

BEETALOO KALALA S EMP EP 98 (ORI9-2)

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
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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	
Name	Matt Kernke
Position	Environment and Approvals Manager
Date	22 February 2023

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1. Introduction

The Northern Territory (NT) Petroleum (Environment) Regulations 2016 (the Regulations) include a requirement¹ 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 Kalala S EP 98 EMP (ORI9-2)*, approved 21 February 2022. The AEPR covers the reporting period of the 22 February 2022 – 21 February 2023, 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	Environment management plan
FTP	File Transfer Protocol
ha	hectare
NT	Northern Territory
Regulations	Petroleum (Environment) Regulations 2016

1.2 Background

The regulated activities that have been assessed under this AEPR are those covered under the *Beetaloo Kalala S EP 98 EMP*, approved 21 February 2022. No activities have been undertaken during the reporting period; however, activities proposed under the EMP include:

- civil maintenance of Kalala S site including erosion and sediment controls (ESC) on the access tracks, lease pad and camp pad
- operation of a temporary camp, offices and equipment storage areas
- construction of up to four groundwater monitoring/extraction bores to facilitate future exploration activities
- maintenance and monitoring of infrastructure on the Kalala S site, including well interventions, work overs, completion and general well maintenance and diagnostic activities
- routine reservoir testing and data acquisition using reservoir evaluation tools (and other methods)
- suspension and/or abandonment of the Kalala S-1 well
- rehabilitation of the site upon completion of exploration activities

The location of the regulated activities is provided in figure 1.

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

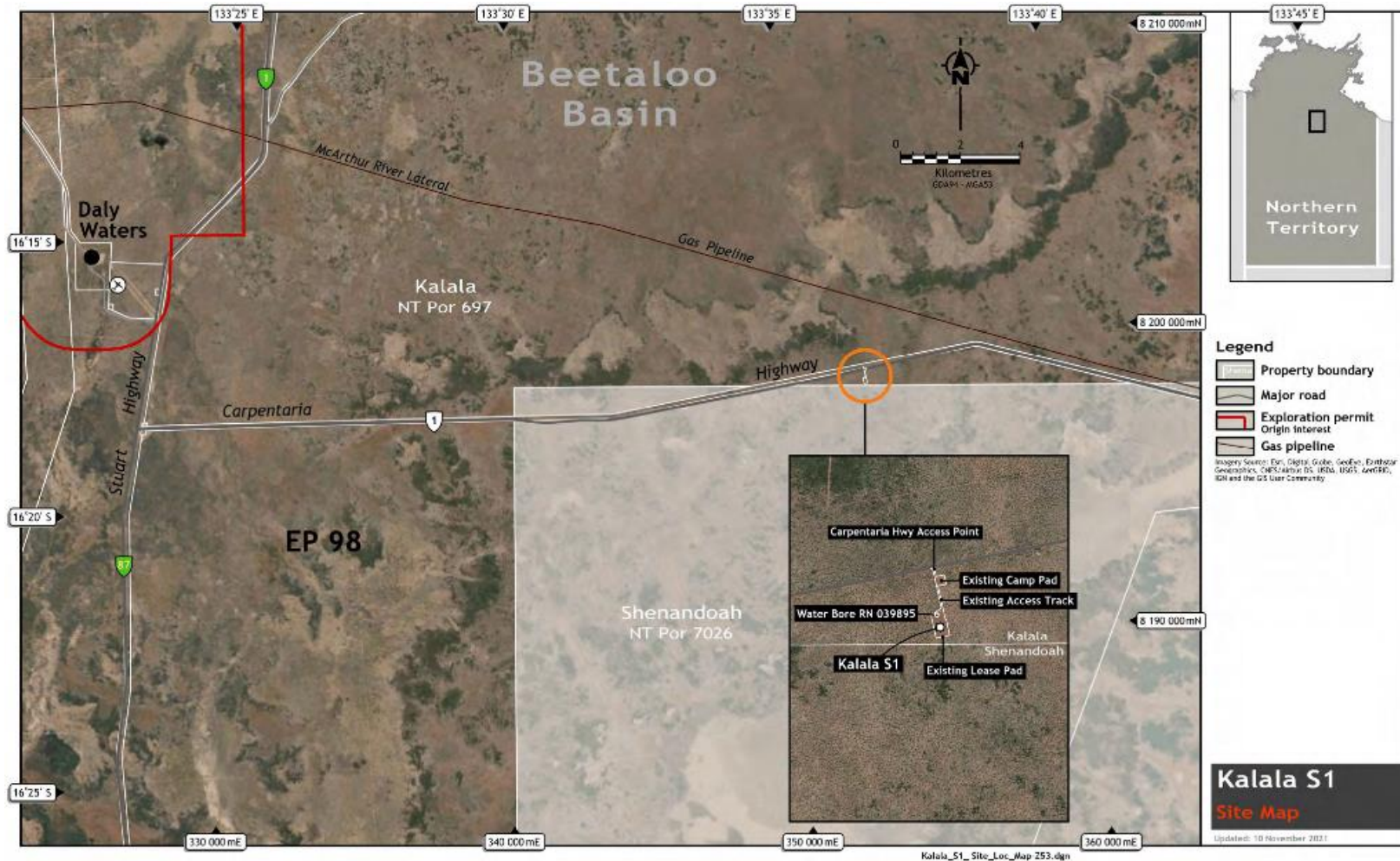


Figure 1 Location of the Kalala S-1 well and proposed regulated activities on Kalala S site

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	<p>The interest holder must provide an annual report to the Department of Environment, Parks and Water Security (the Department), via Onshoregas.DEPWS@nt.gov.au, on its environmental performance, in accordance with item 11(1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016 (NT). With respect to the reports required to be submitted in accordance with item 11(1)(b) in schedule 1 of the Petroleum (Environment) Regulations 2016 (NT):</p> <ul style="list-style-type: none"> i. the first report must cover the 12 month period from the date of the approval, and be provided within 3 calendar months of the end of the reporting period. ii. the annual environment performance report must align with the template and Guideline prepared by the Department 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. 	Compliant	The interest holder has prepared this AEPR for the reporting period 22 February 2022 – 21 February 2023, inclusive.

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	Compliance	Evidence
1	Soils No significant impact to the ecological function and productivity of soils surrounding Kalala S as a result of [the] exploration activities	<ul style="list-style-type: none"> No releases of contaminants (chemicals, wastes or liquid hydrocarbons) outside of [the] lease pad 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
2		<ul style="list-style-type: none"> No reportable spills resulting from [the] exploration activities 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
3			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
4		<ul style="list-style-type: none"> Erosion and sediment control in place and working effectively 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
5			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
6	Surface water No significant impact on surface water quality as a result of [the] exploration activities	<ul style="list-style-type: none"> No off-site release of contaminants from chemical, hydrocarbon and waste storage areas 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
7		<ul style="list-style-type: none"> No reportable spill, including offsite releases of contaminants resulting from [the] exploration activities 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
8		<ul style="list-style-type: none"> Erosion and sediment control in place and working effectively. 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
9	Groundwater No material changes in groundwater quantity and quality that impact on environmental or pastoral users	<ul style="list-style-type: none"> No groundwater extraction above the approved WEL level. 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
10			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
11	Ecology No significant impact to high valued habitats and threatened flora and fauna as a result of [the] exploration activities	<ul style="list-style-type: none"> No releases of contaminants off the lease into the surrounding vegetation 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
12		<ul style="list-style-type: none"> Weed surveys completed on all [the] disturbed areas 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
13		<ul style="list-style-type: none"> Year-on-year decline in the size and density of all weed infestations introduced as a result of [the] activities 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
14		<ul style="list-style-type: none"> Zero onsite spills of wastewater. 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
15	Air quality and GHG emissions No significant impact on air quality and no excess greenhouse gas emissions as a result of [the] exploration activities	<ul style="list-style-type: none"> All greenhouse gasses reporting in accordance with NGERs requirements 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
16		<ul style="list-style-type: none"> All leaks detected and repaired in accordance with code of practice 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
17			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
18			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
19	Lighting, noise, vibration and visual amenity No significant negative impacts to the community as a result of [the] exploration activities	<ul style="list-style-type: none"> All valid community complaints of nuisance investigated and resolved 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
20		<ul style="list-style-type: none"> >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. 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
21	Cultural heritage No significant impact on sacred sites and environmental values as a result of [the] exploration activities	<ul style="list-style-type: none"> No non-compliances with AAPA certificate conditions 	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
22			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

#	Environmental outcomes	Environmental Performance Standard	Compliance	Evidence
23			Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

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.	Not applicable	<ul style="list-style-type: none"> • GIS data of disturbance submitted to DEPWS in accordance with EMP approval. • No activities have occurred on site during the reporting period due to access restrictions.
2	Code A.3.6 (b)	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	Not applicable	<ul style="list-style-type: none"> • A weed management was submitted to DEPWS in accordance with EMP approval. • No activities have occurred on site during the reporting period due to access restrictions.
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.	Not applicable	<ul style="list-style-type: none"> • A fire management plan was submitted to o DEPWS in accordance with EMP approval. • No activities have occurred on site during the reporting period due to access restrictions.
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	Not applicable	<ul style="list-style-type: none"> • A rehabilitation plan was submitted to DEPWS in accordance with EMP approval. • No activities have occurred on site during the reporting period due to access restrictions.

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

#	Reference	Requirement	Compliance Status	Evidence
		to 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)	<p>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):</p> <p>a) total volume of hydraulic fracturing fluid pumped,</p> <p>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</p> <p>c) typical and maximum concentrations of chemicals or other substances used.</p>	Not applicable	<ul style="list-style-type: none"> No exploration well drilling or hydraulic fracturing activities are approved under this EMP. No activities have occurred on site during the reporting period due to access restrictions.
6	Code B.4.13.2(k)iv	Where venting is the only technically feasible option for managing produced gas, the technical considerations preventing the use of the recovered gas must be	Not applicable	<ul style="list-style-type: none"> No exploration well drilling or hydraulic fracturing activities are approved under this EMP. Routine maintenance approved under this EMP may require use of an emergency flare; however, no activities have occurred on site during the reporting period due to access restrictions.

#	Reference	Requirement	Compliance Status	Evidence
		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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
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	<ul style="list-style-type: none"> No groundwater extracted. No activities have occurred on site during the reporting period due to access restrictions.
10	Code C.3(e)	The components of the wastewater management framework, include: Monitor, manage and report in accordance with the	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

#	Reference	Requirement	Compliance Status	Evidence
		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	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
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	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
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	<ul style="list-style-type: none"> This condition is associated with a larger field development program.
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	<ul style="list-style-type: none"> No exploration well drilling or hydraulic fracturing activities are approved under this EMP. Routine maintenance approved under this EMP may require use of an emergency flare; however, no activities have

#	Reference	Requirement	Compliance Status	Evidence
				occurred on site during the reporting period due to access restrictions.
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	<ul style="list-style-type: none"> No exploration well drilling or hydraulic fracturing activities are approved under this EMP. Routine maintenance approved under this EMP may require use of an emergency flare; however, no activities have occurred on site during the reporting period due to access restrictions.
17	Code D.6.2(a)	Reports of baseline assessments must be submitted at the conclusion of each field campaign.	Not applicable	<ul style="list-style-type: none"> CSIRO completed baseline assessments through DITT.
18	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.	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
19	Regulations Reg 14	A current EMP remains in force until the interest holder notifies the Minister the activity is no longer being carried out 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	Compliant	<ul style="list-style-type: none"> The EMP is still in force and has approximately 4 years remaining before the next review.

#	Reference	Requirement	Compliance Status	Evidence
		and the plan ceases to be in force.		
20	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.	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
21	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.	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
22	Regulations Reg 35	A written report of all recordable incidents must be provided to DEPWS not later than 15 days after the 90 day reporting period (unless otherwise agreed).	Compliant	<p>Quarterly recordable incidents reports were provided as follows:</p> <ul style="list-style-type: none"> Q1 2022 report (10 April 22) Q2 2022 report (July 14 22) Q3 2022 report (14 & 17 October 2022) Q4 2022 report (16 January 2023)
23	Regulations Reg 37A	A report about flowback fluid from hydraulic fracturing must be provided to the Minister	Not applicable	<ul style="list-style-type: none"> No exploration well drilling and hydraulic fracturing activities are approved under this EMP.

#	Reference	Requirement	Compliance Status	Evidence
		within 6 months of the flowback occurring.		
24	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	<ul style="list-style-type: none"> No exploration well drilling and hydraulic fracturing activities are approved under this EMP.
25	Regulations Schedule 1, item 9(2)	Interest holders are required to conduct future engagement with stakeholders, in accordance with the description in the EMP.	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
26	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	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
27	<i>Environment Protection Act 2019 (NT) div 8</i>	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 material or significant environmental harm	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.
28	<i>Waste Management and Pollution</i>	Duty to notify the NT EPA as soon as practicable but within 24 hours of any incident which occurs which causes or	Not applicable	<ul style="list-style-type: none"> No activities have occurred on site during the reporting period due to access restrictions.

#	Reference	Requirement	Compliance Status	Evidence
	<i>Control Act 1998</i> (NT) s 14	threatens to cause pollution resulting in material or significant environmental harm		

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 Kalala S EP 98 EMP compliance summary

Compliance Indicator	Number	Percentage
Compliant	3	100%
Not Compliant	0	0%
Not applicable	49	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.