

# Annual Environment Performance Report

*15/02/2022 – 14/02/2023*

*Imperial Oil and Gas Pty Ltd*

*Imperial O & G 2021 Carpentaria 1 Work Program EP187  
(IMP3-4)*

<b>Document title</b>	Annual Environment Performance Report
<b>EMP title</b>	Imperial O&G 2021 Carpentaria 1 Work Program EP187 (IMP3-4)
<b>Exploration Permit/Licence Number</b>	Exploration Permit 187
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<b>Operator details</b>	Imperial Oil & Gas Pty Limited

<b>Signature and Certification</b>	
I certify on behalf of Imperial Oil & Gas Pty Ltd this document is a true and accurate record of performance.	
Signature	
Name, Position	Robin Polson, Chief Financial Officer
Date	14/05/2023

<b>Acronyms / Terms</b>	<b>Definition</b>
AEPR	Annual Environment Performance Report
Code	Code of Practice: Onshore Petroleum Activities in the Northern Territory
DEPWS	Department of Environment, Parks and Water Security (NT)
DITT	Department of Industry, Tourism and Trade (NT)
EMP	Environment Management Plan
EP	Exploration Permit
NT	Northern Territory
Regulations	Petroleum (Environment) Regulations 2016 (NT)

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# 1. Introduction

The Northern Territory (NT) Petroleum (Environment) Regulations 2016 (NT) (the Regulations) require an interest holder to provide a report to the Minister for Environment on an annual basis that outlines the environmental performance of the interest holder<sup>1</sup> (the Annual Environment Performance Report). The report 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 the conduct of the regulated activity.

This Annual Environmental Performance Report (AEPR) outlines the environmental performance of Imperial Oil and Gas Pty Ltd in respect to achieving the environmental outcomes and environmental performance standards, and monitoring, recording, and reporting requirements described within:

- 2021 Carpentaria 1 Work Program Environmental Management Plan EP 187 (IMP3-4), approved on the 15<sup>th</sup> of February 2021. Hereafter referred to as the EMP.

The period covered by this AEPR is from 15<sup>th</sup> February 2022 to 14<sup>th</sup> February 2023, inclusive.

An illustration of the predicted and actual timing of conduct of the regulated activities is presented in **Table 1**.

**Table 1. Timing of Regulated Activities**

Activity	Predicted Duration	Proposed Dates	Actual Duration	Actual Dates
Well shut-in for pressure build up				27 <sup>th</sup> October 2021 – current day
Well suspension, Plugging and Abandonment	Four Weeks	To be determined		To be determined

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<sup>1</sup> Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11.

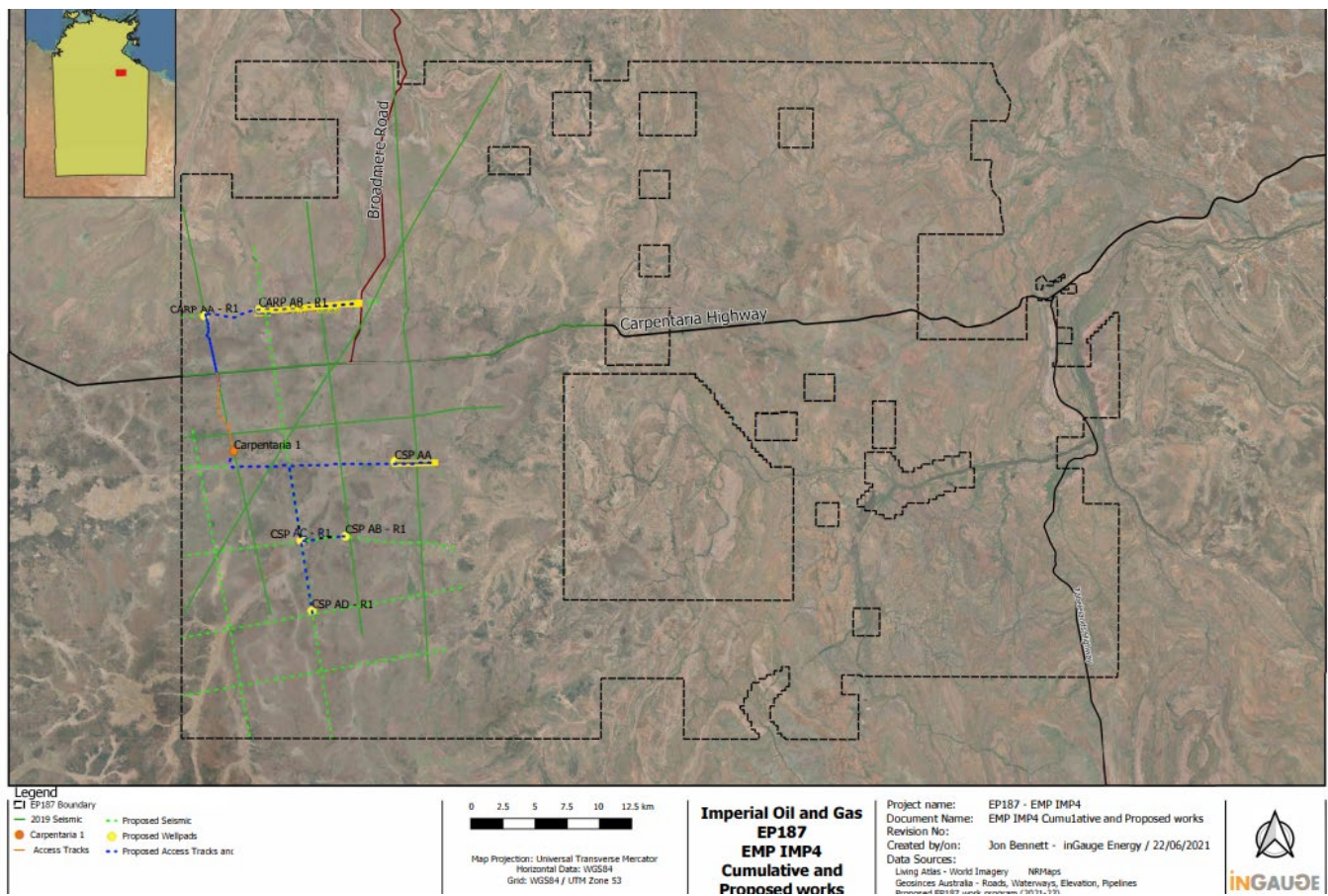
## 1.1. Background

The approved regulated activities within EP 187 relevant to this AEPR are as follows:

- Clear up to 10.5 hectares for Carpentaria-1 wellpad extension, firebreak and access tracks
- Establish bunded tanks pads and tanks fitted with leak detection at the well site
- Hydraulic Fracture stimulation of the existing vertical exploration well, Carpentaria-1
- Completion and workover maintenance of a vertical exploration well
- Extended Production Testing (EPT) of a vertical exploration well, with EPT  $\leq 90$  days
- Well suspension and decommissioning of an exploration well/s

During the reporting period of 15/02/2022 – 14/02/2023 of this AEPR there has been no regulated activity. The well has been on pressure build up since 27<sup>th</sup> October 2021.

The location of the regulated activities is shown in **Figure 1**.



**Figure 1. Location of the Carpentaria -1 Well Pad within EP187.**

## 1.2. Contents of performance report

This AEPR describes the environmental performance of Imperial Oil and Gas Pty Ltd by evaluation of the following:

1. compliance with Ministerial approval conditions, for each 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.

## 1.3. Assessment of performance

Table 2 shows the performance status indicators used in this AEPR.

**Table 2: Performance Descriptors**

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

## 1.4. Evidence of performance

The following sources of evidence are used to demonstrate compliance:

- Internal assessment of compliance through verification of:
  - Daily and weekly monitoring inspections, as committed to in the EMP
  - Inductions
  - Landholder consultation records
  - Site inspections
  - Recordable and reportable incident reports submitted to Department of Environment, Parks and Water Security (DEPWS)

## 2. Demonstration of Performance

Table 3 demonstrates Imperial Oil and Gas Pty Ltd's compliance with Ministerial EMP approval conditions.

**Table 3: Compliance with Ministerial EMP Approval Conditions**

No	Ministerial Condition	Performance Status	Evidence
1	The interest holder must submit to the Department of Environment, Parks and Water Security (DEPWS) via <a href="mailto:onshoregas.depws@nt.gov.au">onshoregas.depws@nt.gov.au</a> :		
	i. notification of the commencement of hydraulic fracturing activities one week prior to planned commencement;	Not Applicable	No hydraulic fracturing activities were commenced during the reporting period of this AEPR.
	ii. a timetable for the regulated activity that is to be provided one week prior to the commencement of the activity and each quarter thereafter, or more frequently should other constraints, such as seasonal weather forecasts or travel restrictions emerge, and including: <ul style="list-style-type: none"> <li>time-bound commitments in the EMP;</li> <li>due dates for satisfaction of Ministerial approval conditions;</li> <li>due dates for regulatory reporting;</li> </ul>	Compliant	<p>Timetable for the regulated activity including:</p> <ul style="list-style-type: none"> <li>time-bound commitments in the EMP;</li> <li>due dates for the satisfaction of ministerial approval conditions;</li> <li>due dates for regulatory reporting;</li> </ul> <p>Emailed to DEPWS in:</p> <ul style="list-style-type: none"> <li>March 2022</li> <li>30<sup>th</sup> June 2022 by Charles Dack</li> <li>30<sup>th</sup> September 2022 by Nick Fraser</li> <li>31<sup>st</sup> December 2022 by Charles Dack</li> </ul>
	iii. daily onsite reports indicating the status and progress of vegetation clearing and hydraulic fracturing, and the freeboard available in open wastewater tanks;	Compliant	Freeboard measured daily. Daily reports sent weekly to <a href="mailto:onshoregas.depws@nt.gov.au">onshoregas.depws@nt.gov.au</a>
	iv. a seven day activity forecast for the duration of the activity during the wet season (1 October - 30 April each year);	Not Applicable	No regulated activities undertaken during the reporting period.
	v. written notification of any halt to the activity due to wet season conditions, within 24 hours of the halt;	Not Applicable	No halt due to wet season conditions occurred during the reporting period of this AEPR.

No	Ministerial Condition	Performance Status	Evidence
	vi. immediate written notification of any fires potentially threatening the activity from external or internal sources;	Not Applicable	No fire event occurred during the reporting period of this AEPR.
	vii. weekly reports that detail the outcome of site inspections, and corrective actions taken, and inclusive of all commitments in the approved EMP, from the commencement of the regulated activity and continuing while the EMP remains in force.	Compliant	Weekly reports completed 15/2/22- 14/2/23.
2	In the event of any accidental release of contaminants that exceeds 200 litres (for liquids), the interest holder must provide a written report to DEPWS within 24 hours of the incident being detected. The report must include;		
	i. details of the incident specifying material facts, actions taken to avoid or mitigate environmental harm; and	Not Applicable	No release of contaminants during the reporting period of this AEPR.
	ii. the corrective actions taken including the volume and depth of impacted soil removed for appropriate disposal if required; and	Not Applicable	No release of contaminants during the reporting period of this AEPR.
	iii. any corrective actions proposed to be taken to prevent recurrence of an incident of a similar nature.	Not Applicable	No release of contaminants during the reporting period of this AEPR.
3	The interest holder must provide to DEPWS within 6 weeks of completion of well flowback operations at the Carpentaria-1 well site on EP187 a report on the risk assessment of flowback wastewater from the hydraulic fracturing phase, via onshoregas.depws@nt.gov.au. the risk assessment must be:		
	i. prepared by a suitably qualified person;	Not Applicable	Completion of well flowback operations did not occur during the reporting period of this AEPR.
	ii. prepared in accordance with the monitoring waste water analytes specified in Section C.3 of the <i>Code of Practice: Onshore Petroleum Activities in the Northern Territory</i> .	Not Applicable	Completion of well flowback operations did not occur during the reporting period of this AEPR.
4	In support of schedule 1, item 11 of the Petroleum (Environment) Regulations 2016 (NT) and clause A.3.5 of the Code, the interest holder must provide geospatial files of the land disturbance footprint(s) to DEPWS, via	Not Applicable	No land clearing activities occurred during the reporting period of this AEPR.



No	Ministerial Condition	Performance Status	Evidence
	Onshoregas.DEPWS@nt.gov.au, within 2 months of completion of each land clearing activity.		
5	The interest holder must provide an annual report to DEPWS via onshoregas.DEPWS@nt.gov.au on its environmental performance, in accordance with item 11(1)(b) in the schedule 1 of the PER. 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. the annual environmental 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.	Compliant	This Annual Environmental Performance Report is submitted by the due date of 15 <sup>th</sup> of May 2023 and aligns with the DEPWS template.
6	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.	Compliant	Emissions Report for reporting period 10/9/21 – 1/9/22 submitted on the 30/9/22. Revised edition sent to DEPWS on the 11/10/2022 by Charles Dack.
7	Audits of compliance must be undertaken by a suitably qualified and independent person, to be approved by DEPWS, and the audit report provided to DEPWS via Onshoregas.DEPWS@nt.gov.au, no later than 2 weeks after the completion of the audits, with the focus of the audits as follows:		
	i. conduct a readiness audit prior to commencement of hydraulic fracturing to confirm that EMP commitments have been met and that facilities are suitable to manage all foreseen risks that could occur during hydraulic fracturing; and	Not Applicable	No hydraulic fracturing was commenced during the reporting period of this AEPR.
	ii. conduct an operational audit during extended production testing to confirm that EMP commitments in relation to wastewater and spill management have been met.	Not Applicable	Extended production testing did not occur during the reporting period of this AEPR.
8	In support of clause 16 of the Water Act 1992 (NT) and clause B.4.2 of the Code, the interest holder must undertake	Not Applicable	No hydraulic fracturing was commenced or completed during the reporting period of this AEPR.

No	Ministerial Condition	Performance Status	Evidence
	groundwater level/pressure monitoring at the Carpentaria-1 impact monitoring bore using a logger to record water level for 4 weeks prior to, during and 4 weeks after completion of hydraulic fracturing operations on Carpentaria-1 well. Data logging should record at a minimum of every 4 minutes for the duration of the recording period. the logging data should be provided to DEPWS via Onshoregas.depws@nt.gov.au within 2 weeks of completion of groundwater level monitoring in the Carpentaria-1 impact monitoring bore.		
9	A register must be provided to DEPWS via onshoregas.DEPWS@nt.gov.au, of the key service providers that will be engaged for the regulated activity, prior to undertaking the relevant scope of work	Not Applicable	No regulated activities were undertaken during the reporting period of this AEPR. Site is currently non-operational during the reporting period.
10	In support of clause B.4.17.2 of the code, the interest holder must provide to DEPWS, via Onshoregas.DEPWS@nt.gov.au, groundwater monitoring data and an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site(s) in accordance with Table 6 of the Code. Groundwater data must be provided within one month of collection and be provided quarterly, in a format to be determined by DEPWS. The interpretive report must be provided annually within three months of the anniversary of the approval date of the EMP and include:		
	i. demonstration that there is no change to groundwater quality or level attributable to conduct of the regulated activity at the well sites(s);	Compliant	Quarterly groundwater monitoring data undertaken in Q1, Q2, Q3 and Q4 of 2022. Annual Interpretive Report submitted 13 <sup>th</sup> May 2022 via email to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a>
	ii. interpretation of any statistical outliers observed from baseline measured values for each of the analytes;	Compliant	Annual Interpretive Report submitted 13 <sup>th</sup> May 2022 via email to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a>
	iii. discussion of any trends observed; and	Compliant	Annual Interpretive Report submitted 13 <sup>th</sup> May 2022 via email to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a>
	iv. a summary of the results inclusive of descriptive statistics	Compliant	Annual Interpretive Report submitted 13 <sup>th</sup> May 2022 via email to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a>

Table 4 provides a systematic overview of Imperial Oil and Gas Pty Ltd's performance against the environmental outcomes and environmental performance standards within the approved EMP.

**Table 4: Compliance with Environmental Outcomes and Environmental Performance Standards**

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
1	Conduct of the regulated activity does not create safety risks for the public or landholders.	Operations carried out in a manner that does not create excessive dust.	Compliant	No complaints received concerning dust.
2	Conduct of the regulated activity does not create safety risks for the public or landholders.	Speed limits posted on unsealed access tracks adhered to.	Compliant	Speed signs posted. Incident management system shows no records of non-adherence to speed limits when undertaking weekly inspections.
3	Conduct of the regulated activity does not create safety risks for the public or landholders.	Dust suppression activities undertaken on unsealed access roads during the dry season.	Compliant	Dust suppression activities were undertaken.
4	Conduct of the regulated activity does not create safety risks for the public or landholders.	Vehicle movements on publicly accessible roads carried out in a safe manner.	Compliant	No complaints received concerning dangerous driving.
5	Conduct of the regulated activity does not create safety risks for the public or landholders.	Well site fenced and signposted permanently with the well name, well number, major hazards and details of the interest holder.	Compliant	Weekly checklist confirms well site is fenced with signage that is compliant with the Code of Practice.
6	Conduct of the regulated activity does not create safety risks for the public or landholders.	Well site always remains fenced to prevent access from livestock.	Compliant	Weekly checklist shows well site fence installed and intact throughout the regulated activity.
7	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	No vegetation cleared beyond the approved areas.	Not Applicable	No clearing occurred during the reporting period.

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
8	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	No introduction of new weed species or spread of existing weed populations as a result of conduct of the regulated activity.	Compliant	No declared weeds observed during post weed survey conducted by Northern Territory Weed Management Branch in March 2023.
9	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	No fires in surrounding areas resulting from conduct of the regulated activity	Compliant	Weekly inspection records show assessment of fire breaks and fire access trails completed at least monthly during the dry season.
10	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	All putrescible waste stored in vermin-proof enclosed receptacles.	Not Compliant	During DEPWS site visit in February 2023 a bunch of decomposing bananas were found in the bushland neighbouring the well pad lease.
11	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	All listed waste transported by licensed waste contractors.	Compliant	All waste transferred by licenced waste contractors.
12	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	No waste is disposed of on-site.	Not Compliant	During DEPWS site visit in February 2023 a bunch of decomposing bananas were found in the bushland neighbouring the well pad lease. All putrescible waste should be stored in vermin-proof enclosed receptacles.
13	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	All waste segregated on-site according to whether it is hazardous, recyclable or for general disposal.	Compliant	Designated waste areas provided.
14	Sensitive receptors, significant conservation areas, or listed	Wastewater from drilling stored in lined wastewater sumps.	Compliant	Drilling wastewater stored in lined pits on-site.

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
	species or their habitat, is not permanently affected by conduct of the regulated activity.			
15	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	All vehicles, plant and equipment maintained and operated per manufacturer requirements to prevent unnecessary noise or vibration creating disturbance.	Not Applicable	Site is currently non-operational during the reporting period.
16	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	No impacts on landholders or the community regarding from lighting, noise or vibrations.	Compliant	Community complaints register shows no complaints received concerning noise, vibration or light spill.
17	Sensitive receptors, significant conservation areas, or listed species or their habitat, is not permanently affected by conduct of the regulated activity.	All site lighting directed inward, where practicable.	Not Applicable.	Site is currently non-operational during the reporting period.
18	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	No ground disturbance occurs outside of designated areas approved for ground disturbance.	Not Applicable	No ground disturbance occurred during the reporting period.
19	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	No vehicle movements outside of designated areas approved for ground disturbance.	Not Applicable	No vehicle movements outside of designated areas approved for ground disturbance.
20	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	No unauthorised vehicle crossing of flowing creeks or watercourses.	Not Applicable	No flowing creeks or watercourses on access track.

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
21	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	All liquid chemicals and hazardous substances stored within secondary impermeable containment at all times or bunded areas that can hold 110% of the largest container.	Compliant	Weekly inspection records confirm all hazardous materials stored in compliance with relevant SDS.
22	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	All storage vessels for wastewater and hazardous substances are maintained at 100% integrity.	Compliant	Daily inspection records confirm tanks and storage vessels intact and free from defects or tears. Incident management system includes no record of failures of integrity of storage vessels.
23	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	No instances of loss of containment of wastewater.	Compliant	No loss of containment of wastewater occurred during the reporting period.
24	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	Freeboard for all wastewater sumps, flowback water tanks and produced water tanks maintained at all times.	Compliant	Site induction records show all personnel inducted and induction materials include requirements related to storage of wastewater. Weekly reports confirm wastewater levels do not exceed freeboard. Records of exceedance of the freeboard are included in the incident management system and evidence of corrective actions and preventative measures implemented.
25	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	All spills remediated immediately on discovery.	Not Applicable	No spill occurred during the reporting period. Site is currently non-operational during the reporting period.
26	Terrestrial environmental quality, including surface waters, is not permanently affected by conduct of the regulated activity.	No water taken from surface water sources.	Not Applicable	Site is currently non-operational during the reporting period.

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
27	The conduct of the regulated activity does not result in the over extraction or contamination of groundwater resources.	Compliance with the groundwater extraction licence.	Not Compliant	Groundwater extraction volumes recorded on-site and provided to Water Resources quarterly. Water extraction undertaken at approved registered groundwater bores. Groundwater taken was more than maximum permitted volume specified in the Groundwater Extraction Licence but was still compliant with the EMP.
28	The conduct of the regulated activity does not result in the over extraction or contamination of groundwater resources.	No contamination of aquifers from the regulated activities.	Compliant	Quarterly groundwater monitoring data results shows no contamination of the local aquifers from the regulated activities.
29	Local inland water quality is not permanently affected by conduct of the regulated activity.	All storage vessels for wastewater and hazardous substances are maintained at 100% integrity.	Compliant	Daily inspection records confirm tanks and storage vessels intact and free from defects or tears.
30	Local inland water quality is not permanently affected by conduct of the regulated activity.	No instances of loss of containment of wastewater.	Compliant	Incident management system includes records of loss of containment of wastewater.
31	Local inland water quality is not permanently affected by conduct of the regulated activity.	Freeboard for all wastewater sumps, flowback water tanks and produced water tanks maintained at all times.	Compliant	Daily inspections confirm wastewater levels do not exceed freeboard. Records of exceedance of the freeboard are included in the incident management system and evidence of corrective actions and preventative measures implemented.
32	Minimise emissions, including greenhouse gases, created by conduct of the regulated activity.	Operations carried out in a manner that does not create excessive emissions.	Not Applicable	Site is currently non-operational during the reporting period.
33	Minimise emissions, including greenhouse gases, created by conduct of the regulated activity.	All vehicles, plant and equipment maintained and operated per	Not Applicable	Site is currently non-operational during the reporting period.

No	Environmental Outcome	Environmental Performance Standard	Performance Status	Evidence
		manufacturer requirements to minimise emissions.		
34	Minimise emissions, including greenhouse gases, created by conduct of the regulated activity.	Flaring to be used rather than venting during production testing.	Not Applicable	No production testing occurred during the reporting period.
35	Minimise emissions, including greenhouse gases, created by conduct of the regulated activity.	Gas leak detection, repair and notification to be conducted throughout all phases of the project that have live equipment.	Not Applicable	Site is currently non-operational during the reporting period.



Table 5 demonstrates Imperial Oil and Gas Pty Ltd 's compliance with reporting requirements in the *Code of Practice: Onshore Petroleum Activities in the Northern Territory* (Code of Practice) and interest holder's compliance with reporting and monitoring requirements under the Petroleum (Environment) Regulations 2016 (NT) schedule 1, item 11(2), which requires the EMP to include all information required to be recorded, monitored or reported. Where relevant, Imperial Oil and Gas Pty Ltd has also confirmed that all records, monitoring or required reporting under the Petroleum (Environment) Regulations 2016 (NT),<sup>2</sup> or under a commitment made in the EMP, has been provided to DEPWS or the relevant NTG agency.

**Table 5: Compliance with Reporting and Monitoring Requirements**

No	Reference	Requirement	Performance Status	Evidence
1	Code cl A.3.5 EMP s10.4	Geospatial information depicting areas cleared is to be provided to the Minister.	Not Applicable	No areas cleared during the reporting period.
2	Code cl A.3.6 (b) EMP s10.5 Appendix 09	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	Compliant	Weed Survey undertaken by Fox & Co Environmental March 2022 on Carp 1 well pad and access track.
3	Code cl A.3.7(a)vi EMP s10.6 Appendix 08	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	<i>Appendix 08 - Fire Management Plan</i> of the approved EMP includes the required clause in Section 8.4.7
4	Code cl A.3.9(c) Code cl A.3.9(e) EMP Appendix 12	The rehabilitation plan developed as part of the EMP requires progressive rehabilitation of significantly disturbed land which is required 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.	Not Applicable	Rehabilitation not commenced yet.

<sup>2</sup> Petroleum (Environment) Regulations 2016 (NT) sch 1, item 11(2).

No	Reference	Requirement	Performance Status	Evidence
5	Code cl B.4.13.2(c) EMP s11.15.2	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 c) typical and maximum concentrations of chemicals or other substances used.	Not Applicable	No hydraulic fluids pumped during the reporting period.
6	Code cl B.4.13.2(k)iv EMP s11.15.4	Where venting is the only technically feasible option for managing produced gas, the technical considerations preventing the use of the recovered gas must be recorded and included in the operator's annual report.	Not Applicable	No venting occurred during the reporting period.
7	Code cl B.4.14.2(c) EMP s3.1.1 S11.4	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 DITT.	Not Applicable	No new barriers or well operating envelopes to verify or document during the reporting period.
8	Code cl B.4.15.2(j) EMP s11.17	Complete and accurate records of the entire decommissioning procedure must be kept, with these records submitted as part of the	Not Applicable	No decommissioning of petroleum wells occurred during the reporting period.

No	Reference	Requirement	Performance Status	Evidence
		legislative reporting requirements for the decommissioning of petroleum wells.		
9	Code cl C.3(e) EMP Appendix 06 & 07	The components of the wastewater management framework, include: Monitor, manage and report in accordance with the Wastewater Management Plan and Spill Management Plan.	Compliant	No spills occurred during the reporting period.
10	Code cl C.6.1(d) EMP Appendix 06 & 07	Wastewater tracking documentation must be reported to the Minister at least annually in accordance with the framework (Spill Management Plan and Wastewater Management Plan) outlined in the EMP.	Compliant	Wastewater tracking documentation scheduled for reporting to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a> in May 2023.
11	Code cl C.7.1(d)ii EMP Appendix 06	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.	Compliant	Waste and Wastewater Management Plan of the approved EMP includes the required clause.
12	Code cl D.5.9.2(c) EMP s16 Appendix 10	Emissions from exploration, well construction (including during flowback) and workovers must be measured and reports submitted. <i>Note: the interest holder must provide to DEPWS a report on actual versus predicted greenhouse gas emissions in the EMP, and cumulative emissions.</i>	Compliant	Emissions Report for reporting period 10/9/21 – 1/9/22 submitted on the 30/9/22. Revised edition sent to DEPWS on the 11/10/2022 by Charles Dack.

No	Reference	Requirement	Performance Status	Evidence
13	Code cl 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 natural gas was vented or flared.
14	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.	No reportable incidents occurred during the reporting period.
15	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/cleanup of the affected area.	Not Applicable.	No reportable incidents occurred during the reporting period.
16	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	All recordable incident reports were provided to DEPWS no later than 15 days after the 90-day reporting period. Reports were submitted to <a href="mailto:Onshoregas.DEPWS@nt.gov.au">Onshoregas.DEPWS@nt.gov.au</a> on the below dates. Q1 – emailed by Charles Dack Q2 – emailed 8 <sup>th</sup> July 2022 by Charles Dack. Q3 – emailed 14 <sup>th</sup> October 2022 by Charles Dack. Q4 – emailed 13 <sup>th</sup> January 2023 by Charles Dack
17	Reg 37A EMP Appendix 06	A report about flowback fluid from hydraulic fracturing must be	Not Applicable.	Report not required during the reporting period.

No	Reference	Requirement	Performance Status	Evidence
		provided to the Minister within 6 months of the flowback occurring.		
18	Reg 37B EMP Appendix 06	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.	Report not required during the reporting period.
19	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 <b>before</b> commencement of construction, <sup>3</sup> drilling, or seismic surveys.	Not Applicable.	No activity to notify during the reporting period.
20	EMP Appendix 06 Table 10	Bore water quality and quantity tested monthly during bore operations.	Not Applicable.	No regulated activity operations during the reporting period.
21	EMP Appendix 06 Table 10	Hydraulic fracturing fluid monitored post blender, before injection at each HF stage.	Not Applicable.	No hydraulic fracturing occurred during reporting period.
22	EMP Appendix 06 Table 10	Flowback fluid monitored weekly until fluid has stabilised, then every six months.	<b>Not Compliant</b>	Flowback fluid was only monitored once within the 15/02/2022 – 14/02/2023 reporting period, on the 19 <sup>th</sup> of October 2022. It was previously sampled on the 13 <sup>th</sup> of October 2021 and so was due for sampling April 2022.
23	EMP Appendix 06 Table 10	Produced water monitored weekly until fluid has stabilised, then every six months.	Not Applicable	No produced water generated from the well.

<sup>3</sup> Note, civil works are also considered 'construction' activities.

No	Reference	Requirement	Performance Status	Evidence
24	EMP Appendix 06 Table 10	Wastewater tanks and surrounding lease areas monitored for fauna interaction daily during operations, weekly during non-operational periods and at final decommissioning.	Compliant	Weekly inspection records show wastewater tanks and surrounding lease areas are monitored for fauna interaction.
25	EMP Appendix 07 Table 6	Ponds and tank levels monitored and checked for leaks daily during operations and weekly during periods of site inactivity.	Compliant	Weekly inspection records show pond and tank levels monitored.
26	EMP Appendix 07 Table 6	Tanks structural integrity and freeboard available (when wastewater is stored onsite). Visually check levels, integrity and check for leaks daily during operations and weekly during periods of site inactivity.	Compliant	Weekly inspection records show tank structural integrity and freeboard available.
27	EMP Appendix 07 Table 6	Chemical storage areas (when chemicals stored on site) visually inspect for leaks and integrity of containment vessels and area daily during operations.	Not Applicable.	No hazardous chemicals currently stored on site.
28	EMP Appendix 10 Table 1	Well and equipment on a well pad to be inspected every 6 months for leaks.	Compliant	Weekly inspection records show wastewater tanks and surrounding lease areas are monitored for fauna interaction.

## 3. Overall Performance

### 3.1. Overview of performance

Table 6 provides a summary of the results of the compliance assessment against the 86 total compliance items.

**Table 6: Performance Summary**

Compliance Indicator	Number	Percentage
Compliant	40	46%
Not Compliant	4	5%
Not Applicable	42	49%

## 3.2. Overview of non-compliant items

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 or partial 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. Environmental performance standards

Table 7: Overview of non-compliant environmental performance standards

Description	Analysis of potential environmental harm or impact	Corrective actions
<p>On the 5<sup>th</sup> of May 2023 Imperial Oil and Gas Pty Ltd received a warning letter under the Water Act 1992 (Act) from Brett Doherty, Regulation Officer DEPWS. Water Resource Division records indicated that total maximum water entitlement for licence GRF10316 for the period 1<sup>st</sup> May 2022 to 30<sup>th</sup> April 2023 was exceeded. In this period, water extraction was 103.7 mega litres (ML), and although compliant with the EMP, it was 17.3 ML over the maximum water entitlement of 85 ML specified in the GWEL and therefore a breach of section 61 of the Act.</p>	<p>This is the first such offence recorded for Imperial as a licence holder and DEPWS noted that the impact on the water resource is likely to be minor. Over extraction was a result of schedule changes in Carpentaria 3/ 4 executed works and unanticipated water usage (including inner liner replacement of the Water Tanks on Carpentaria 2 / 3 during initial hydraulic fracturing). Carpentaria 1 utilises the same water licence used.</p>	<p>Steps have been taken to address the breach including monitoring water use through the water year and analysing future water requirements against the licence current allocation. It is noted that future breaches of the maximum entitlement are likely to result in an infringement notice under the Water Regulations 1992, with penalties of \$1,660.</p>
<p>During the 8<sup>th</sup> – 9<sup>th</sup> February site inspection conducted by DEPWS a bunch of decomposing bananas were found in the bushland immediately neighbouring the Carpentaria 1 well pad lease.</p> <p>No waste should be disposed of on-site and all putrescible waste should be stored in vermin-proof enclosed receptacles.</p>	<p>Leaving food waste in non-designated waste areas has the potential to attract pests and wildlife. Food waste can disturb local ecosystems by altering the natural food chain dynamics.</p>	<p>The importance of utilising designated waste areas for any food waste will be reinforced to camp managers in any future works.</p>



### 3.2.2. Environmental monitoring

Table 8: Overview of non-compliant environmental monitoring

Description	Analysis of potential environmental harm or impact	Corrective actions
<p>The EMP Appendix 06 Table 10 commits to Flowback fluid monitored weekly until fluid has stabilised, then every six months. Flowback fluid was only monitored once within the 15/02/2022 – 14/02/2023 reporting period, on the 19<sup>th</sup> of October 2022. It was previously sampled on the 13<sup>th</sup> of October 2021 and was therefore due for sampling April 2022.</p>	<p>This was a lapse of monitoring and does not increase the potential for environmental harm or impact. Internal restructures at the time resulted in an EMP commitment being missed.</p>	<p>For the 2023 monitoring schedule, Imperial is on track to meet environmental monitoring commitments to flowback fluid. Monitoring was already undertaken on the 28<sup>th</sup> of March 2023 and scheduled to occur again late September 2023. Activity schedules have been updated to inform due dates for EMP monitoring commitments of flowback fluid.</p>

### 3.3. Application of lessons learnt

The non-compliance items contain elements of lapsed monitoring – not adequately monitoring water extraction usage and not fulfilling flowback monitoring EMP commitments. Imperial acknowledges the opportunity to identify where improvements to internal processes are required to ensure future compliance. On investigation, it was determined that:

1. Scheduling changes had unanticipated flow on effects on water allocation periods.
2. Internal restructures allowed for gaps within company commitments.
3. Existing tools such as activity schedules were not used to inform due dates for EMP commitments.

To ensure that all Ministerial approval conditions and EMP requirements are achieved in a timely manner in the future, the following processes have been established:

1. All scheduling changes must have full projection and estimates recalibrated (including water usage).
2. Internal restructures have been reviewed and a separate compliance email address has been created ([compliance@empiregp.net](mailto:compliance@empiregp.net)) to ensure reporting dates and submissions are able to be reviewed by teams rather than one individual.
3. Monitoring requirements have been updated in a compliance monitoring system.