



# Works Approval

<b>Works Approval Number</b>	W6172/2018/1
<b>Works Approval Holder ACN</b>	Mardie Minerals Pty Ltd 152 574 457
<b>Registered business address</b>	Level 1, 15 Rheola Street WEST PERTH WA 6005
<b>File Number</b>	DER2018/001311
<b>Duration</b>	07/01/2019 to 06/01/2021
<b>Date of issue</b>	07/01/2019
<b>Prescribed Premises</b>	Category 14: Solar salt manufacturing
<b>Premises</b>	Mardie Trial Project Part of exploration tenements E08/1849 and E08/2741 MARDIE WA 6714 as defined by the coordinates in Schedule 1

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 4 January 2019, by:

**Alana Kidd**

**Manager, Resource Industries**

an officer delegated under section 20 of the *Environmental Protection Act 1986 (WA)*

## Explanatory notes

These explanatory notes do not form part of this Works Approval.

### Defined terms

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Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

### Department of Water and Environmental Regulation

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The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986 (WA)* (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

### Works Approval

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Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987 (WA)* (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

### Responsibilities of Works Approval Holder

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Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and

- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

### Reporting of incidents

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The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

### Offences and defences

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The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

### Authorised Emissions and Discharges

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The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

### Amendment of Works Approval

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The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative

of the CEO without an application being made.

#### Duration of Works Approval

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The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

#### Suspension or revocation

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The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

## Definitions and interpretation

### Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means:  Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a> .
Commission	means the process of operation and testing that verifies that all relevant systems, machinery and equipment associated with the Trial Project have been installed and are performing in accordance with Table 2.
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to:  (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
Discharge	has the same meaning given to that term under the EP Act.
DWER	Department of Water and Environmental Regulation.
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986 (WA)</i> .

<b>Term</b>	<b>Definition</b>
EP Regulations	means the <i>Environmental Protection Regulations 1987 (WA)</i> .
HDPE	high density polyethylene.
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Licence	the licence issued under Part V, Division 3 of the EP Act.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Trial Project	refers to the infrastructure/equipment described in Table 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.54 of the EP Act, subject to the Conditions.
Works Approval Holder	refers to the occupier of the Premises being the person to whom this Works Approval has been granted, as specified at the front of this Works Approval.

## Interpretation

In this Works Approval:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a Condition, each row in a table constitutes a separate Condition;
- (d) any reference to an Australian or other standard, guideline or code of practice in this Works Approval means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

## Conditions

### Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Trial Project for the infrastructure and equipment:
  - (a) specified in Column 1;
  - (b) to the requirements specified in Column 2; and
  - (c) at the location specified in Column 3of Table 2 below.
2. The Works Approval Holder must not depart from the requirements specified in Column 2 of Table 2 except:
  - (a) where such departure does not increase risks to public health, public amenity or the environment; and
  - (b) all other Conditions in this Works Approval are still satisfied.
3. Subject to Condition 1, within 30 days of the completion of the Trial Project specified in Column 1 of Table 2, the Works Approval Holder must provide to the CEO a report from a suitably qualified engineer confirming each item of infrastructure or component of infrastructure specified in Column 1 of Table 2 below has been constructed with no material defects and to the requirements specified in Column 2.
4. Where a departure from the requirements specified in Column 2 of Table 2 occurs and is of a type allowed by Condition 2, the Works Approval Holder must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 2(b).
5. The Works Approval Holder shall Commission the Trial Project for a period of no longer than 3 months, or until a Licence for the Premises is issued, in accordance with the Conditions of this Works Approval, following submission of the report required by Condition 3.

**Table 2: Infrastructure and equipment requirements table**

	Column 1	Column 2	Column 3
	Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
1	Pump and seawater inlet system	<p>Seawater inlet:</p> <ul style="list-style-type: none"> <li>• Located within a creek bed.</li> </ul> <p>Inlet system and pump:</p> <ul style="list-style-type: none"> <li>• A triple layered screen to prevent faunal entrapment.</li> <li>• High and low pressure safety switches.</li> <li>• Flow meter.</li> <li>• Seawater pump installed on raised ground above the calculated storm inundation water level.</li> <li>• Level switch to prevent the pump from running without 600 mm of water.</li> </ul>	Schedule 1: Premises map – Sea Water Pump and Generator
2	Pipeline	<ul style="list-style-type: none"> <li>• 75 diameter HDPE pipeline</li> </ul>	Schedule 1: Premises map – Sea Water Supply
3	Bund wall	<ul style="list-style-type: none"> <li>• Clay wall to a height of 4.2 m Australian Height Datum.</li> <li>• Designed to protect against a 1:100 Average Recurrence Interval.</li> <li>• Clay core covered with blended gravel and fines to form a compactable fill.</li> <li>• Lined on the outside with light weight rock armour.</li> </ul>	Schedule 1: Premises map – Mardie Trial Ponds and Infrastructure; and External bund wall and internal pond wall sections
4	Pilot evaporation ponds and crystallisers	<ul style="list-style-type: none"> <li>• Situated on the east side of a mud flat island within the bund wall.</li> <li>• Contained within a bunded area 180 m long x 120 m wide.</li> <li>• 8 x Evaporation Ponds.</li> <li>• Ponds P1 to P7 unlined.</li> <li>• Ponds P1 to P7 compacted clay at the foot of the walls to ensure there is a clay seal between the wall and the underlying salt flats.</li> <li>• Pond P8 lined with a 1 mm thick</li> </ul>	Schedule 1: Premises map – Mardie Trial Ponds and Infrastructure; Trial Ponds Layout; and External bund wall and internal pond wall sections



	Column 1	Column 2	Column 3
	Infrastructure/ Equipment	Requirements (design and construction)	Site plan reference
		HDPE membrane. <ul style="list-style-type: none"> <li>11 x Crystallisers all lined with a 1 mm thick HDPE membrane.</li> </ul>	
5	Pan evaporators	<ul style="list-style-type: none"> <li>21 x pan evaporators.</li> <li>Fabricated from stainless steel to the Bureau of Meteorology specifications.</li> <li>Located on timber pallets.</li> </ul>	Schedule 1: Trial Pond Layout
6	Supporting infrastructure	<ul style="list-style-type: none"> <li>Installed above the maximum flood level.</li> </ul>	Schedule 1: Premises map – Mardie Trial Ponds and Infrastructure; and Trial Ponds Layout

## Emissions

6. The Works Approval Holder must not cause any Emissions from the Trial Project authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2, of Table 3.

**Table 3: Authorised Emissions table**

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
<b>Specified Emissions</b>	
Seawater discharged to unlined ponds P1 to P7	Subject to compliance with: <ul style="list-style-type: none"> <li>Rows 1 to 4 of Table 2; and</li> <li>Conditions 1 to 5.</li> </ul>
<b>General Emissions (excluding Specified Emissions)</b>	
Emissions which arise from undertaking the Trial Project set out in Table 2 and Schedule 1.	Emissions excluded from General Emissions are: <ul style="list-style-type: none"> <li>Unreasonable Emissions; or</li> <li>Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or</li> </ul>

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
	<ul style="list-style-type: none"> <li>• Discharges of Waste in circumstances likely to cause Pollution; or</li> <li>• Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or</li> <li>• Emissions or Discharges which do not comply with an Approved Policy; or</li> <li>• Emissions or Discharges which do not comply with prescribed standard; or</li> <li>• Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or</li> <li>• Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</li> </ul>

## Record-keeping

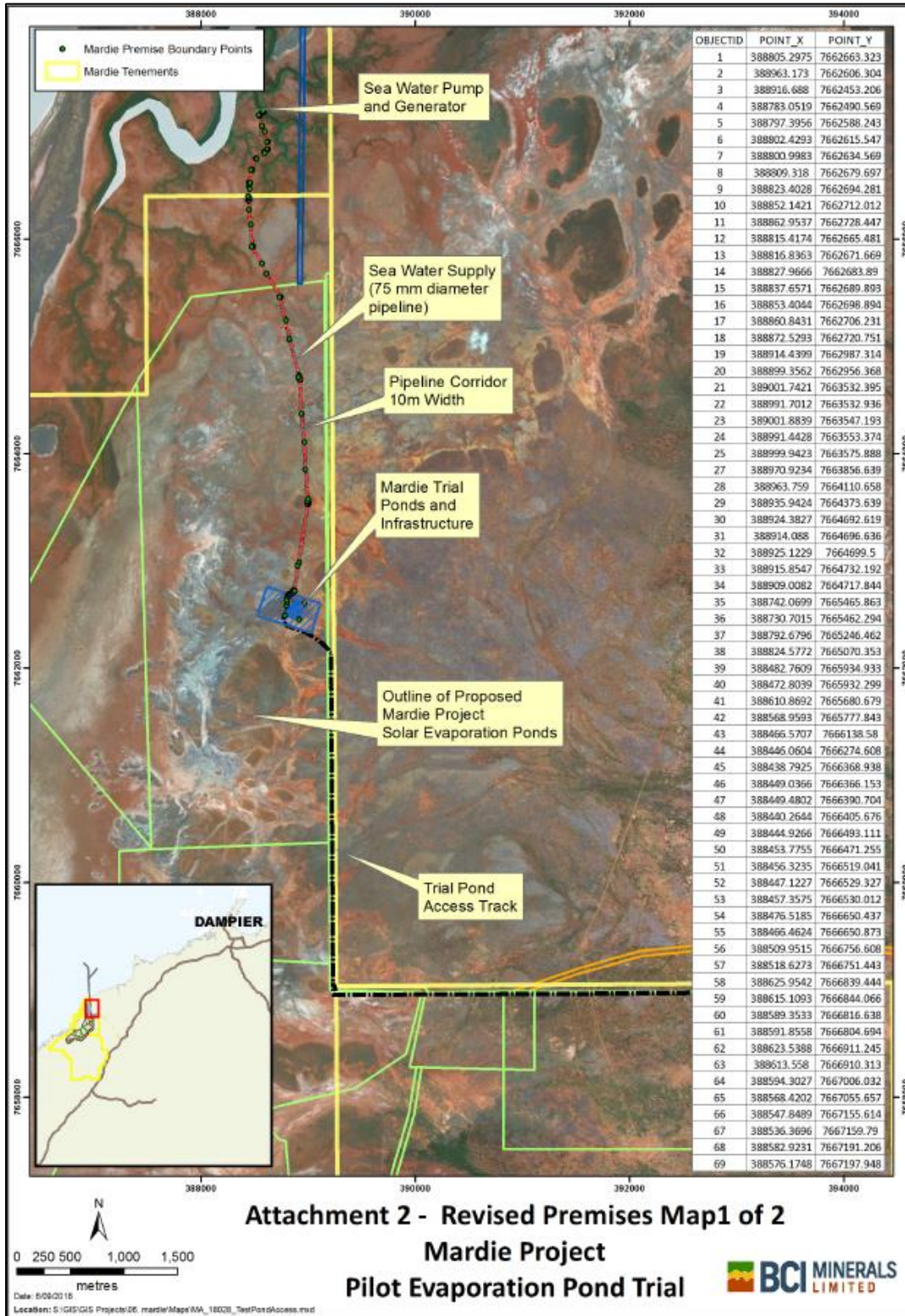
7. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Trial Project and the Books must:
  - (a) be legible;
  - (b) if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) be retained for at least 3 years from the date the Books were made;
  - (d) be available to be produced to an Inspector or the CEO.
8. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

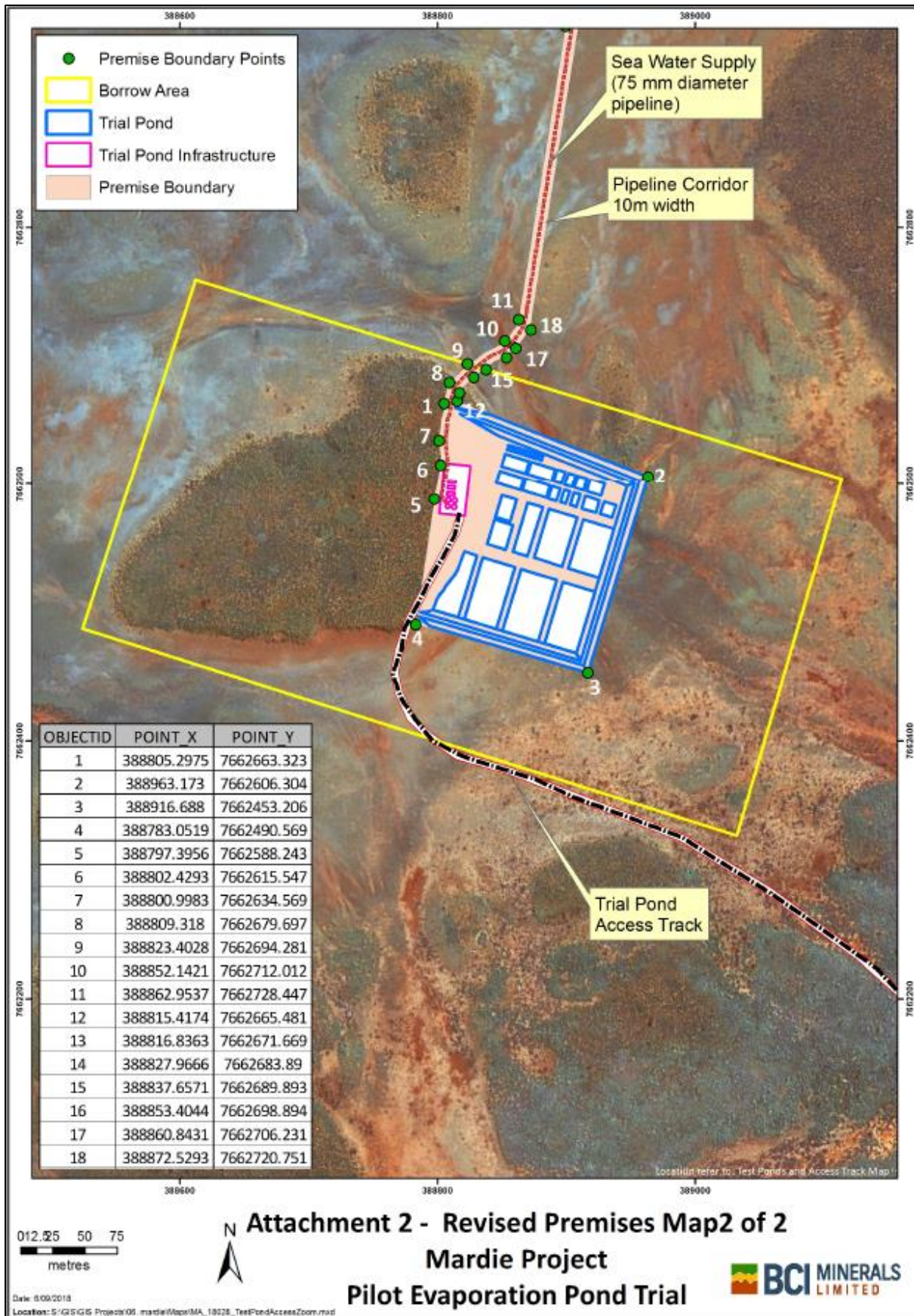
# Schedule 1: Maps

## Premises map

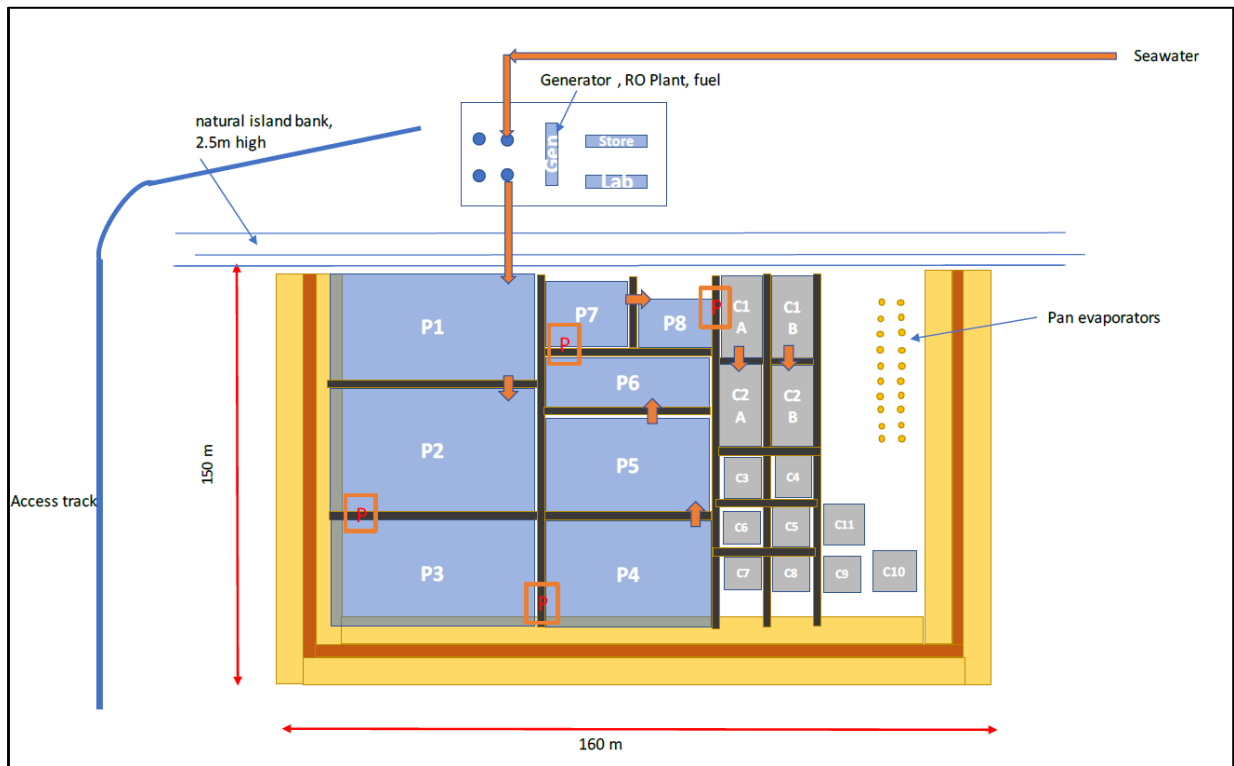
The Premises is shown in the two maps below.

The Premises boundary is defined by the coordinates in the two maps below.





## Trial ponds layout



## External bund wall and internal pond wall sections

