

## Approval notice and statement of reasons

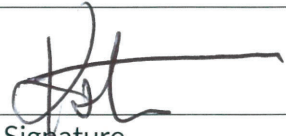
### *Petroleum (Environment) Regulations 2016 (NT) (Regulations)*

Interest holder(s)	Central Petroleum Mereenie Pty Ltd ABN: 95 009 718 183 NZOG Mereenie Pty Ltd ABN: 72 650 386 360 Macquarie Mereenie Pty Ltd ABN: 36 616 486 974 Cue Mereenie Pty Ltd ABN: 22 650 385 336  Nominated Operator: Central Petroleum Limited (CTP) ABN: 72 083 254 308
Petroleum interest(s)	Production Licence 4 (OL4)
Environment management plan (EMP) title	Mereenie Development Wells WM29/WM30
EMP document reference	CTP7-5 prepared by Central Petroleum Limited dated 5 March 2024
Regulated activity	<ul style="list-style-type: none"> <li>land clearing of up to 5.45 hectares (ha),</li> <li>construction of wellsite access tracks, well pads, flowlines and vehicle turnarounds,</li> <li>construction of wellsite infrastructure including one lined turkey nest, lined drilling sump, and clay lined flare pit at each wellsite,</li> <li>drilling of two conventional petroleum development wells, one at each well site</li> <li>establishment and operation of one temporary 50 person camp on a pre-cleared area,</li> <li>flow testing and flaring for an equivalent four days (per well),</li> <li>site demobilisation,</li> <li>rehabilitation.</li> </ul>
Is the EMP a new plan submitted under reg 6 or a revision of a current plan submitted in accordance with reg 18, or regs 15 and 17?	This is a new plan submitted under reg 6.
Was the regulated activity referred <sup>1</sup> for consideration whether environmental impact assessment was required?	No
Was environmental impact assessment <sup>2</sup> required?	N/A
Has an environmental approval <sup>3</sup> been issued for the regulated activity?	N/A
Has an Authority Certificate under the <i>Northern Territory Aboriginal Sacred Sites Act 1989</i> been issued for the regulated activity?	Yes Authority Certificate C2023/105
Date an EMP compliant with reg 8 was first submitted under reg 6	8 September 2023

<sup>1</sup> This means a referral under the *Environment Protection Act 2019 (NT) (EP Act)* and/or the *Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)*.

<sup>2</sup> This means a requirement for an environmental impact assessment to be conducted under the EP Act and/or the EPBC Act.

<sup>3</sup> This means an approval granted under the EP Act and/or the EPBC Act.

Date within which the EMP was published for comment under reg 8A, if applicable	18 September 2023 to 16 October 2023
Date further information was required and submitted under reg 10, if applicable	9 November 2023 (requested) 22 December 2023 (submitted) 19 January 2024 (requested) 9 February 2024 (submitted) 16 February 2024 (requested) 1 March 2024 (submitted) 23 February 2024 (requested) 1 March (submitted) 5 March 2024 (requested) 5 March 2024 (submitted)
Date of resubmission notice under reg 11(2)(b), if applicable	9 November 2023 (requested) 22 December 2023 (submitted)
Date EMP was resubmitted under reg 11(3), if applicable	19 January 2024 (requested) 9 February 2024 (submitted)
Date a notice setting out a proposed timetable for consideration of the EMP was issued under reg 11(2A), or reg 11(3)(c), if applicable	23 February 2024
Proposed timetable given in notice under reg 11(2A), or reg 11(3)(c), if applicable	24 March 2024
Where provided under s29B of the <i>Northern Territory Environment Protection Authority Act 2012</i> (NT) (NT EPA Act), the dates the Northern Territory Environment Protection Authority (NT EPA) was requested to, and provided, advice on EMP	Date of Minister's request for advice: 25 February 2019 Date of NT EPA Advice: 15 March 2024 NTEPA2023/0124-002~0001
Date of decision	21/03/2024
Decision maker	 Signature
	Hon Kate Worden MLA, Minister for Environment, Climate Change and Water Security

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- I approve the EMP under reg 11(3)(a)(i).
- The approval is subject to the following conditions:

### Notification Conditions

**Condition 1:** By 1 September of each year, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a notification if civil works (being all ground disturbing activities, including earth moving, land clearing, installation of gravel pits, establishment of well pads, and establishment of access tracks) are proposed to be conducted during the upcoming Wet Season (as defined in the *Code of Practice: Onshore Petroleum Activities in the Northern Territory* (2019) (**the Code**)). The notification must include:

- the nature of the proposed civil works activities; and
- the proposed timeframe for conducting the civil works activities.



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**Condition 2:** Within 24 hours of commencement or completion of civil works activities (being all ground disturbing activities, including earth moving, land clearing, installation of gravel pits, establishment of well pads, and establishment of access tracks), the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a notification that civil works activities have commenced or ceased, including the date the activities commenced or ceased and the type and location of the activities.

**Condition 3:** Within 30 days of completing land clearing or other ground disturbing activities (being all ground disturbing activities, including earth moving, land clearing, use of gravel pits, establishment of well pads, and establishment of access tracks), the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) geospatial files (as shapefiles and inclusive of metadata).

**Condition 4:** Within 24 hours of drilling activity commencement or completion, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a notification that drilling activities have commenced or completed, including the location of the relevant drilling activity.

### Reporting Conditions:

**Condition 5:** By 1 October of each year, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a completed Annual Environmental Performance Report (AEPR) for the preceding 12 month period of 1 July to 30 June using the AEPR template. The AEPR template must be completed in accordance with the *Onshore Petroleum Annual Environmental Performance Reporting Guideline* (21 December 2023).

**Condition 6:** Within three business days of 31 March, 30 June, 30 September and 31 December of each year, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a report with the following information:

- i. regulated activities completed in the previous quarter;
- ii. regulated activities to be conducted in the next quarter, including estimated duration;
- iii. the date any conditions of this approval were completed in the previous quarter;
- iv. the date any conditions of this approval are due for completion in the next quarter; and
- v. monitoring and compliance activities to be conducted in the next quarter based on commitments in the approved EMP, relevant to the stage of a regulated activity.

**Condition 7:** During the Wet Season (as defined in the Code), the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) weekly reports with the following information:

- i. whether unsealed access roads were used by any vehicle or machinery, other than a light vehicle;
- ii. daily inspection reports of erosion and sediment control measures and, where relevant, the type and date of corrective actions taken, or date proposed to be taken, in response to issues identified in the daily inspection reports;
- iii. daily inspection reports for secondary containment in use and, where relevant, the type and date of corrective actions taken, or date proposed to be taken, in response to issues identified in the daily inspection reports; and

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- iv. all dates the regulated activity was stopped due to Wet Season events and the date and time that the regulated activity recommenced, or is proposed to recommence.

**Condition 8:** During drilling activities, the interest holder must record the date, time and position title of the officer who conducted the daily inspection, and must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) a weekly report with the following information:

- i. the daily freeboard available in drill cutting pits (in cm) and the time of measurement; and
- ii. whether any non-compliances with legal requirements were identified in the daily inspections and, if relevant, corrective actions taken, or proposed to be taken, and the timeframe for implementation of corrective actions, in response to the non-compliances.

**Condition 9:** The interest holder must submit the weekly reports required by conditions 7 and 8 by 5pm ACST each Monday for the preceding week or part thereof.

**Condition 10:** The interest holder must submit recordable incident reports to [Onshoregas.depws@nt.gov.au](mailto:Onshoregas.depws@nt.gov.au) no later 5 pm ACST 15 days after the end of each quarter, being 15 April, 15 July, 15 October and 15 January each year while the approved plan remains in force, and must be submitted regardless of whether an incident occurred during the reporting period or not.

### Greenhouse Gas Emissions Condition:

**Condition 11:** By 31 October of each year, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) the emissions report required by clause D.6.2 of the Code, which must:

- i. calculate emissions in accordance with the National Greenhouse and Energy Reporting (Measurement) Determination 2008;
- ii. document actual annual greenhouse gas emissions from conduct of the regulated activity estimated and reported under the Commonwealth *National Greenhouse and Energy Reporting Act 2007* (NGER Act) versus predicted emissions in the EMP (CTP7-5);
- iii. demonstrate the actual emissions have been verified by an auditor registered under the Register of Greenhouse and Energy Auditors established under section 75A of the NGER Act;
- iv. include a summary of all regulated activities conducted which have contributed to greenhouse gas emissions during the reporting period; and
- v. account for differences between actual and predicted emissions with reference to all parts of the regulated activity with potential to create greenhouse gas emissions.

FOOTNOTE 1: Clause D.6.2(b) of the Code requires annual actual greenhouse gas emissions to be provided even where emissions are below the NGER Act threshold of 25 ktCO<sub>2</sub>-e for scope 1 and scope 2 emissions reporting.

### Incident Management Condition:

**Condition 12:** The interest holder must record all releases of liquid contaminant or hazardous chemicals in a site spill register, which records:

- i. the liquid contaminant or hazardous chemical spilled or leaked;
- ii. the GPS co-ordinates of the location of the spill or leak;
- iii. the source and volume of the spill or leak;



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- iv. the volume of impacted soil removed for disposal and the depth of any associated excavation;
- v. the location impacted soil is transferred to; and
- vi. the corrective actions taken or proposed to be taken to prevent recurrence of an incident of a similar nature.

### Groundwater Monitoring Conditions:

**Condition 13:** The interest holder must undertake six-monthly groundwater monitoring at established groundwater monitoring bores (RN017898 and RN017657) in the Mereenie Field.

**Condition 14:** Within 90 days of the anniversary of the approval date of the EMP (CTP7-5), and each subsequent year, the interest holder must submit to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) an interpretative report of groundwater quality which includes:

- i. identification of any change to groundwater quality or level attributable to conduct of the regulated activity at the well site(s) and discussion of the significance and cause of any such observed change;
- ii. interpretation of any statistical outliers observed from baseline measured values for each of the analytes listed in Table 6 of the Code;
- iii. a summary of the results including descriptive statistics;
- iv. discussion of any trends observed;

### Rehabilitation Condition:

**Condition 15:** Within 90 days of the anniversary of the approval of the EMP (CTP7-5), and thereafter annually, the interest holder must provide a rehabilitation report to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) which:

- i. provides the dates vegetation monitoring analogue sites were established and surveyed during the preceding 12 month period;
- ii. provides the dates rehabilitation monitoring was undertaken during the preceding 12 month period;
- iii. analyses and compares rehabilitation progress against analogue sites and the rehabilitation criteria in the EMP;
- iv. includes corrective actions identified for rehabilitated areas and the date those corrective actions were implemented, or the date they are proposed to be implemented; and
- v. is accompanied by geospatial files (as shapefiles and inclusive of metadata) identifying the areas rehabilitated during the preceding 12 month period.

### Wastewater Management Conditions:

**Condition 16:** The interest holder must not introduce wastewater into any flare pit unless demonstrated to be impervious, in accordance with conditions 17 to 20 below.

**Condition 17:** The interest holder must undertake performance testing of any flare pit(s) proposed to contain wastewater that demonstrates the impervious nature of the flare pit.

**Condition 18:** The interest holder must provide to [Onshoregas.DEPWS@nt.gov.au](mailto:Onshoregas.DEPWS@nt.gov.au) within 28 days of completion of performance testing a report detailing:

- i. the performance test(s) used to determine flare pit permeability;

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- ii. the performance test acceptance standards applied; and
- iii. the results of the performance test(s) applied for each flare pit.

**Condition 19:** The interest holder must undertake and keep records of a visual inspection of the flare pit prior to the commencement of any activity that could result in the introduction of any wastewater. The visual inspections should be sufficient to detect structural defects which could influence the capacity of the flare pit to contain wastewater.

**Condition 20:** The interest holder must undertake repeat performance testing of a flare pit if any of the following conditions are met:

- i. more than 12 calendar months have passed between use of a flare pit to contain wastewater, or
- ii. a visual inspection of the flare pit identifies structural defects in the integrity of the liner, or
- iii. if instructed to by an Inspector.

### **Human Health Risk Assessment Conditions:**

**Condition 21:** The interest holder must undertake six-monthly testing of the quality of all wastewater produced from petroleum wells, consistent with clause C.5.5(c) of the Code, with the first testing to be undertaken within six months of the date of approval of the EMP.

**Condition 22:** The interest holder must provide a report consistent with the requirements of regulation 37B(2) to [Onshoregas.depws@nt.gov.au](mailto:Onshoregas.depws@nt.gov.au) within 90 days of the second testing event referred to in condition 15, inclusive of a full human health risk assessment, in accordance with regulations 37B(2A) and 4A.

**Condition 23:** The interest holder must review the results of testing undertaken in condition 21 to ensure:

- i. the wastewater and spill management practices in the EMP remain appropriate for the concentrations of analytes detected; and
- ii. the storage, treatment and transport of wastewater remain consistent with legislated requirements for NORMs and listed waste; and
- iii. The human health risk assessment undertaken in accordance with condition 22 remains applicable to the type and concentrations of analytes detected.



## 2 Material considered

1. The following material has been taken into account in making this decision:
  - a. Mereenie Development Wells WM29/WM30 EMP, 5 March 2024.
  - b. The principles of ecologically sustainable development referenced in reg 5A and the approval criteria set out in reg 9(1).
  - c. The NT EPA advice provided at my request under s29B of the NT EPA Act.
  - d. The Authority Certificate issued under the *Northern Territory Aboriginal Sacred Sites Act 1989*.
  - e. The Code of Practice: Onshore Petroleum Activities in the Northern Territory (Code) as set out in reg 4A.
  - f. The Department of Industry, Tourism and Trade advice that the Well Operations Management Plan approved for the regulated activity meets the requirements of the Code.

## 3 Statement of reasons

1. The EMP meets the approval criterion in reg 9(1)(a), because it contains all the information required by Schedule 1 of the Regulations. reg 9(1)(a)
2. I have taken into account the approval criterion in reg 9(1)(b) by noting the nature and scale of the regulated activity and bearing it in mind during my consideration of the impacts and risks. In particular, I note that: reg 9(1)(b)
  - a. The nature of the regulated activity is as follows:
    - i. Development of two well pads
    - ii. Construction of wellsite infrastructure including one turkey nest, drilling sump, and flare pit at each wellsite,
    - iii. Construction of wellsite access tracks, pipelines and vehicle turnarounds,
    - iv. Development and either completion or decommissioning of 2 convention gas wells.
    - v. Land clearing for the purposes of the above activities.
    - vi. Operation of one temporary camp on a pre-cleared area.
    - vii. Site demobilisation.
    - viii. Rehabilitation of disturbed areas back to its original land use.
  - b. The scale of the regulated activity is as follows:
    - i. A total area of surface disturbance of 5.45 ha.
    - ii. An estimated groundwater usage of 3.65 ML.
    - iii. A peak traffic movements for the regulated activity of 20 vehicles consisting of approximately 40% being heavy vehicles.
    - iv. A workforce of up to 50 personnel.
    - v. Flow testing and flaring for an equivalent four days (per well)
    - vi. A predicted upper limit of emissions is 3,475 tCO<sub>2</sub><sup>e</sup> (total) this accounts for all component of this regulated activity including the production testing and flaring.

3. The approval criteria in reg 9(1)(c) requires that I be satisfied that the activity will be carried out in a manner by which the environmental impacts and environmental risks of the activity will be reduced to a level that is both: (i) as low as reasonably practicable; and (ii) acceptable. In assessing whether the EMP meets the approval criteria, I note that my decision is a prescribed decision (under reg 5A) for s 6A of the Act, and as such requires me to consider and apply the principles of ecologically sustainable development. In accordance with reg 12(3), I provide the following information about how the EMP meets the approval criteria, and the manner in which I have taken into account the principles of ecologically sustainable development when considering whether or not the plan meets the approval criteria.[ reg 9(1)(c)
4. The principles of ecologically sustainable development are defined at section 18-24 of the *Environment Protection Act 2019*, and I address each in turn:
- a. The decision-making principle (s 18 *Environment Protection Act 2019*) requires effective integration of long-term and short-term environmental and equitable considerations, and for processes to provide for community involvement in relation to decisions and actions that affect the community. Related to this, I note the following:
    - i. The regulated activity is low impact and of short duration 138 days plus rehabilitation and forms one component of a broader onshore petroleum exploration program in the region. The regulated activity will inform decision-making about longer-term petroleum activities.
    - ii. Public consultation on the EMP was required under the Petroleum (Environment) Regulations 2016, as the EMP proposes drilling activities. The EMP was made available for public comment for 28 days from 18 September to 16 October 2023. No public submissions on the EMP were received.
    - iii. The NTG agencies and NT EPA Onshore Gas Committee comments were addressed by the interest holder via an updated EMP.
    - iv. I am satisfied that the community has had a reasonable opportunity to be involved in processes in relation to this decision.
    - v. Next, I have considered short-term and long-term environmental impacts of carrying out the regulated activity. Environmental impacts include direct and indirect effects on the physical, biological, economic, cultural and social aspects of the environment, and may include cumulative impacts or occur over time.
    - vi. The information before me suggests short-term environmental impacts are negligible if the regulated activity is undertaken in the manner detailed in the EMP in addition to the conditions of approval.
    - vii. The information before me suggests long-term environmental impacts are negligible if the regulated activity is undertaken in the manner detailed in the EMP in addition to the conditions of approval.
    - viii. There is no particular contest between economic, social and environmental considerations that requires further mention.
    - ix. Taking an integrated view of long-term and short-term environmental and equitable considerations, I am satisfied that the considerations on balance and taken together support approval of the EMP.
  - b. The precautionary principle (s 19 *Environment Protection Act 2019*) applies when there are threats of serious or irreversible environmental damage, and requires that lack of full scientific certainty should not be used as a reason for postponing



measures to prevent environmental degradation. I am satisfied that the regulated activity does not pose a threat of serious or irreversible environmental damage.

- i. I have carefully evaluated the proposed precautionary measures against the risk-weighted consequences of impacts given the options available, and with a view to avoiding serious or irreversible damage to the environment wherever practicable. The EMP combined with the conditions I have imposed mitigates risks of serious or irreversible damage due to lack of full scientific certainty to a level that is both as low as reasonably practicable and acceptable.
- c. The principle of evidence-based decision-making (s 20 *Environment Protection Act 2019*) requires decisions to be made on the best available evidence in the circumstances that is relevant and reliable. I am of the view that the evidence before me satisfies this requirement for the following reasons: I am satisfied that the best available evidence has been obtained because:
  - i. The EMP was developed by environmental consultants and reviewed by the operator's environmental specialist with experience in the Amadeus Basin and/or environmental engineering or management.
  - ii. The interest holder employed a comprehensive process to obtain relevant information including consultation with relevant government agencies, desktop studies, baseline assessments, archaeological assessments and stakeholder engagement in order to support the development of the EMP.
  - iii. The EMP was available for public comment to identify any deficiencies or additional evidence required from 18 September 2023 to 16 October 2023.
  - iv. The EMP has undergone review and assessment by a multi-disciplinary team in DEPWS and NT Government agencies, which has informed my decision on the EMP.
  - v. The EMP has been modified to address areas of uncertainty, areas of concern or areas requiring clarification. These included the disturbance footprint; threatened species; cumulative impacts; spill and wastewater management; cultural heritage; environmental outcomes and performance standards.
  - vi. No concerns regarding the sufficiency of information to support the modified EMP are apparent. I am satisfied the information before me is comprehensive and appropriate noting the scale and scope of the regulated activity.
  - vii. I believe the information regarding the proposed regulated activity adequately provides the best available evidence in the circumstances that is relevant and reliable to the evidence-based decision-making process.
- d. The principle of intergenerational and intra-generational equity (s 21 *Environment Protection Act 2019*) requires that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of present and future generations. I have given consideration to the impact on present and future generations as follows:
  - i. This criterion requires me to turn my mind to whether the benefits of the proposal disproportionately burden present or future generations, or particular groups or communities of present or future generations.
  - ii. I have considered the use of groundwater and am satisfied that the proposed use will not result in either short-term or long-term impacts to other groundwater users.
  - iii. I have considered whether the health, diversity and productivity of the environment is maintained or enhanced for the benefit of each of the

relevant groups and conclude that on the balance, the health, diversity and productivity of the environment is not reduced by the regulated activity.

- iv. The environmental burdens of the regulated activity will not disproportionately affect particular stakeholders.
- v. I consider that cumulative emissions are not significant when considered in context of 2020-2021 NT and Australian emissions, which were approximately 14.1 million tonnes and 465 million tonnes respectively.
- vi. I have considered the protection of cultural heritage and am satisfied that conduct of the regulated activity will not impact on preservation of cultural heritage for the benefit of future generations.
- vii. Cultural values relating to sacred sites will be protected through the application of Authority Certificates issued to the interest holder under the *Northern Territory Aboriginal Sacred Sites Act 1989* and measures for reporting on discovery of archaeological sites during activities.
- viii. Accordingly I do not believe that the carrying out of the regulated activity in accordance with the EMP would have an effect contrary to the principle of inter or intra-generational equity.
- e. The principle of sustainable use (s 22 *Environment Protection Act 2019*) requires that natural resources should be used in a manner that is sustainable, prudent, rational, wise and appropriate. In applying this principle, I have considered the following:
  - i. I note the findings of the Scientific Inquiry into Hydraulic Fracturing (HFI) in the NT that states: “... *in the short to medium term, the Australian National Energy Market is likely to require higher levels of flexible, gas-fired generation, which can provide a reliable, low emissions substitute for ageing coal-fired generation, and essential security services to complement variable renewable electricity generation.*”<sup>4</sup>
  - ii. I note the NT Government’s commitment to implementing all the recommendations of the HFI, including working with the Australian Government to seek to ensure that there is no net increase in lifecycle GHG emitted in Australia from any onshore petroleum produced in the NT.
  - iii. The total anticipated water demand for this regulated activity is 3.65 ML, which is approximately 4.6% of the Central Petroleum Mereenie Pty Ltd.’s annual maximum water entitlement of 52.8 ML per annum. Existing licensed groundwater bores will be used to meet the drilling water requirements.
  - iv. No additional groundwater extraction licences are currently required for the regulated activity.
  - v. I note that the EMP has assessed the cumulative impacts of groundwater extraction from the Mereenie Sandstone aquifer and a groundwater extraction licence has been granted (M10001).
  - vi. Accordingly, I am satisfied that the concept of sustainable use of natural resources has been taken into account.
- f. The principle of biological diversity and ecological integrity (s 23 *Environment Protection Act 2019*) requires that biological diversity and ecological integrity should be conserved and maintained. I have applied this principle as follows:

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<sup>4</sup> Refer section 9.7.4 of the *Scientific Inquiry into Hydraulic Fracturing in the Northern Territory*; p 233. Available at: <https://frackinginquiry.nt.gov.au/inquiry-reports?a=494286>



- i. I believe the information I have regarding the existing biodiversity and ecosystems that are to be affected by the regulated activity; the effects that are likely; and the mitigation measures reasonably available, is sufficient.
  - ii. The regulated activity poses a low risk to the ecosystem within the MacDonnell Ranges bioregion. Given the relatively small area of impact (approximately 5.45 ha), and the very large area of similar habitat within the region, the regulated activity does not pose a significant risk to any regional populations of threatened species.
  - iii. The Department of Environment, Parks and Water Security's Flora and Fauna Division is satisfied that the regulated activity does not pose a significant risk to threatened species, important habitats or significant vegetation types.
  - iv. The mitigation controls identified in the EMP are adequate to reduce risks associated with potential impacts on biodiversity, such as noise, vehicle strike, dust, erosion and spills to be as low as reasonably practicable.
  - v. The EMP outlines measures to minimise impacts on environmental values, including the management of threatening processes such as weeds and fire. Where relevant, management measures are consistent with the requirements of the Code, the NT Land Clearing Guidelines and Weed Management Planning Guideline: Onshore Petroleum Projects. Specific precautions to ensure interaction with wildlife is avoided are included in the EMP, including inspections for fauna presence, fauna ladders, on sumps and pits, fencing around well sites, use of speed limits on access tracks, and daily checks of infrastructure.
  - vi. The conservation of biological diversity and ecological integrity is vital to the achievement of ecologically sustainable development. Given the fundamental nature of this consideration, I have given importance to the conservation of biological diversity and ecological integrity in weighing whether I am satisfied the approval criterion in reg 9(1)(c) have been met.
  - vii. It is often the case that the conservation of biological diversity and ecological integrity is vital to the achievement of ecologically sustainable development. By their nature, ecosystems are complex and interdependent systems; this needs to be considered in relation to what preserves their integrity. Biological diversity also represents a wealth of potential natural resources that may provide options for present and future generations. I have born this in mind when considering the weight to be given to the evidence before me regarding the potential impacts of the regulated activity on biodiversity and ecological integrity.
  - viii. The measures to conserve and maintain biological diversity and ecological integrity in the EMP are appropriate, given the nature and scale of the regulated activity.
  - ix. If carried out in accordance with the EMP, the risks of the regulated activity to the conservation of biological diversity and ecological integrity are considered to be mitigated to an acceptable level.
- g. The principle of improved valuation, pricing and incentive mechanisms (s 24 *Environment Protection Act 2019*) requires that environmental factors should be included in the valuation of assets and services, through application of the 'polluter pays' principles, consideration of full life cycle costs of providing goods and services, and pursuing environmental goals in the most cost-effective way. I have applied the principle as follows:

- i. The pollution and waste that will be generated by the regulated activity in the general course of its operation includes: emissions (e.g. fuel and venting), liquid waste (e.g. sewage, greywater and drilling fluids), solid waste and hazardous waste (e.g. drill cuttings, batteries, spill contaminated material, domestic waste)
  - ii. I am satisfied that this pollution and waste will be disposed of by the interest holder in accordance with the *Public and Environmental Health Act 2011*, the *Waste Management and Pollution Control Act 1998* and the Code at its own cost as set out in Table 10 and section 3.9 of the EMP.
  - iii. In relation to the risks of a pollution event that may occur unintentionally during the operations of the regulated activity, I consider that the following measures are in place to ensure the interest holder bears the costs of containment, avoidance, and abatement:
    - (1) impacts and risks associated with contamination of soil, surface water and groundwater, which are managed through meeting mandated requirements for well integrity and clean-up of spills and leaks and remediation of impacted soil
    - (2) impacts and risks associated with loss of containment of wastewater, which are managed through containment measures.
  - iv. In relation to full life cycle costs, it is expected that the regulated activity will have a life cycle of less than 6 months plus ongoing rehabilitation, and at the end of this cycle the interest holder will take action to decommission the wells or transfer them to the Mereenie Oil and Gas Field EMP (CTP6-4) where any residual pollution and waste not dealt with by this EMP (CTP7-5) will be managed in accordance with the CTP6-4 prior to the return of the environmental securities held under this EMP.
  - v. All interest holders are required to provide an environmental security related to the activities in an EMP, prior to commencement of the activities. It must be sufficient to allow third party intervention for the rehabilitation and remediation should it be required, ensuring the interest holder bears the costs of pollution.
  - vi. With these measures in place, I am satisfied that the EMP that environmental costs are not left as externalities to be paid for by Territory taxpayers or the local community. They will be fairly paid for by those who stand to benefit from the regulated activity, such as the interest holder, and consumers who choose to purchase the interest holder's products. To the extent there are some costs to the Territory, I am satisfied that this is appropriate given the broader economic benefits.
  - vii. In relation to options to pursue environmental goals in relation to the regulated activity, I have taken into account that these goals should be pursued in the most cost-effective way. This is the case with regard to the conditions set for liners and hydrotesting of flare pits. The conditions reflect a balanced approach to managing the risks of contamination in a cost effective and reasonable manner.
  - viii. I believe approval of the EMP with the conditions I have imposed is consistent with the principle of improved valuation, pricing and incentive mechanisms.
- h. The NT EPA did not require the EMP to be referred under the *Environment Protection Act 2019*, as the regulated activity does not have the potential to cause a significant impact on the environment.

reg 9(3)



- i. The NT EPA reviewed the EMP for the regulated activity against the approval criteria in regulations 9(3)(a) and 9(3)(c) of the Regulations and other matters the NT EPA considered relevant, and has provided advice about the EMP.
- i. The NT EPA has provided the following in relation to the regulated activity and the EMP:
  - i. In accordance with my request under s 29B of the NT EPA Act, the NT EPA reviewed the EMP against the approval criteria in regulation 9(1) of the Regulations and other matters the NT EPA considered relevant, and has provided advice about the EMP. Relevantly:
    - (1) The NT EPA recommended that should the EMP be approved, it be subject to seven environmental outcomes. The NT EPA's recommendations have informed the conditions of this approval. All conditions are outlined in section 1 (2) of this Approval Notice.
    - (2) The NT EPA concluded that the EMP for the regulated activity, subject to the recommended approval conditions, is appropriate for the nature and scale of the regulated activity and demonstrates that the regulated activity can be carried out in a manner that environmental impacts and environmental risks of the activity will be reduced to a level that is as low as reasonably practical and acceptable.
  - ii. I have considered the NT EPA's advice and recommendations and these have been incorporated where relevant into this statement of reasons and the conditions in the Approval Notice.
- j. The existing environment along with its particular values and sensitivities is appropriately identified in section 4 of the EMP, and to the extent I do not agree or there is some uncertainty, I have imposed conditions to address the relevant risk or risks. reg 9(1)(c)
- k. I agree with the risk register set out in Appendix E of the EMP, and to the extent I do not agree I have imposed a condition or conditions to address the relevant risk or risks.
- l. The interest holder's risk assessment is applicable to activities in all seasons and the outcomes are reflected in the EMP that includes, for example; Wet Season Management Plan (section 7.1/Table 31); Erosion and Sediment Control Plan (section 7.2/Table 32); Weed Management Plan (section 7.3/Table 33); Bushfire Management Plan (section 7.4/Table 34); Rehabilitation Management Plan (section 7.5/Table 35); Wastewater Management Plan (section 7.6/Table 36); Spill Management Plan (section 7.7/Table 37); Methane Emissions Management Plan (section 7.8/Table 38); emergency response plan (Appendix F) and Drilling Fluid Chemicals (Table 11). This is consistent with the requirements of the Code that allows for the regulated activity to occur in the wet season months when contingency planning is provided and minimum freeboard in wastewater infrastructure is maintained.
- m. The anticipated environmental impacts are appropriately identified in section 6 and Appendix E of the EMP. The regulated activity are a continuation of current activities and cumulative effects have been identified and assessed. In EMPs for subsequent stages (if they proceed) the interest holder will need to continue to address cumulative effects.
- n. The EMP demonstrates how the interest holder will comply with relevant requirements of the Code in undertaking these regulated activity. This includes reference to applicable Australian and international standards that have been adopted for regulated activity, as applicable. The EMP cross references relevant

sections of the Code that apply to the mitigation and management measures to enable the reviewer to identify and confirm that the proposed activities comply with the Code, as applicable. The EMP provides water management commitments and management plans that meet the requirements of the Code.

- o. I am satisfied that the interest holder has conducted ongoing stakeholder engagement in accordance with the Regulations. The EMP provides details of stakeholder engagement that meets regulation 7 and Schedule 1, Clause 9 of the Regulations (Section 5 and Appendix D). Stakeholder engagement records (Appendix C) demonstrate that stakeholders did not raise objections about environmental impacts of the proposed activity that required specific changes from the interest holder. The EMP provides details how written feedback and input from stakeholders as part of future engagement will be managed. The risk assessment in the EMP details the potential environmental impacts of the activity and proposed environmental outcomes to manage impacts on social and cultural surroundings.
- p. I recognise the importance the community places on the protection of water, human health management of chemicals and waste, stakeholder engagement, social impacts and regulation and compliance. The EMP appropriately identifies the risks and potential impacts from the regulated activity and commits to mitigation and management measures to address these risks and potential impacts.
- q. There are no environmental impacts or environmental risks relating to the proposed regulated activity that I consider to be unacceptable.
- r. Overall, having regard to the above, I am satisfied that the EMP is appropriate for the nature and scale of the activity, and demonstrates that the regulated activity is to be carried out in manner by which the environmental impacts and environmental risks are reduced to a level that is:
  - i. as low as reasonably practicable; and
  - ii. acceptable.