC drill cuttings will be tipped back down the holes, or collected and taken along with all other exploration waste to be disposed of at an EPA-approved waste facility. Any contaminated waste water will be removed by contracted sludge truck. All waste will be handled in accordance with the relevant Exploration Codes of Practice.

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

All drilling chemicals will be stored in a trailer and/or bunded area. Empty containers will be taken to a lawful waste facility or recycling centre and will be handled and disposed of in accordance with the relevant Exploration Codes of Practice.

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

Hours of operation for RC drilling will be aimed between 6am – 6pm. Diamond drilling is much less noisy, and may be conducted on day and night shift. The nearest habited sensitive receiver is a homestead located approximately 4km from the drill polygon boundary. A toolbox meeting for first half hour prior to operation will also take place. Work will need to be carried out during these operational hours on weekends and public holidays to maintain the integrity of the drill hole, prevent caving of the drill hole and prevent potential abandonment of the drill hole. These hours of operation have been agreed to by the landholders and will continue to be discussed with the landholders throughout the program.

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

This program is very unlikely to have significant or long term impacts on air quality. Dust will be minimised using the cyclone’s dust suppression system.

Sensitivity of the land to be disturbed

Question	Yes/no
Conservation areas	
Land reserved under the <i>National Parks and Wildlife Act 1974</i> ?	No
Land acquired by the Minister under Part 11 of the <i>National Parks and Wildlife Act 1974</i> ?	No
Land subject to a 'conservation agreement' under the <i>National Parks and Wildlife Act 1974</i> and/or the <i>Biodiversity Conservation Act 2016</i> ?	No
Land declared as an aquatic reserve under the <i>Marine Estate Management Act 2014</i> ?	No
Land declared as a marine park under the <i>Marine Estate Management Act 2014</i> ?	No
Land within State Forests set aside under the <i>Forestry Act 2012</i> for conservation values, including Flora Reserves or Special Management (and other) Zones?	No
Land reserved or dedicated under the <i>Crown Lands Act 1989/Crown Lands Management Act 2016</i> (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 <i>Wilderness Act 1987</i> ?	No
Land subject to a Biobanking agreement (established under the now repealed <i>Threatened Species Conservation Act 1995</i>) or a Biodiversity Stewardship agreement established under the <i>Biodiversity Conservation Act 2016</i> ?	No

Question	Yes/no
Land subject to a Wildlife Refuge agreement under the <i>Biodiversity Conservation Act 2016</i> ?	No
Land subject to existing conservation agreements on private land under repealed legislation that continue to have effect (e.g. trust agreements under <i>Native Conservation Trust Act 2001</i> , Property vegetation plans under <i>Native Vegetation Act 2003</i> , Registered property agreements under <i>Native Vegetation Conservation Act 1997</i>)?	No
Drinking water catchment protection areas	
Land declared to be a 'controlled area' or a 'special area' under the <i>Water NSW Act 2014</i> ?	No
Land declared to be a 'special area' under the <i>Water Management Act 2000</i> or <i>Hunter Water Act 1991</i> ?	No
Sensitive areas	
Land declared as area of outstanding biodiversity value under the <i>Biodiversity Conservation Act 2016</i> or critical habitat under Part 7A of the <i>Fisheries Management Act 1994</i> ?	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 <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> ?	No
Littoral rainforests mapped under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> ?	No
Coastal zone as defined in the <i>Coastal Management Act 2016</i> ?	No
Land identified in an environmental planning instrument as being of biodiversity/conservation significance or zoned for environmental conservation, protection and/or management?	No
Waterfront land defined under the <i>Water Management Act 2000</i> ?	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 <i>National Parks and Wildlife Act 1974</i> ?	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
Critical industry clusters	
Land identified as Critical Industry Cluster under <i>State Environmental Planning Policy (Resources and Energy) 2021</i> ?	No
Community land	
Public land classified as community land under the <i>Local Government Act 1993</i> ?	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

Question	Yes/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 <i>National Parks and Wildlife Act 1974</i> ?	No
Will the activity damage any listed heritage items?	No

Attachment 1 – Statement of commitments

Item	Commitment
Activity type	<p>Exploration activity comprising:</p> <ul style="list-style-type: none"> • 10 diamond drill holes • 20 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	25km NW from Lake Cargelligo, within EL 8968 (1992).
Activity scope (including any ancillary activities)	<p>AGC proposes to undertake a drilling program of up to 30 RC/DD holes, to a planned depth of around 100-250m per hole. A UDR1000 multipurpose track-mounted rig or similar will be used for RC and DD holes, and supporting trucks and light vehicles will be used onsite. The drilling is located on flat rocky, relatively low productivity land, which is open with patches of shrubs and trees. The land is partly cleared and disturbed by agriculture. Existing farm tracks and open but un-cropped paddocks will be used for access, however some regrowth and shrubs may need to be disturbed to provide safe access for vehicles. Trees will not need to be bulldozed, however some shrubs may need to be cleared for pad access, possibly by the landowner's bobcat or similar. PVC collars will be required and hand shovels/digging tools used to excavate turkeys nests to control water. Rehab will likely consist of tipping cuttings back down the hole, cutting PVC collars and plugging holes and backfilling the holes with the material dug from the holes or the top bag. Wheel ruts and other surface disturbance will be levelled by bobcat. Excess cuttings will be trucked to an EPA-approved disposal facility.</p> <p>Ancillary infrastructure or temporary accommodation are not expected to be required at this site. Water storage may be needed for diamond drilling, and will be held in tanks on a support truck or a trailer.</p>
Hours of operation	Other 7 days per week, 12 hours per day RC drilling, 24 hours possible for Diamond drilling
Expected duration (weeks)	Approximately 6 weeks
Anticipated start date	1 June 2024
Expected rehabilitation completion date	Estimated 9 April 2029
Maximum area of disturbance	1,500 square metres
Air quality	The title holder must implement all measures to prevent, so far as practicable, pollution caused by dust and other air pollutants.
Protection of water sources	<p>The title holder must implement all measures to prevent, so far as practicable, causing adverse impacts on water quality and quantity, including groundwater levels and pressure.</p> <p>Prior to the construction and use of any borehole, the holder of a coal prospecting title must prepare a Groundwater Monitoring and Modelling Plan in consultation with the Water Division of the NSW Department of Planning and Environment.</p>

Item	Commitment
Erosion, sediment and soil controls	<p>The title holder must implement all measures to prevent, so far as is practicable, causing any land degradation or pollution of land or water.</p> <p>The title holder must implement all practicable measures to prevent harm to the environment when disturbing land in areas of potential acid sulfate soils and actual acid sulfate soils.</p>
Noise and vibration	<p>The titleholder must implement all practicable noise management measures to ensure that noise levels meet acceptable noise criteria for sensitive receivers.</p> <p>Unless otherwise agreed with relevant landholders, the title holder must notify any potentially affected landholders at least 24 hours prior to detonating explosives.</p>
Use of chemicals, fuels and lubricants	<p>The titleholder must implement all measures to prevent, so far as is practicable, causing contamination of the environment by the release of chemicals, fuels, lubricants and other potential pollutants.</p> <p>The title holder must ensure that all chemicals, fuels and lubricants, excluding those contained within plant and equipment, are:</p> <ol style="list-style-type: none"> stored and handled in accordance with any relevant Safety Data Sheet and Australian Standards for the material, and stored in appropriate containers that are in good condition and labelled to clearly identify the stored product, and kept in a facility or area which is capable of containing at least 110% of the largest container capacity stored within that area. <p>The title holder must:</p> <ol style="list-style-type: none"> ensure that adequate spill prevention and absorbent materials required to manage spills and leaks for all potential pollutants which are on site are readily available at all times, and use appropriate equipment and materials to capture any drips and spills which occur during the transfer of potential pollutants, and when carrying out maintenance of hydrocarbon filled plant and equipment.
Waste	<p>The titleholder must manage all waste in a manner which does not cause harm to the environment.</p>
Vegetation clearing and surface disturbance	<p>The title holder must minimise the extent of any vegetation clearing and surface disturbance to as low as practicable.</p> <p>The boundaries of any areas of vegetation clearing and surface disturbance must be demarcated.</p> <p>The title holder must implement all measures to prevent, so far as practicable, adverse impacts to fauna caused by vegetation clearing or surface disturbance.</p> <p>The title holder must inspect trees and canopy branches for fauna prior to felling or branch removal, and clearly demarcate any hollows or active bird nests.</p> <p>The title holder must not proceed with tree felling or branch removal until any resident fauna have been relocated by an ecologist or other competent party.</p>
Roads and tracks	<p>The title holder must consult with relevant landholders prior to establishing any new roads or tracks.</p> <p>The title holder must plan, design, construct, maintain and use roads and tracks in a manner which minimises the area and duration of disturbance to the environment and landholders to as low as practicable.</p> <p>The title holder must construct any crossings of rivers, permanent and intermittent water lands and wetlands to prevent, so far as practicable, impacts on fish habitats.</p> <p>The title holder must refrain from using any unsealed road or track during wet conditions to prevent damage to that road or track, unless the road or track has been</p>

Item	Commitment
	<p>designed and constructed for use in wet conditions, or the landholder expressly consented to the use of that road or track in wet conditions.</p> <p>Unless otherwise agreed with the relevant landholder, the title holder must repair all damage to existing roads and tracks resulting from exploration activities.</p>
Aboriginal and other cultural heritage	The titleholder must implement all measures to prevent, so far as practicable, harm to Aboriginal cultural heritage and non-indigenous cultural heritage.
Weeds, pest animals and diseases	The titleholder must implement all practicable measures to prevent the introduction and spread of weeds, pest animals and animal and plant diseases.
Livestock protection	The title holder must implement all measures to prevent, so far as practicable, causing adverse impacts to livestock.
Fire prevention	The title holder must implement all measures to prevent, as far as practicable, the ignition and spread of fire.
Rehabilitation commitments	The activity will be undertaken in accordance with the rehabilitation objectives and targets provided for this project.
Risk assessments	The title holder 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 8968 (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 8968 (1992).
Codes of Practice	<p>Achilles will be operated in accordance with:</p> <ul style="list-style-type: none"> • 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 <i>National Parks and Wildlife Act 1974</i> .
Aboriginal place	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
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: <ul style="list-style-type: none"> 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 <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – 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 <i>Marine Estate Management Act 2014</i> .
Areas of Outstanding Biodiversity Value (AOBVs)	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> . Note: Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i> .
Assessable prospecting operation	Any prospecting operation that is not exempt development within the meaning of <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Clearing of vegetation	Any one or more of the following: <ul style="list-style-type: none"> 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 <i>Exploration guideline: Application and assessment process for exploration activities</i> .
Critical habitat	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> . Areas of declared critical habitat under the now repealed <i>Threatened Species Conservation Act 1995</i> have become Areas of Outstanding Biodiversity Value (AOBVs) under the <i>Biodiversity Conservation Act 2016</i> .
Drill hole	A hole made by drilling or boring, but excludes: <ul style="list-style-type: none"> 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

Word	Definition
	includes all operations for preventing collapse of the sides of such hole or for preventing it from being filled with extraneous materials including water
Environment	Has the same meaning as it has in the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Environmentally sensitive area of State significance	Has the same meaning as it has in <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
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 <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Exploration	Has the same meaning as it has in <i>State Environmental Planning Policy (Resources and Energy) 2021</i> .
Fauna	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Groundwater	Water that occurs beneath the ground surface in the saturated zone.
Habitat	Has the same meaning as it has in the <i>Biodiversity Conservation Act 2016</i> or the <i>Fisheries Management Act 1994</i> (as relevant).
Harm	<p>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 <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i>.</p> <p>In relation to the environment, has the same meaning as it has in the <i>Protection of the Environment Operations Act 1997</i>.</p> <p>In relation to threatened species or ecological communities, has the same meaning as:</p> <ul style="list-style-type: none"> • 'harm an animal' in the <i>National Parks and Wildlife Act 1974</i> • 'pick a native plant' in the <i>National Parks and Wildlife Act 1974</i> • 'harm' in the <i>Fisheries Management Act 1994</i>. <p>In relation to an aquifer or waterfront land, has the same meaning as it has in the <i>Water Management Act 2000</i>.</p> <p>In relation to Aboriginal places or Aboriginal objects has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i>.</p> <p>In relation to items of heritage significance, has the same meaning as it has in the <i>Heritage Act 1977</i>.</p> <p>In relation to protected marine vegetation, has the same meaning as it has in the <i>Fisheries Management Act 1994</i>.</p>
Items of heritage significance	<p>Means:</p> <ul style="list-style-type: none"> • any heritage items listed in one or more of the following: <ul style="list-style-type: none"> — the Commonwealth Heritage List — the World Heritage List — the National Heritage List — the State Heritage Register — an Environmental Planning Instrument

Word	Definition
	<ul style="list-style-type: none"> • 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 • within State Conservation Areas: <ul style="list-style-type: none"> — 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	<p>Includes:</p> <ul style="list-style-type: none"> • 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 <i>Fisheries Management Act 1994</i> .
Matters of national environmental significance	'Matters of national environmental significance' protected under the <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> .
Minister	The Minister administering the <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – as relevant.
Native vegetation	Has the same meaning as it has in the <i>Local Land Services Act 2013</i> .
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 <i>Mining Act 1992 / Petroleum (Onshore) Act 1991</i> – 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	<p>Includes:</p> <ul style="list-style-type: none"> • dwellings • libraries • educational and research institutions (including schools, colleges and universities) • childcare centres • kindergartens • hospitals, surgeries and other medical institutions • places of worship

Word	Definition
	<ul style="list-style-type: none"> • milking sheds and holding yards associated with dairies • animal boarding or training establishments • aquaculture • intensive livestock agriculture
Site	The land on which an activity is located.
State Conservation Area	Has the same meaning as it has in the <i>National Parks and Wildlife Act 1974</i> .
Surface disturbance	Means: <ul style="list-style-type: none"> • 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 <i>Biodiversity Conservation Act 2016</i> or <i>Fisheries Management Act 1994</i> (as relevant).
Title	An authority under the <i>Mining Act 1992</i> / a title under the <i>Petroleum (Onshore) Act 1991</i> – 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 <i>Protection of the Environment Operations Act 1997</i> .
Water source	Has the same meaning as it has in the <i>Water Management Act 2000</i> .
Water land	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> .
Waterfront land	Has the same meaning as it has in the <i>Water Management Act 2000</i> .
Wetlands	Has the same meaning as it has in the <i>Fisheries Management Act 1994</i> .
Wilderness	Lands identified as wilderness under the <i>Wilderness Act 1987</i> .
Wilderness area	Lands (including subterranean lands) declared to be a wilderness area under the <i>Wilderness Act 1987</i> or the <i>National Parks and Wildlife Act 1974</i> .

Attachment 3 – List of supporting documents

- Achilles AHIMS Seach_Nov 2023.pdf
 - Achilles Critical Habitat Biodiversity Search_May2024.pdf
 - Achilles drilling area site photos_2024.zip
 - Achilles_RC-DD_Heritage_Search_Nov 2023.docx
 - APO0001773_Submission Report_24 May 2024 8:43am.pdf
 - APO0001773_Submission Report_3 Jun 2024 4:15pm.pdf
 - Appendix 1_20240522_AGC_APO_Achilles_Summary_Presentation.pdf
 - Protected Matters - MNES layers - November 15th 2023.zip
 - SpeciesList_Achilles_Nov 2023.xlsx

FORM: APO_C_Apvl v3.1