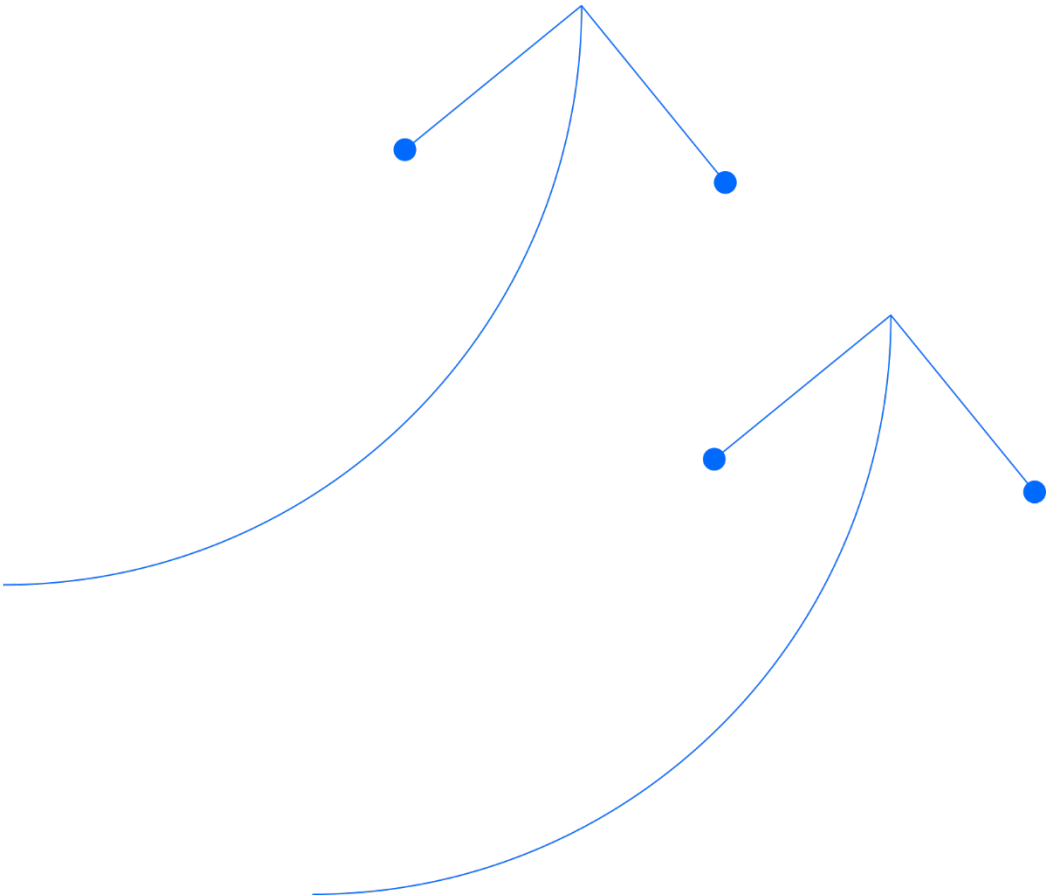


ANNUAL ENVIRONMENTAL PERFORMANCE REPORT 2024

Dukas-1 – Conventional Gas Well



Document Title	Annual Environmental Performance Report 2024 Dukas-1 – Conventional Gas Well
Environmental Management Plan covered	Dukas-1 – Conventional Gas Well
Permit	EP 112 and EP 125
Interest Holder Details	<p>Santos QNT Pty, 60 Flinders Street, Adelaide South Australia 5000 GPO Box 2455, Adelaide South Australia 5001 ABN 33 083 077 96</p> <p>Frontier Oil and Gas Pty Ltd ABN 91 103 194 136 GPO Box 292, Brisbane, Qld, 4001</p> <p>Ordiv Petroleum Pty Ltd ABN 29 111 102 697 GPO Box 292, Brisbane, Qld, 4001</p> <p>Peak Helium (Amadeus Basin) Pty Ltd ABN 65 654 263 804 Suite 2 Level 6, 12 Creek Street, Brisbane Queensland 4000</p>
Operator Details	<p>Santos QNT Pty, 60 Flinders Street, Adelaide South Australia 5000 GPO Box 2455, Adelaide South Australia 5001 ABN 33 083 077 96</p>
Approved by	Santos QNT Pty
Date Approved	15 May 2024

Signature and Certification

I/We 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.

Asset / Project Approval

Signature



Name (print)

David Gornall

Position

Manager Environment EA PNG

Date

15 May 2024

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Abbreviations and Units

Acronym / Abbreviation	Description
AEPR	Annual Environmental Performance Report
ALARP	As low as reasonably practicable
Code	Code of Practice
DEPWS	Department of Environment, Parks and Water Security
DITT	Department of Industry, Tourism and Trade
EMP	Environmental Management Plan
EP	Exploration Permit
NT	Northern Territory
NT EPA	Northern Territory Environmental Protection Authority
Regulations	Petroleum (Environment) Regulations 2016
SMS	Santos Management System
SSCC	Sacred Site Clearance Certificate

1. Introduction

The *Petroleum (Environment) Regulations 2016* (PER) include a requirement for the interest holder to provide a report to the Minister on an annual basis that outlines the environmental performance of the interest holder (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 PER and any other law in force in the Northern Territory related to conduct of the regulated activity.

This Annual Environmental Performance Report (AEPR) applies to the McArthur Basin Drilling Program that was approved on 15 February 2019 (Figure 1, Figure 2). The period covered by this AEPR is from 15 February 2023 to 14 February 2024.

1.1. Background

Santos QNT Pty Ltd (Santos) submitted the *Dukas-1 – Conventional Gas Well EMP, Revision 3, January 2019* (EMP 2019) under the PER that came into force 6 July 2016. EMP 2019 was submitted to cover the following scope for the Dukas-1 well across EP 112 and 125:

- Civil works
- Water extraction and storage
- Drilling activities, including formation evaluation (open hole or cased hole wireline)
- Wellbore seismic evaluation (e.g. vertical seismic profiling or checkshot surveying)
- Production testing (drill stem test, extended production tests)
- Well integrity monitoring.

Under Regulation 22, two modifications to the regulated activity within the EMP have been approved:

- Addition of authorisation to drill third water supply bore within the project area (14 March 2019)
- Addition of completing a “walkway” vertical seismic profile (VSP) in addition to a “zero-offset” VSP. A walkaway VSP involves the use of a mobile seismic source (a vibroseis truck) at the surface, which is moved to pre-determined offsets away from the Dukas-1 conventional gas well while the downhole receivers are held at a fixed location (8 August 2019).

Status of works:

- EMP 2019 was approved on 15 February 2019.
- This AEPR has been prepared to report on activities that have occurred under EMP 2019 between 15 February 2023 and 14 February 2024.
- No regulated activities were undertaken during the reporting period.

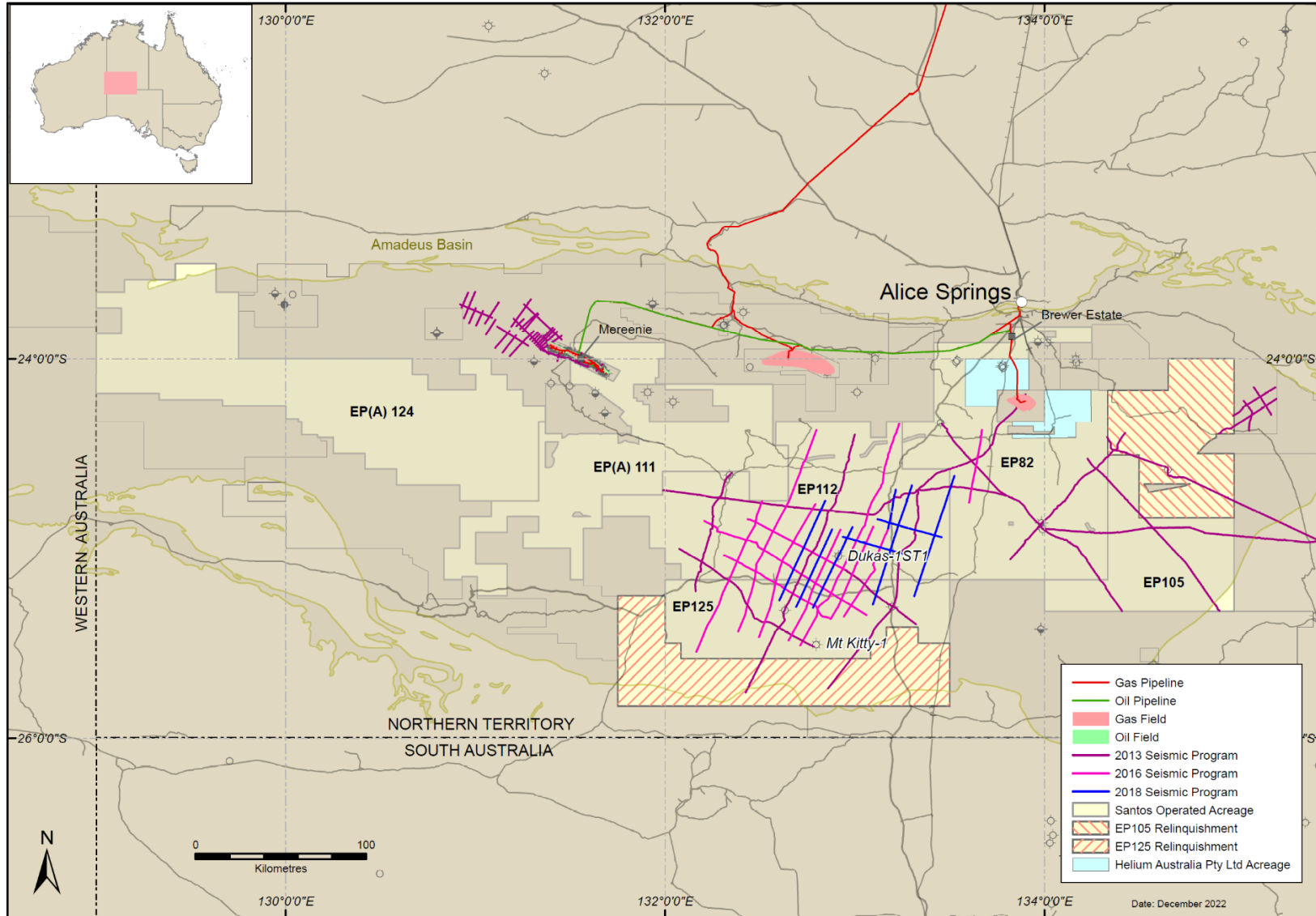


Figure 1: Santos acreage, Amadeus Basin, NT

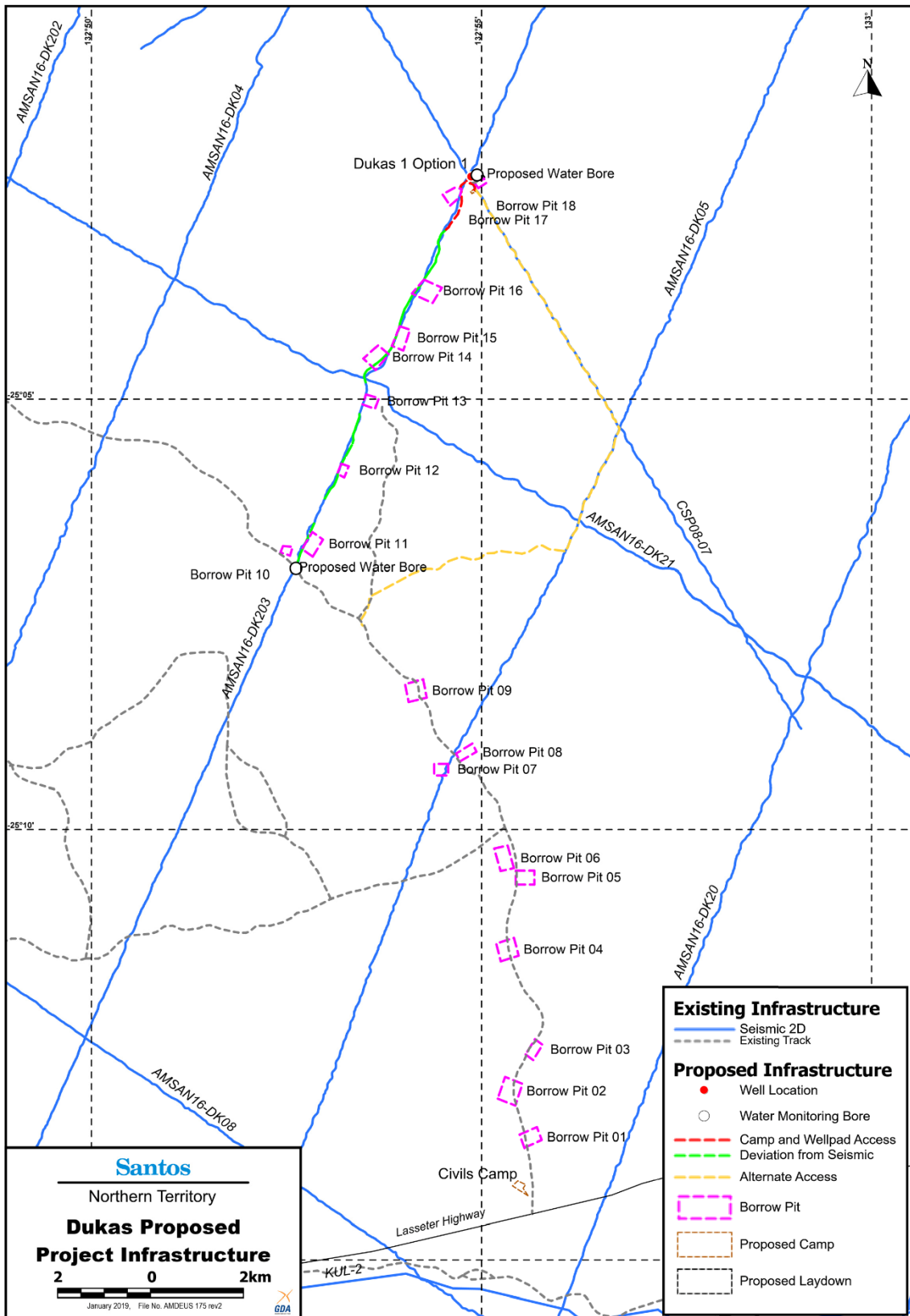


Figure 2: Location of Dukas 1 Well and Supporting Infrastructure

1.2. Contents of Performance Report

This AEPR describes the environmental performance of Santos by evaluation of the following:

- Compliance with Ministerial approval conditions for each EMP.
- Compliance with each environmental outcome and environmental performance standard within the EMP 2019.
- Compliance with reporting requirements in accordance with the Code and Regulations.
- All recordable and reportable incidents, including root cause analysis and related corrective actions to prevent re-occurrence.
- Findings of all regulatory inspections and audits and related actions to address any findings.

1.3. Assessment of Compliance

Table 1 shows the compliance status indicators used in this AEPR.

Table 1: Compliance descriptors

Indicator	Description
Compliant	Compliant with requirement for the reporting period
Not Compliant	Not compliant with the requirement during the reporting period
Not Applicable	Requirement not applicable during the reporting period

1.4. Evidence of Compliance

The following sources of evidence are used to demonstrate compliance:

- Internal monitoring of compliance by Santos through internal audits of compliance and reporting including incident reporting.
- Outcomes from regulator inspections conducted by the Department of Environment, Parks and Water Security (DEPWS) (Petroleum Operations Branch).
- Recordable and reportable incident reports submitted to DEPWS Petroleum Operations
- Reports provided to DEPWS, the Department of Industry Tourism and Trade (DITT) and other government agencies.

2. Demonstration of Compliance

Table 2 demonstrates Santos’s compliance with Ministerial EMP approval conditions.

Table 2: Compliance with ministerial EMP approval conditions from 15 February 2023 to 14 February 2024.

Item No.	Ministerial Condition	Compliance Status	Evidence
1.	The approval is subject to the following conditions: a. Activities under this approval must commence within 12 months of the date of this approval.	Not Applicable	Commencement of activities conducted under this EMP were not within the current reporting period. Activities commenced within 12 months of the date of this approval as reported in previous AEPR relating to this EMP.

Table 3 provides a systematic overview of Santos’s compliance with the environmental outcomes and environmental performance standards within the approved EMP.

Table 3: Compliance with Environmental Outcomes and Environmental Performance Standards

Item No.	Environmental Outcome	Environmental Performance Standard	Measurement Criteria	Compliance Status	Evidence
1	Minimise emissions to air Minimise disturbance to native fauna	Blade work is banned on naturally smooth surfaces or flat easy terrain. Minimal blade work is permitted elsewhere for access	Daily checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
2	Minimise disturbance to native vegetation Minimise the impact on human health	Where possible, existing tracks, roads or seismic lines will be used for access.	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
3		No driving off designated access roads	All project staff undertaken an environmental and cultural induction as	Compliant	<i>All personnel had required inductions in accordance with the Santos Management System.</i>

			recorded in the Santos Training Register		
4		Speeds on unsealed roads will be limited – maximum 60 km/hr for light vehicles, 40 km/hr for trucks and heavy vehicles.	In-vehicle Monitoring System (IVMS) weekly reports	<i>Compliant</i>	<i>Speed limits adhered to.</i>
5		Water trucks will be used for dust suppression as required.	Dust minimised and inconsequential. No flora death due to dust accumulation	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
6	Minimise emissions to air	All vehicles, plant and the drill rig will be in good working order. Engines and machinery are maintained in accordance with the maintenance schedule	Engines and Machinery are maintained in accordance with the maintenance schedule	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
7	Minimise disturbance to native fauna Minimise disturbance to livestock, pastoral infrastructure and landholders	All boundary lighting will be positioned to face inwards to provide adequate lighting for safe operations, without excessive overspill.	Inspection of lighting in the camp area	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
8		Ensure site environmental inductions for all site personnel and contractors include the issue of noise, vibration and light and protective measures to prevent disturbance.	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System.</i>
9		Lighting used on drill site to minimise offsite disturbance, while maintaining safety standards.	No lighting other than that required for maintaining safety standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
10	Minimise disturbance to native fauna	Existing noise attenuation devices fitted to drill rig and other machinery used on site	Audit of machinery and drill rig to ensure compliance	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

	Minimise disturbance to landholders	will be maintained in good working order.			
11	Minimise disturbance to livestock	Engines and machinery are maintained in accordance with the maintenance schedule.	Audit of machinery and drill rig to ensure compliance	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
12	Minimise disturbance to landholders	Maintain communications during operations with relevant landholders.	Adherence to the communications procedure with landholders	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
13	Minimise loss of vegetation Minimise disturbance to native fauna and loss of habitat Minimise damage to soil through	All personnel are given environmental and cultural heritage inductions prior to commencing work. Inductions for all employees and contractors cover pastoral, conservation, legislation and infrastructure issues	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System.</i>
14	compaction and exposure Minimise disturbance or damage to culturally sensitive site	Activities to be planned to minimise new land disturbance by utilising previous disturbed areas or existing tracks (where possible), and through operational practices including weaving.	Daily checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>There were no new areas of disturbance in the reporting period.</i>
15		Staying within designated work areas and on approved roads.	Daily checklist confirms that only approved access roads used.	<i>Compliant</i>	<i>Driving only occurred on designated tracks.</i>
16		Preference to use previously disturbed areas. Where possible, existing tracks, roads or seismic lines will be used for access.	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>There were no new areas of disturbance during the reporting period.</i>

17	Minimise loss of vegetation	Mature trees selected for preservation are to be flagged to ensure their protection	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
18		Cleared vegetation will be respread during rehabilitation	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
19		Branches will be pruned in preference to total tree removal	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
20	Minimise disturbance to native fauna and loss of habitat	Hollow timber/trees that may be nesting/roosting sites for fauna will not be cleared.	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
21	Minimise damage to soil through compaction and exposure	Grading will be minimised where possible. If light grading is necessary, flora rootstock will be left intact to promote regeneration.	Checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
22		The Erosion and Sediment Control Plan developed by a Certified Professional in Erosion and Sediment Control (CPESC) plan will be implemented.	Audit of the Erosion and Sediment Control Plan controls	Compliant	<i>An Erosion and Sediment Control Plan has previously been developed by a CPESC. No relevant regulated activities were undertaken during the reporting period.</i>
23		Inversion of the soil profile will be minimised where possible	Daily checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

24	No disturbance or damage to culturally sensitive site	Disturbance is restricted to areas which have CLC clearance	GIS database that includes project areas and cultural heritage sites	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
25		Ensure a sacred site clearance certification will be obtained prior to any activity.	No activity prior to the granting of a sacred site clearance certificate.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
26		Known sites of sacred or cultural significance are identified and avoided.	Details of sacred and cultural significant sites included in GIS database and utilised when determining project footprint (and provided to project personnel as part of induction)	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
27		Any new sites identified during the activity will be reported to the Santos Cultural Heritage Team and avoided.	Details of new heritage sites included in GIS database	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
28		Maintain GIS database of project footprint and cultural heritage sites including details of any Restricted Work Areas.	GIS database that includes project areas and cultural heritage sites	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
29	No groundwater extraction impacting existing groundwater users/environment	Groundwater impact risk assessment for the proposed extraction rates and durations will be undertaken and will determine if monitoring is required	Compliance with groundwater risk assessment documentation	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
30		Ensure groundwater take is limited to the small volumes required by the project.	Record of groundwater extraction volume limited to the volumes in the EMP	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
31		Ensure appropriate licences are obtained prior to drilling	Record of groundwater extraction licence (and	<i>Not Applicable</i>	<i>On 20 February 2019, a phone call with DEPWS Water Resources hydrogeologist confirmed that as the project is not</i>

		program and that planned extraction is sustainable.	compliance with licence requirements)		<i>located within a Water Control District, and will not extract more than 15 L/s, no licence is required for groundwater extraction. Volumes sustainable.</i>
32		If local water resources are used, bore numbers and estimated extraction volumes will be provided to DPIR.	Daily record of bore number and extraction values.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
			Record/s of correspondence with DPIR on groundwater extraction	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
33	Minimise disturbance to surface water	Drivers will be appropriately qualified and will be trained in emergency response	Training records to confirm appropriate training for drivers	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
34	Minimise disturbance to groundwater	Vehicles will have appropriate spill kits and staff trained in emergency response	Audit of vehicles and mobile plant and staff training	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
35	Minimise reduction in soil quality	Travel Management Procedures are in place	Audit of travel management procedure	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
36		Well bore integrity assessed prior to commencing drilling test.	Audit of well integrity testing	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
37		Blow-out preventer in well	As-built specifications of well	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
38		Cement bond logging completed	As-built specifications of well	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
39		Well control procedures are in place including The Santos Drilling And Completions Technical Standards 7 - Well Control Onshore	Compliance with the technical standard	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

40		Well design and weighted mud system in place and are known.	Audit of well integrity testing	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
41		Real time monitoring of conditions during drilling including drilling monitoring & gas detection monitoring	Audit of results of real time monitoring determines results compliant with standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
42		Riser & diverter will be used to prevent mud spills	As-built specifications of well and civils met	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
43		Pre-spud checks / Pre-job checks when transferring mud	Checklist confirms checks have been completed	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
44		Appropriate bunding in use for storage of chemicals and where required adherence to standards (e.g. Storage and Handling of Workplace Dangerous Goods National Standard [NOHSC:1015(2001)])	As-built specifications of well and civils met	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
45		Real time monitoring of conditions during drilling.	Audit of drilling operations	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
46		Drilling Muds will be mixed in tanks.	Audit of drilling operations	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
47		Spill kits available to treat spills in-situ	Weekly checklist confirms all hazardous materials stored and managed and spill kits available	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

48		Minimise fuel transfer where possible.	Weekly audit of fuel transfers	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
49		Use of drip trays for transfers.	Weekly checklist confirms all hazardous materials stored and managed and drip trays used for transfers	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
50		Any spills contained and remediated.	No records in the Incident Management System	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
51		Any spills will be remediated to the satisfaction of the landholder, fenced, soil removed to appropriate facility and signed off by land holder in accordance with the access.	Landholder complaints logged in complaints register	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
52		Fuel and other lubricants will be appropriately stored and managed, in accordance with AS1940.	Checklist confirms all hazardous materials stored and managed in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
53	Unplanned interaction with or disturbance to other land users	Relevant landowners and occupiers are notified prior to civil and drilling activities.	Consultation records demonstrate notification	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
54		Inductions for all employees and contractors cover pastoral, conservation, legislation and infrastructure issues.	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
55		All litter is to be managed and disposed of correctly.	No records in the Incident management systems	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

56		System is in place for logging landholder complaints to ensure that issues are addressed as appropriate.	Landholder complaints logged in complaints register	<i>Compliant</i>	<i>No complaints occurred during the reporting period.</i>
57		Damage to station tracks is avoided and reported if does occur.	No records in the Incident management systems	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
58		All gates are left in the condition in which they were found	No records in the Incident management systems	<i>Compliant</i>	<i>All gates left as found.</i>
59		Speeds on unsealed roads will be limited – maximum 60 km/hr for light vehicles, 40 km/hr for trucks and heavy vehicles and 20 km/hr around stock yards	IVMS weekly reports demonstrate no exceptions	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System. Speed limits were adhered to.</i>
60		When necessary, all fences are restored to satisfaction of landowner / managers.	No records in the Incident management systems	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
61	Minimise disturbance to native fauna Minimise disturbance to livestock, pastoral infrastructure and landholders	No driving off designated access roads	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System.</i>
62		Speeds on unsealed roads will be limited – maximum 60 km/hr for light vehicles, 40 km/hr for trucks and heavy vehicles and 20 km/hr around stockyards.	IVMS weekly reports demonstrate no exceptions	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System. Speed limits were adhered to.</i>
63		Pits and water bore ponds will be fenced	As-built pit specifications met	<i>Compliant</i>	<i>All pits are fenced</i>

64	Minimise disturbance to native fauna	Routine checks of pits during construction and throughout the drilling program	Daily checklist ensures pits are checked	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
65	Minimise disturbance to livestock, pastoral infrastructure and landholders	Relevant landowners and occupiers are notified prior to civil and drilling activities.	Notice of Entry completed before works undertaken	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
66		All gates are left in the condition in which they were found	No records in the Incident management systems	Compliant	<i>All gates left as found.</i>
67		When necessary, all fences are restored to satisfaction of landowner / managers.	No records in the Incident management systems	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
68	Minimise disturbance to native fauna Minimise disturbance to native flora	Well site fire management protocol will be in place with monitoring	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
69	Minimise disturbance to livestock	Fire-fighting equipment and competent fire-fighting personnel will be used	Training register to confirm personnel have appropriate training	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
70	Minimise disturbance to landowners	Include fire season education as part of the induction.	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
71		Appropriate fire prevention procedures in place.	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

72		Appropriate firefighting gear available to the crew.	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
73		All vehicles will be equipped with portable fire extinguishers.	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Compliant</i>	<i>All Santos vehicles are fitted with portable fire extinguishers.</i>
74		Machinery and vehicles should be parked in areas of low fire risk and be low fire risk and be free of any combustible material	IVMS weekly reports demonstrate no exceptions	<i>Compliant</i>	<i>Machinery and vehicles parked in existing cleared areas.</i>
75		Any petrol motor vehicles or petrol-powered pumps will be fitted with spark arresters.	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
76		All vehicles will be equipped with operational VHF and / or UHF radio transceivers.	Weekly checklist confirms all firefighting equipment and procedures are in place in accordance with Environmental Performance Standards	<i>Compliant</i>	<i>All Santos vehicles are fitted with operational transceivers.</i>
77		Smoking will only be permitted in areas clear of vegetation,	No records in the Incident management systems	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

		and there will be no disposal of butts.			
78		All personnel will receive information prior to the commencement of the activity relating to: <ul style="list-style-type: none"> Provisions of the Emergency Response Plan including procedures during a fire emergency The operation of firefighting equipment and communications Restricted smoking requirements 	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System.</i>
79		Toolbox meetings will be conducted to: <ul style="list-style-type: none"> Alert the workforce of the fire risk level for the day Discuss any fire risk management breaches and remedial actions 	Records of toolbox meetings, which indicate when there is a high fire risk in place.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
80		The flare pit will be monitored during flaring	Audit of monitoring during flaring activity	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
81	Minimise disturbance to native fauna	Weed wash-down certification for vehicle and machinery from interstate.	A register of vehicle / equipment / machinery cleaning is kept.	<i>Compliant</i>	<i>No interstate vehicles.</i>
82	Minimise disturbance to native flora Minimise negative impacts to soil quality	Ensure site environmental inductions for all site personnel and contractors include vehicle weed hygiene requirements and information on exotic invasive ants.	All project staff undertaken an environmental and cultural induction as recorded in the Santos Training Register	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System.</i>
83	Minimise disturbance to livestock	All vehicle and equipment movements to stay on formed	All project staff undertaken an environmental and	<i>Compliant</i>	<i>All personnel had required inductions in accordance with the Santos Management System. Driving only occurred on designated tracks.</i>

		access tracks, well leases and camp areas.	cultural induction as recorded in the Santos Training Register		
84		Ensure vehicles, machinery and equipment entering the permit areas have been cleaned and are free of soil and vegetative matter, or have a valid weed hygiene certificate.	A register of vehicle / equipment / machinery cleaning is kept.	<i>Compliant</i>	<i>Vehicles and machinery entering permit area free of soil and vegetative matter and weed declarations were made for all vehicles.</i>
85		A baseline weed assessment has been completed prior the commencement of works covered in this EMP. This baseline assessment will be used to provide benchmarks for post-project monitoring.	Baseline Weed Assessment documentation delivered to DENR	<i>Compliant</i>	<i>Baseline Weed Assessment was included in the Weed Management Plan. This documentation was delivered to DENR on the 18 December 2018. The Weed Management Plan was approved 20 December 2018.</i>
86		To minimise spread of buffel grass from the south to the north of the project area, road works will be completed in the northern areas first and transporting soil material from the south to the north will be minimised.	Daily checklist confirms all clearing is in accordance with Environmental Performance Standards	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
87		Baseline data will be collected in consultation with the Department of Environment and Natural Resources (DENR) and data will be provided to DENR in a format to be specified by them.	Baseline Weed Assessment documentation delivered to DEN	<i>Compliant</i>	<i>Baseline Weed Assessment was included in the Weed Management Plan. This documentation was delivered to DENR on the 18 December 2018. The Weed Management Plan was approved 20 December 2018.</i>
88		Areas of priority weeds identified will be marked.	Maintain demarcation during operations and inspect (and rectify if needed) daily.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
89		If infestations of priority weed species are identified during baseline assessment they will be avoided via a detour	Maintain demarcation during operations and inspect (and rectify if needed) daily.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

		around the infestation if within line tolerance.			
90		If infestations are unavoidable, infestations will be crossed at the narrowest point and wash downs will be conducted once exiting the infestation.	Maintain demarcation during operations and inspect (and rectify if needed) daily.	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
91		To minimise pest fauna interactions, municipal wastes and putrescible food wastes will be stored in sealed containers that limit access from Rock Doves and Sparrows	Waste records	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
92		All water storages will be fenced to exclude large herbivorous fauna (Camels and Donkeys)	Bore design specifications	<i>Compliant</i>	<i>Site is fenced.</i>
93	Minimise disturbance to surface water Minimise reduction in soil quality	Pits will have sufficient storage capacity to ensure there is an adequate freeboard, ensuring the highest recorded monthly rainfall can be accommodated.	Pit design documents	<i>Compliant</i>	<i>Pits have large freeboard capacity.</i>
94		Sump and flare pit levels will be monitored for overflow during and after high rainfall at all times while drilling	Monitoring during rainfall events	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
95		Soil sampling will include a baseline sample to drilling, sampling sump fluid post drill and sampling cuttings when dried out	Samples complete and documented	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
96		Cuttings burial or removal subject to sampling results	Results of consultant report adhered to and DPIR notified	<i>Not applicable</i>	<i>Dukas 1ST1 did not reach the primary reservoir target and was plugged and suspended for future re-entry and deepening. As a result, the lined cuttings pit remains in place for future activity. The cuttings pit has been fenced off with temporary fencing with a second fence barrier around the well lease to prevent animal ingress. Liquid in the cuttings pit is expected to entirely evaporate and the cuttings to dry out. Laboratory certificates of analysis show that cuttings sampling</i>

					<i>occurred on 3 October 2019. Additional analysis is required prior to cuttings disposal. Re sampling of these pits occurred on 6 May 2021. Cuttings disposal will be completed either prior to or following future activity at the project site.</i>
97	Minimise disturbance to groundwater	Cuttings pit will be constructed with a liner	As-built pit specifications	<i>Compliant</i>	<i>Cuttings pit lined and built as per specification.</i>
98		Cuttings pit will be inspected to check the integrity of the liner	Daily checklist	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>
99		Cuttings pit liner will be removed at the completion of project activities during demobilisation and rehabilitation activities prior to being backfilled.	Demobilisation checklist	<i>Not Applicable</i>	<i>Dukas 1ST1 did not reach the primary reservoir target and was plugged and suspended for future re-entry and deepening. As a result, the lined cuttings pit remains in place for future activity. The cuttings pit has been fenced off with temporary fencing with a second fence barrier around the well lease to prevent animal ingress.</i>
100		Groundwater monitoring will be undertaken to ensure leaching is not occurring.	Monitoring program	<i>Compliant</i>	<i>The Groundwater monitoring program commenced May 2018 with additional samples collected in March 2019 and October 2019. Groundwater monitoring will recommence at least one month prior to any operations resuming.</i>
101	Minimise disturbance to native fauna	Waste will be segregated on site and all putrescible waste material will be held in fauna proof containers.	Waste records	<i>Not Applicable</i>	<i>No relevant regulated activities were undertaken during the reporting period.</i>

Table 4 demonstrates Santos's compliance with reporting requirements in the *Code of Practice: Onshore Petroleum Activities in the Northern Territory (Code of Practice)* and the *Petroleum (Environment) Regulations 2016 (NT)*.

Table 4: Compliance with mandatory reporting requirements for Code of Practice and Petroleum (Environment) Regulations 2016.

Item No.	Reference	Requirement	Compliance Status	Evidence
1.	Code cl A.3.5	Geospatial information depicting areas cleared is to be provided to the Minister.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
2.	Code cl A.3.6 (b)	Weed management plan developed as part of the EMP must provide for ongoing weed monitoring.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations

3.	Code cl 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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
4.	Code cl A.3.9(c) Code cl A.3.9(e)	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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
5.	Code cl 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 c) typical and maximum concentrations of chemicals or other substances used.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
6.	Code cl 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 recorded and included in the operator's annual report.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
7.	Code cl 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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
8.	Code cl 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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
9.	Code cl B.4.17.2(d)	Any guidelines published by the Northern Territory Government from time to time	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations

		relating to reporting and data submission, and groundwater monitoring data standards must be followed.		
10.	Code cl C.3(e)	The components of the wastewater management framework, include; Monitor, manage and report in accordance with the Wastewater Management Plan and Spill Management Plan.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
11.	Code cl C.6.1(d)	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	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
12.	Code cl 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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
13.	Code cl 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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
14.	Code cl D.5.9.2(c)	Emissions from exploration, well construction (including during flowback) and workovers must be measured and reports submitted.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
15.	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.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
16.	Code cl D.6.1	All mandated government reporting is complied with; and all detectable leaks and emissions are reported on an annual basis.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
17.	Code cl D.6.2(a)	Reports of baseline assessments must be submitted at the conclusion of each field campaign.	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations
18.	Code cl D.6.2(b)	Emissions reporting must be in accordance with Section D.5.6. Emissions associated	<i>Not Applicable</i>	Approved prior to Code being incorporated into Regulations

		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.		
19.	Regulation 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 and the plan ceases to be in force.	<i>Compliant</i>	<i>The EMP remains in force.</i>
20.	Regulations Schedule 1, item 9(2)	Interest holders are required to conduct future engagement with stakeholders, in accordance with the description in the EMP.	<i>Compliant</i>	<i>Stakeholder engagement logs indicate that engagement with stakeholders has been ongoing.</i>
21.	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.	<i>Not Applicable</i>	<i>There were no reportable incidents during this period.</i>
22.	EMP Section 7.6 Reporting Regulation 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.	<i>Not Applicable</i>	<i>There were no reportable incidents during this period.</i>
23.	EMP Section 7.6 Reporting Regulation 34	Reports on reportable incidents are to be provided to DENR as soon as practicable and within 72 hours of the event occurring. A final report must be provided to DENR within 30 days after remediation/cleanup of the affected area..	<i>Not Applicable</i>	<i>There were no reportable incidents during this period.</i>
24.	EMP Section 7.6 Reporting Regulation 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).	<i>Compliant</i>	<i>4 Recordable Incident reports provided to DEPWS within the 15-day timeframe during the reporting period</i>
25.	Regulation 37A	A report about flowback fluid from hydraulic fracturing must be provided to the Minister within 6 months of the flowback occurring.	<i>Not Applicable</i>	<i>The regulated activity did not include hydraulic fracturing.</i>
26.	Regulation 37B	A report about produced water from hydraulic fracturing must be provided to the	<i>Not Applicable</i>	<i>The regulated activity did not include hydraulic fracturing.</i>

		Minister within 6 months of the produced water being extracted.		
27.	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 which causes or threatens to cause material or significant environmental harm	<i>Not Applicable</i>	<i>No incidents which could cause or threaten to cause material or significant environmental harm occurred during reporting period.</i>
28.	Waste Management and Pollution Control Act 1998 (NT) s14	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.	<i>Not Applicable</i>	<i>No incidents which could cause or threaten to cause material or significant environmental harm occurred during reporting period.</i>

3. Summary of Compliance

3.1. Overview of Compliance

Table 5 provides a summary of the results of the compliance assessment against the 130 total compliance items.

Table 5: Compliance Summary

Compliance Indicator	Number	Percentage
Compliant	31	24
Not Compliant	0	0
Not Applicable	99	76

3.2. Overview of items found Not Compliant

The following sections describe the any compliance requirements not met during the reporting period.

3.2.1. Ministerial Approval Conditions

Not applicable

3.2.2. Environmental Performance Standards

Not applicable

3.2.3. Regulatory Reporting

Not applicable