

BEETALOO W-1 EXPLORATION PERMIT (EP) 117 EMP (ORI8-2)

Annual Environmental Performance Report

Tamboran B2 Pty Ltd



Document Details

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Interest holder details Tamboran B2 Pty Ltd ABN 42 105 431 525				
Operator details	Tamboran Resources Ltd 110-112 The Corso Manly NSW 2095			
Approved by	Matt Kernke: Environment and Approvals Manager			
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Signature and certification

	I hereby declare that the information provided in this annual environment performance report and accompanying documents is to the best of my/our knowledge, true and correct.				
Signature	Matt Kernke				
Name	Matt Kernke				
Position	Environment and Approvals Manager				
Date	21 January 2023				



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1. Introduction

The Northern Territory (NT) Petroleum (Environment) Regulations 2016 (the Regulations) include a requirement for the interest holder to provide a report to the Minister on an annual basis that outlines the environmental performance of regulated activities. The Annual Environment Performance Report (AEPR) must include sufficient information to allow the Minister to assess whether the interest holder has met the environmental outcomes and environmental performance standards included in the approved Environment Management Plan (EMP). The report is to consider information required to be recorded, monitored or reported under the Regulations and any other law in force in the NT related to conduct of the regulated activity.

This AEPR covers the regulated activities approved under the *Beetaloo W-1 Exploration Permit (EP) 117 EMP (ORI8-2)*, approved 21 October 2021. The AEPR covers the reporting period of the 22 October 2021 – 21 October 2022, as reported by Tamboran B2 Pty Ltd (Tamboran).

1.1 Acronyms and abbreviations

Table 1 Summary of acronyms and abbreviations

Acronym	Definition		
AAPA	Aboriginal Areas Protection Authority		
AEPR	Annual Environment Performance Report		
CMS	Compliance management system		
Code	Code of Practice: Onshore Petroleum Activities in the Northern Territory		
DEPWS	Department of Environment, Parks and Water Security		
DITT	Department of Industry, Tourism and Trade		
EMP	EMP Environment management plan		
FTP File Transfer Protocol			
ha	hectare		
NT	Northern Territory		
Regulations	Petroleum (Environment) Regulations 2016		
RMP	Rehabilitation management plan		

1.2 Background

The regulated activities that have been assessed under this AEPR are those covered under the *Beetaloo W-1 Exploration Permit (EP) 117 EMP*, approved 21 October 2021. There were no regulated activities undertaken during the reporting period 22 October 2021 – 21 October 2022.

Location of the regulated activities is provided in Figure 1.

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¹ Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11.



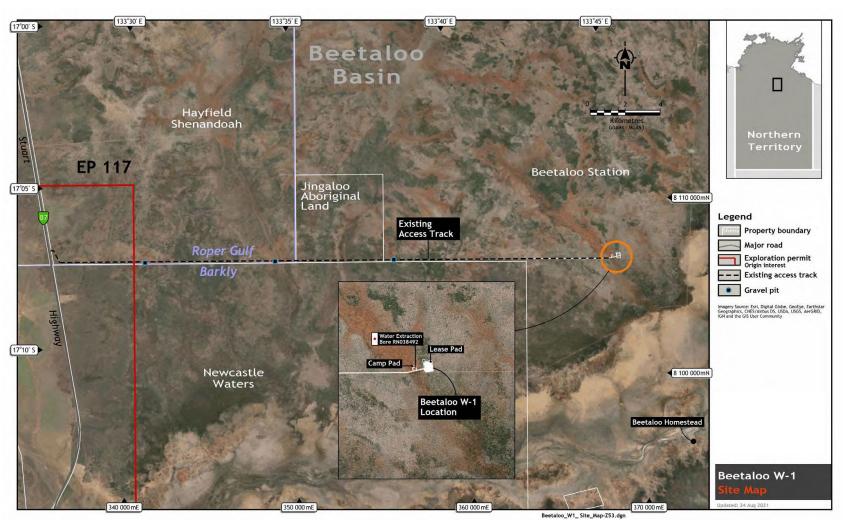


Figure 1 Location of the Beetaloo W-1 well and proposed regulated activities on Beetaloo W site (EP 117)

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1.3 Contents of performance report

This AEPR describes the environmental performance of the interest holder by evaluation of the following:

- 1. Compliance with Ministerial approval conditions, for the EMP.
- 2. Compliance with each environmental outcome and environmental performance standard within the approved EMP.
- 3. Compliance with reporting requirements in accordance with the Code and Regulations.
- 4. All recordable and reportable incidents, including root cause analysis and related corrective actions to prevent re-occurrence.
- 5. Findings of all regulatory inspections and audits and related actions to address any findings.

1.4 Assessment of compliance

Table 2 shows the compliance status indicators used in this AEPR which have been defined by the Department of Environment, Parks and Water Security (DEPWS).

Table 2 Compliance descriptors

Indicator	Description
Compliant	Compliant with requirement for entire 12-month reporting period
Not Compliant	Interest holder did not comply with the requirement during the reporting period
Not Applicable	Requirement not applicable during the reporting period

1.5 Evidence of compliance

The following sources of evidence are used to demonstrate compliance:

- 1. Internal monitoring of compliance by the interest holder.
- 2. Outcomes from regulatory inspection/s conducted by the DEPWS, Petroleum Operations.
- 3. Recordable and reportable incident reports submitted to DEPWS Petroleum Operations.
- 4. Reports provided to DEPWS, DITT and other government agencies.

2. Demonstration of Compliance

2.1 Ministerial condition compliance

Table 3 demonstrates [Tamboran's] compliance with Ministerial EMP approval conditions.



Table 3 Ministerial condition summary table

No	Ministerial condition	Compliance Status	Evidence
1	The interest holder must submit to the Department of Environment, Parks and Water Security (DEPWS), via Onshoregas.DEPWS@nt.gov.au the following: i. an updated timetable for the regulated activity on the last day of each quarter (being 31 March, 30 June, 30 September and 31 December each year) that identifies activities completed in the current quarter and regulated activities scheduled for the next quarter including duration.	Compliant	Monthly reports were provided to DEPWS on the following dates:
2	Condition 2: To support clause C.7.2 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory (Code), all accidental releases of liquid containment or hazardous chemical must be recorded in a spill register as soon as practicable. The spill register and geospatial files specifying the location of the spill must be submitted to DEPWS via Onshoregas.DEPWS@nt.gov.au with the Annual Environment Performance Report each year while the EMP is in force. The register must include: i. location, source and volume of the spill ii. volume of impacted soil removed for appropriate disposal and the depth of any associated excavations iii. the corrective actions taken or proposed to be taken to prevent recurrence of an incident of a similar nature appropriate to the nature of the spill iv. GPS coordinates of the location of the spill.	Not applicable	No regulated activities were undertaken at Beetaloo W-1 during the 12-month period, 22 October 2021 – 21 October 2022.



No	Ministerial condition	Compliance Status	Evidence
	The interest holder must provide an annual report to DEPWS on its environmental performance, in accordance with item 11 (1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016.		The interest holder has prepared this AEPR for the reporting period 22 October 2021 – 21 October 2022.
3	i. the first report must cover the 12-month period from the date of the approval, and be provided within three calendar months of the end of the reporting period.	Compliant	
	ii. the annual environment performance report must align with the template prepared by DEPWS for this purpose and be provided each year until such time a notification is made to the Minister under regulation 14 that the activity is complete, or until the EMP is revised and re-approved.		
4	To support clause A.3.9 of the Code and the EMP rehabilitation plan, the interest holder is to provide an updated rehabilitation plan to DEPWS via Onshoregas.DEPWS@nt.gov.au, concurrent with submission of the annual environment performance report. The updated rehabilitation plan must be consistent with the DEPWS Rehabilitation Plan Guidance for Surface Disturbance and include: i. auditable success criteria for rehabilitation and corrective actions in the event rehabilitation monitoring shows the success criteria are not achieved ii. an annual summary of progressive rehabilitation activities where applicable iii. be accompanied by geospatial files of all surface disturbance areas including those under rehabilitation. Progressive rehabilitation of significantly disturbed land, not required for the ongoing conduct of future activities, must commence as soon as practicable but no longer than 12 months following cessation of the regulated activity at each significantly disturbed location. The rehabilitation plan must be implemented until the defined success criteria for rehabilitation are achieved	Not applicable	 No rehabilitation activities were undertaken at Beetaloo W-1 during the 12-month period, 22 October 2021 – 21 October 2022. The RMP titled: Exploration Permit 117 Rehabilitation Management Plan Rev 1.0 Beetaloo W-1 Lease, which was approved by the Minister on 21 October 2021 remains current. Surface disturbance areas and subsequent DXF files have not changed from those provided with EMP approved by the Minister on 21 October 2021.



No	Ministerial condition	Compliance Status	Evidence
	and demonstrated in a final rehabilitation report to be provided to DEPWS along with a regulation 14 notice.		
5	In support of clause D.6.2 of the Code, an emissions report must be provided to DEPWS by 30 September each year, via Onshoregas.DEPWS@nt.gov.au, which summarises actual annual greenhouse gas emissions reported under the Commonwealth National Greenhouse and Energy Reporting Act 2007 versus predicted emissions in the EMP.¹ The emissions report should include: i. a summary of regulated activities conducted which have contributed to greenhouse gas emissions ii. explanation of differences between actual and predicted emissions with reference to all parts of the regulated activity with potential to create greenhouse gas emissions.	Not applicable	No regulated activities were undertaken at Beetaloo W-1 during the 12-month period, 22 October 2021 – 21 October 2022.

¹ Clause D.6.2(b) of the Code requires annual actual greenhouse gas emissions to be provided even where emissions are below the NGERs threshold of 25 ktCO₂-e for scope 1 and scope 2 emissions reporting.



2.2 Environmental outcomes and performance standards

Table 4 provides a systematic overview of compliance with the environmental outcomes and environmental performance standards within the approved EMP.

Table 4 Environmental outcome and performance standard compliance summary

#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
1		No releases of contaminants (chemicals, wastes or liquid hydrocarbons) outside of [Tamboran's] lease pad	Weekly site inspections completed during operations confirm no releases of chemicals, hydrocarbons and wastes outside of [Tamboran's] lease disturbance area	N/A	No activities were completed during the reporting period
2	No significant impact to the ecological function and productivity of soils surrounding Beetaloo W, as a result of [Tamboran's] exploration activities	No reportable spills resulting from [Tamboran's] exploration activities	Weekly site inspections during operations confirm no reportable spills Zero reportable incidents resulting from chemical or waste transportation accidents	N/A	No activities were completed during the reporting period
3		Erosion and sediment control in place and working effectively	6-monthly site stability inspections confirm ESC in place and working effectively Evidence of maintenance performed on all material erosion and sediment control events	Compliant	Routine site inspections completed- no material erosion identified.
4	No significant impact on surface water quality as	During operations, no off-site release of contaminants from	All stormwater discharges from bunds monitored by operators	N/A	No activities were completed during the reporting period



#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
	a result of [Tamboran's] exploration activities	chemical, hydrocarbon and waste storage areas	prior to release, with results confirm stormwater is within the approved limits listed in Table 9		
5		No reportable spill, including offsite releases of contaminants resulting from [Tamboran's] exploration activities	Weekly site inspections completed during operations confirm no releases of chemicals, hydrocarbons and wastes outside of the Beetaloo W-1 site	N/A	No activities were completed during the reporting period
6		No reportable spill, including offsite releases of contaminants resulting from [Tamboran's] exploration activities	All material erosion and sediment control events are rectified as soon practicable upon identification	Compliant	Routine site inspections completed- no material erosion identified.
7	No material changes in groundwater quantity and quality that impact on environmental or pastoral users.	No groundwater extraction above the approved WEL level.	Total groundwater extraction volume below the water extraction level (WEL) of 175 ML/year	N/A	No groundwater take has occurred during the reporting period
8	No significant impact to high valued habitats and threatened flora and fauna as a result of	No releases of contaminants off the lease into the surrounding vegetation	Weekly site inspections during operations confirm no off-site releases of chemicals or fuels etc.	N/A	No activities were completed during the reporting period
9	[Tamboran's] exploration activities	No uncontrolled bushfires caused by [Tamboran's] exploration activities	Zero reported incidents of uncontrolled bushfire caused by [Tamboran's] activities	N/A	No activities were completed during the reporting period



#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
10		Weed surveys completed on all [Tamboran] disturbed areas	6-monthly pre- and post- wet season weed surveys completed on all [Tamboran] controlled disturbed areas	Compliant	Routine site inspections completed- no weed infections identified
11		Year-on-year decline in the size and density of all weed infestations introduced as a result of [Tamboran's] activities	Annual report demonstrates weed infestation size and density of weed outbreaks introduced by [Tamboran's] activities are reducing each year	Compliant	Routine site inspections completed- no weed infections identified
12	No significant impact on air	Venting to be eliminated as far as reasonably practicable	Daily reports confirm the absence of cold venting	N/A	No activities were completed during the reporting period
13	quality and no excess greenhouse gas emissions as a result of [Tamboran's]	All greenhouse gasses reporting in accordance with NGERS requirements	All emissions related data (fuel use, flaring volumes etc.) reported in accordance with NGERS requirements	N/A	No activities were completed during the reporting period
14	exploration activities	All leaks detected and repaired in accordance with code of practice	6-monthly leak detection program completed on surface equipment. Minor leaks rectified as per Code of Practice within 30-days A significant leak is repaired as per the Code of Practice within 72-hours	Compliant	6 monthly leak detection completed and no leaks identified
15	No significant negative impacts to the community as	All valid community complaints of nuisance investigated and resolved	All valid community complaints responded to within 24-hours with actions to remedy	N/A	No complaints received during the reporting period



#	Environmental outcomes	Environmental Performance Standard	Measurement Criteria	Compliance	Evidence
	a result of [Tamboran's] exploration activities		nuisance implemented as soon as practicable (depending on the nature of the complaint)		
16		>60% of addressable spend to be from NT businesses i.e. 60% of services or material that can be provided by NT businesses are provided by NT business.	Project expenditure data	Compliant	All services (weed inspections, site inspections etc.) completed by local businesses

¹Addressable spend is defined as a service or material that can be reasonably provided by an NT business at similar quality, timeliness and cost.



2.3 **Mandatory reporting requirements**

Table 5 demonstrates compliance with reporting requirements in the Code and interest holder's compliance with reporting requirements under the Regulations, schedule 1, item 11(2) – i.e. that all information to be recorded, monitored or reported has been provided. Where relevant, Tamboran has also confirmed that all records, monitoring or required reporting under the Regulations² has been provided to DEPWS or the relevant NTG agency.

Table 5 Summary of mandatory reporting requirements

#	Reference	Requirement	Compliance Status	Evidence
1	Code A.3.5	Geospatial information depicting areas cleared is to be provided to the Minister.	Compliant	Beetaloo W 1 is an existing site, with spatial file submitted as a part of the EMP application.
2	Code A.3.6 (b)	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	Compliant	 Weed management plan developed, with 6 monthly weed monitoring completed. Weed management plan submitted to DEPWS 15/11/2018 (NB: Annual weed monitoring report for 2021 – 2022 was submitted to DEPWS on 17 November 2022)
3	Code A.3.7(a)vi	The fire management plan developed as part of the EMP must provide for annual fire mapping to monitor changes to fire frequency in the relevant areas.	Compliant	Fire management plan implemented. (NB: Annual fire mapping was provided to DEPWS on the 30 September 2022)
4	Code A.3.9(c) Code A.3.9(e)	The rehabilitation plan developed as part of the EMP requires progressive rehabilitation of significantly disturbed land which is required to	Not Applicable	The rehabilitation requirements are not applicable as all sites remain operational, with rehabilitation activities not undertaken to date.

² Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11(2).



#	Reference	Requirement	Compliance Status	Evidence
		commence no longer than 12 months following the cessation of activities on the land. It also requires regular maintenance and annual monitoring of rehabilitated areas.		
5	Code B.4.13.2(c)	As a minimum, the following must be recorded and reported for each stage (where a stage in this context means all fluids pumped at a particular depth interval): a) total volume of hydraulic fracturing fluid pumped, b) quality of water used (tested for analytes in section C.8 of this Code. Analyses do not need to be repeated if the same water source is used for multiple stages) and typical and maximum concentrations of chemicals or other substances used.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
6	Code B.4.13.2(k)iv	Where venting is the only technically feasible option for managing produced gas, the technical	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.



#	Reference	Requirement	Compliance Status	Evidence
		considerations preventing the use of the recovered gas must be recorded and included in the operator's annual report.		
7	Code B.4.14.2(c)	All new barriers or new well operating envelopes must be verified and clearly documented and reported by submission of an updated well barrier integrity validation (WBIV) report to DPIR.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
8	Code B.4.15.2(j)	Complete and accurate records of the entire decommissioning procedure must be kept, with these records submitted as part of the legislative reporting requirements for the decommissioning of petroleum wells.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
9	Code B.4.17.2(d)	Any guidelines published by the Northern Territory Government from time to time relating to reporting and data submission, and groundwater monitoring data standards must be followed.	Not Applicable	 Well was drilled before the NT Code of Practice or Preliminary Guideline Stimulation is not proposed for this activity.
10	Code C.3(e)	The components of the wastewater management framework, include:	Not Applicable	 No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.



#	Reference	Requirement	Compliance Status	Evidence
		Monitor, manage and report in accordance with the Wastewater Management Plan and Spill Management Plan.		
11	Code C.6.1(d)	Wastewater tracking documentation must be reported to the Minister at least annually in accordance with the framework provided in the EMP.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
12	Code C.7.1(d)ii	Wastewater Management Plan must include a program for monitoring and reporting against the effectiveness of the measures for the mitigation of interaction with wildlife, stock and human receptors with wastewater.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
13	Code D.4.3.2(f)	A written report detailing the levels of methane measured, the duration of the unusual readings and the results of the investigation (including remedial actions) must be submitted within one month of the significantly higher-level methane event being detected.	Not Applicable	This condition is associated with a larger field development program.



#	Reference	Requirement	Compliance Status	Evidence
14	Code D.5.9.2(c)	Emissions from exploration, well construction (including during flowback) and workovers must be measured and reports submitted.	Not Applicable	No hydraulic fracture stimulation or well testing activities are approved under this EMP.
15	Code D.5.9.3(a)	Where natural gas is vented or flared at a gas processing or other downstream facility, emissions must be estimated and reported.	Not Applicable	No hydraulic fracture stimulation or well testing activities are approved under this EMP.
16	Code D.6.2(a)	Reports of baseline assessments must be submitted at the conclusion of each field campaign.	Not Applicable	CSIRO completed baseline assessments through DITT.
17	Code D.6.2(b)	Emissions reporting must be in accordance with Section D.5.6. Emissions associated with venting and flaring as described in Section D.5.9 must be provided separately to the Northern Territory Government in accordance with this Code.	Compliant	Emission reporting, as per section 5.6 was provided on the 30 September 2022
18	Regulations Reg 14	A current EMP remains in force until the interest holder notifies the Minister the activity is no longer being carried out	Compliant	The EMP is still in force and has approximately 3 years remaining before the next review



#	Reference	Requirement	Compliance Status	Evidence
		and all of the environmental outcomes and obligations under the plan have been met, and the Minister advises the interest holder the notice is accepted and the plan ceases to be in force.		
19	Regulations Reg 33	DEPWS is notified of reportable incidents within 2 hours of the interest holder becoming aware of the incident, or within 2 hours of the incident occurring. A written report must be provided within 24 hours if the initial report was made orally.	Compliant	No reportable incidents have been recorded.
20	Regulations Reg 34	Reports on reportable incidents are to be provided to DEPWS as soon as practicable and within 72 hours of the event occurring. A final report must be provided to DEPWS within 30 days after remediation/clean-up of the affected area.	Compliant	No reportable incidents have been recorded.
21	Regulations Reg 35	A written report of all recordable incidents must be provided to DEPWS not later than 15 days	Compliant	Quarterly recordable incidents reports were provided as follows: Q4 2020 report provided 14/12/2021 Q1 2021 report provided 14/04/2022



#	Reference	Requirement	Compliance Status	Evidence
		after the 90 day reporting period (unless otherwise agreed).		 Q2 2021 report provided 01/07/2022 Q3 2021 report provided 14/10/2022
22	Regulations Reg 37A	A report about flowback fluid from hydraulic fracturing must be provided to the Minister within 6 months of the flowback occurring.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
23	Regulations Reg 37B	A report about produced water from hydraulic fracturing must be provided to the Minister within 6 months of the produced water being extracted.	Not Applicable	No exploration well drilling, hydraulic fracturing or well testing activities are approved under this EMP.
24	Regulations Schedule 1, item 9(2)	Interest holders are required to conduct future engagement with stakeholders, in accordance with the description in the EMP.	Compliant	Stakeholder engagement with immediately affected parties is ongoing, with the frequency of the engagement dependent on the level of activity being completed onsite at a given point of time
25	Regulations Schedule 1, item 12	Interest holder must notify the Minister, occupier of the land and owner of the land on which the activity is to be carried out before commencement of activity.	Not Applicable	No material regulated activities completed
26	Environment Protection Act 2019 (NT) div 8	Duty to notify the NT EPA as soon as practicable but within 24 hours of any incident which occurs	Compliant	No incidents which could cause or threaten to cause material or significant environmental harm occurred during reporting period.



#	Reference	Requirement	Compliance Status	Evidence
		which causes or threatens to cause material or significant environmental harm		
27	Waste Management and Pollution Control Act 1998 (NT) s 14	Duty to notify the NT EPA as soon as practicable but within 24 hours of any incident which occurs which causes or threatens to cause pollution resulting in material or significant environmental harm	Compliant	No incidents which could cause or threaten to cause material or significant environmental harm occurred during reporting period.



3. Summary of Compliance

3.1 Overview of compliance

Table 6 provides a summary of the results of the compliance assessment against the EMP.

Table 6 Beetaloo W-1 EP117 EMP compliance summary

Compliance Indicator	Number	Percentage
Compliant	19	100%
Not Compliant	0	0%
Not Applicable	29	N/A

3.2 Overview of items found not compliant

The following sections describe:

- the specific compliance requirements not met for the reporting period
- an analysis of the possible potential environmental harm or impact to environmental values resulting from non-compliance, using multiple lines of evidence
- a summary of the corrective actions already implemented, and further actions still required, as
 applicable, to ensure compliance is fully achieved in the future.

3.2.1 Ministerial approval conditions

3.2.1.1 Description

No non-compliances with Ministerial conditions were observed during the reporting period.

3.2.2 Environmental performance standards

3.2.2.1 Description

No non-compliance with an environmental performance standard was recorded during the reporting period.

3.2.3 Regulatory reporting

3.2.3.1 Description

No non-compliance with regulatory reporting requirements were recorded during the period.

3.3 Application of Lessons Learned Across Tamboran's Onshore Interests

Due to the limited nature of the activities, no material lessons learnt were generated during the reporting period.