



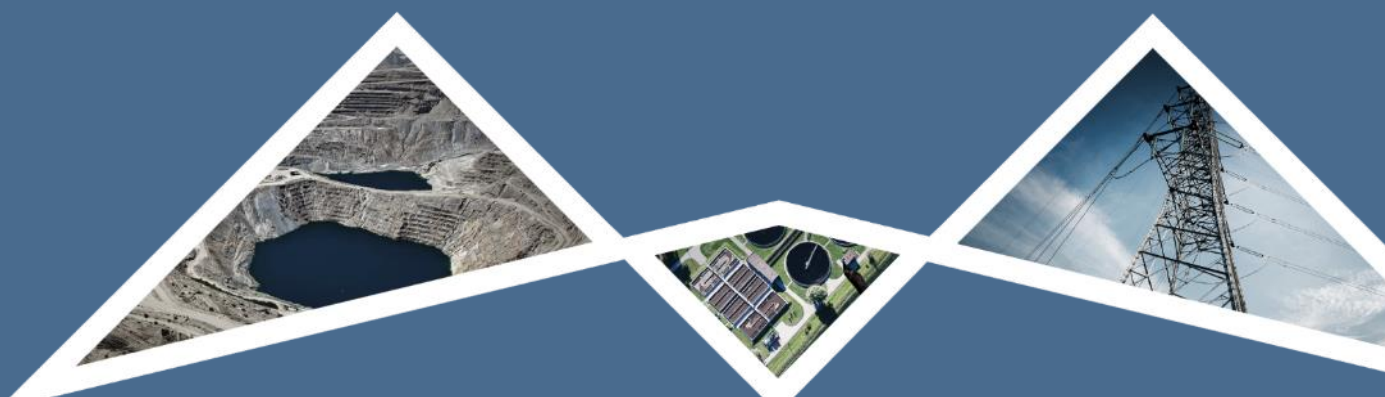
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NEMA ENVIRONMENTAL AUDIT REPORT – MAY 2023

AZINAM BLOCK 2B EXPLORATION

PASA/DMRE Reference Number: 12/3/105





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List of Abbreviations

Abbreviation	Item
COVID-19	Coronavirus Disease 2019
EA	Environmental Authorisation
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EIMS	Environmental Impact Management Services (Pty) Ltd
EMPR	Environmental Management Programme Report
I&AP	Interested and Affected Party
MPRDA	Mineral and Petroleum Resources Development Act, Act 28 of 2002
NEMA	National Environmental Management Act, Act 107 of 1998
PASA	Petroleum Agency of South Africa
SAHRA	South African Heritage Resources Agency



EXECUTIVE SUMMARY

Environmental Impact Management Services (Pty) Ltd (EIMS) was appointed by Azinam South Africa Limited (Azinam) to undertake the Environmental Audit of the Environmental Authorisation (EA) and Environmental Management Programme (EMPr) for the Azinam Block 2B Exploration Well Drilling (PASA Ref:12/3/105).

Condition 23 of the EA requires that: *“An Environmental Audit Report must be submitted to the Department within 30 days after completion of the establishment phase and within 30 days after demobilisation and exploration drilling completion.”* The audit was undertaken in accordance with Regulation 34 and Appendix 7 of the National Environmental Management Act, Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014: Regulation 34 states:

- 1) *“The holder of an environmental authorisation must, for the period during which the environmental authorisation and EMPr, and where applicable the closure plan, remain valid-*
 - (a) Ensure that the compliance with the conditions of the environmental authorisation and the EMPr, and where applicable the closure plan, is audited; and*
 - (b) Submit an environmental audit report to the relevant competent authority.*

The **scope** of the audit is to assess compliance of the exploration drilling with the conditions of the approved EA and EMPr and to confirm the continued adequacy of the EMPr in relation to the activities undertaken. The **purpose** of the audit is to ensure compliance with the requirement of the EA and EMPr and the NEMA EIA Regulation 34 to undertake scheduled compliance audits. The **objectives** of the audit are to determine:

- The level of performance against and compliance of the exploration drilling and demobilisation with the provisions of the requisite EA and EMPr; and
- The ability of the measures contained in the EMPr, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the exploration drilling and demobilisation activities.

Compliance with the requirements was evaluated using the pre-determined scoring criteria as described in Section 4.2 and the results of the audit are described in Section 5 of this report. A total of 44 conditions (commitments) were identified in the EA that were evaluated. Twelve (12) of these conditions were considered not applicable and 32 were considered applicable to the current phase of the project. Of the applicable conditions a total of 31 commitments were noted to be fully compliant, 1 partially compliant and 0 were non-compliant. A total of 36 commitments were identified in the EMPr that were evaluated. Five (5) of these conditions were considered not applicable and 31 was considered applicable to the current phase of the project. Of the applicable conditions a total of 26 conditions were noted to be fully compliant, 2 were partially compliant and 3 were rated as non-compliant.

Based on the evaluation criteria described in Section 4.2, **a total compliance score of 98.44% and 95.16% was obtained for the EA and EMPr respectively. Four non-compliance findings were raised from the compliance evaluation. Based on the audit, the EMPr is considered adequate and effective to manage and mitigate the activity and impacts.**



1 INTRODUCTION

An Exploration Right (ER) was issued to Thombo Petroleum Limited (Thombo) on 13 April 2011. The First Renewal period of the ER for Block 2B expired on 13 March 2017 and the second renewal expired on 19 February 2020. Thombo submitted a joint application for the Third Renewal of the ER on 14 February 2020, which was approved on 17 November 2020. The Third Renewal of the ER expired on 16 November 2022.

An application process to undertake exploration well drilling in the target area identified within the Block 2B ER area following the analysis of the 3D seismic acquisition. In terms of the MPRDA and NEMA at the time, an EIA and EMPr process was undertaken. The EIA and EMPr were submitted to the authorities in April 2016 and were approved by the then Department of Environmental Affairs on 24 August 2016. An amendment to the Environmental Authorisation (EA) (Ref: 13/3/105) to extend the commencement expiry date from 23 August 2021 to 23 August 2023 was subsequently approved by the Deputy Director-General: Mineral and Petroleum Regulation Department of Mineral Resources and Energy on 7 April 2021, such approval was communicated by PASA (Petroleum Agency of South Africa) on 9 April 2021. A notification of name changes and corresponding transfer of right and obligations was submitted to PASA on 20 May 2022. The ownership of the ER is described in Table 1.

Table 1: Ownership of the Exploration Right for Block 2B.

Joint Venture Partner	Participating Interest
Thombo Petroleum Limited	22.00375%
Africa Energy South Africa Proprietary Limited (formerly known as Main Street 840 Proprietary Limited)	5.49625%
Simbo Petroleum No.2 Limited	10%
Azinam South Africa Limited	50%
Panoro 2B Limited	12.5%

Environmental Impact Management Services (Pty) Ltd (EIMS) was appointed by Azinam South Africa Limited (Azinam) to undertake the Environmental Audit of the Environmental Authorisation (EA) and Environmental Management Programme (EMPr) for the Azinam Block 2B Exploration Well Drilling (PASA Ref:12/3.105).

Condition 23 of the EA requires that: *“An Environmental Audit Report must be submitted to the Department within 30 days after completion of the establishment phase and within 30 days after demobilisation end exploration drilling completion.”* The audit was undertaken in accordance with Regulation 34 and Appendix 7 of the National Environmental Management Act, Act 107 of 1998 (NEMA) Environmental Impact Assessment (EIA) Regulations, 2014: Regulation 34 states:

- 2) *“The holder of an environmental authorisation must, for the period during which the environmental authorisation and EMPr, and where applicable the closure plan, remain valid-*
 - (c) *Ensure that the compliance with the conditions of the environmental authorisation and the EMPr, and where applicable the closure plan, is audited; and*
 - (d) *Submit an environmental audit report to the relevant competent authority.*
- 3) *The environmental audit report contemplated in sub-regulation (1) must-*
 - (a) *be prepared by an independent person with the relevant environmental auditing expertise;*
 - (b) *provide verifiable findings, in a structured and systematic manner, on*
 - i) *The level of performance against and compliance of an organisation or project with the provisions of the requisite environmental authorisation or EMPr and, where applicable, the closure plan; and*



- ii) *The ability of the measures contained in the EMPr, and where applicable the closure plan, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity;*
- (c) *Contain the information set out in [Appendix 7](#); and*
- (d) *Be conducted and submitted to the competent authority at intervals as indicated in the environmental authorisation”.*

1.1 DETAILS OF THE HOLDER

Details of the holder are summarised in Table 2 below.

Table 2: Details of the holder.

Company Name	Thombo Petroleum Limited
JV Partners	Azinam South Africa Limited, Africa Energy South Africa (Pty) Ltd, Thombo Petroleum Limited, Panoro 2B Limited, Simbo Petroleum No.2 Limited
Postal Address	PO Box 248, Cape Town, 8000
Telephone Number	+230 417 2516
Cell phone Number	+230 52 52 6049
E-mail	trevor@thombopetroleum.com
Contact Person	Trevor Ridley

1.2 BRIEF PROJECT DESCRIPTION

On 9 February 2010, Thombo obtained a Record of Decision which approved the Environmental Management Programme (EMPr) for undertaking a 3D seismic survey in support of an exploration right application for Block 2B. The EMPr was approved by the Department of Mineral Resources and Energy in terms of the Mineral and Petroleum Resources Development Act, 2002 (No. 28 of 2002) (MPRDA), as amended. The decision limited the survey to a 1 700 km² operational sail area and a fold cover area of 523 km². Thombo obtained an exploration right (ER 12/3/105) for Block 2B offshore South Africa on 13 April 2011.

Under the Exploration Right and the approved EMPr, Thombo undertook a 3D seismic survey (20 January 2013 to 17 February 2013) during the initial three-year Exploration Right period. No other physical offshore exploration activities have been conducted over the block under the Exploration Right by the holders during this period. The subsequent work performed has comprised of desktop analyses of the seismic data and further desktop studies.

In October 2014, a Closure Plan was submitted to PASA for the relinquishment of a portion of Block 2B. A south-eastern portion with an approximate extent of 1 089.7 km was relinquished (relinquished on submission of 1st renewal period in March 2015). A further 15% was relinquished on submission of the 2nd renewal period in January 2017 and a further 15% relinquished on submission of the 3rd renewal period in February 2020 resulting in a remaining 3 063 km² for the 3rd period.

In 2014, Thombo commenced with an application process to undertake exploration well drilling in the target area identified following the analysis of the 3D seismic acquisition. In terms of the MPRDA and NEMA at the time, an EIA and EMPr process was undertaken. The EIA and EMPr were submitted to the authorities in April 2016. The EIA was approved by the then Department of Environmental Affairs on 24 August 2016 and amended on 7 April 2021 by the Department of Mineral Resources and Energy. In preparation for the exploration drilling



a seabed survey was undertaken from 6 August 2021 to 10 August 2021. The seabed survey was audited in terms of NEMA in 2022 by EIMS. The audit report was submitted to the regulatory authority and notifications were sent to the I&APs regarding the submission and the availability of the audit report as required under the NEMA EIA Regulations.

Azinam South Africa Ltd appointed Island Drilling to undertake drilling of the Gazania-1 exploratory well within Licence Block 2B. The licence block is situated between latitudes 30° and 31° South, with its inshore boundary approximately 15 km off the coastal town of Hondeklip Bay within the Northern Cape Province of South Africa. The drilling platform, Island Innovator, was on location from 04 October 2022 to 28 November 2022 and completed drilling of the Gazania-1 well at a location approximately 30 km offshore from the coastline, at a water depth of 150 m.

1.3 SUMMARY OF ACTIVITIES UNDERTAKEN DURING THE REPORTING PERIOD

As per the End of Well Report (WMI-001-AFZA-21-40, 16 February 2023), the brief summarised events of the exploration well drilling were:

- The Gazania-1 exploratory well was drilled offshore the west coast of South Africa – Cape Town in Block 2B in a water depth of 150 m. The 6th generation Semisubmersible Island Innovator sailed from UK arriving at the well location, at 16:00, 2 October 2022.
- Anchor laying operations were started with the Umkhuseli Anchor Handling Vessel (AHV). After the anchors were laid and the rig cross tensioned into position a 37" drilling Bottom Hole Assembly (BHA) was made up and the well spudded @ 23:00 on the 9th of October 2022. 36" mixed string conductor was run and cemented in place to 239.9 m Measures Depth Below Rotary Table (MDBRT).
- Subsequently a 17-1/2" BHA was made up and drilled to 676 m BRT, the 13-3/8" casing was run and landed at 672 m MDBRT which was crossed over from the 20" High Pressure Wellhead Housing (HPWHH) at the seabed. The Blow Out Preventer (BOP) was run on riser, landed, latched, and tested. During this operations phase, 5 days were lost trying to latch on to the wellhead because the rig compensator failed, the situation was exacerbated by the rig guide funnel having been left behind in Norway. Poor weather conditions, (high seas) resulted in pulling the BOP to surface for safety reasons.
- A 'packed hole' stabilised 12-1/4" rotary BHA was Run in Hole (RIH). After drilling out the 13-3/8" shoe a Formation Integrity Test (FIT) was performed. The 12-1/4" hole section was drilled vertically without any problems to Total Depth (TD) at 1,364m MDBRT. The proposed E-line logging and Vertical Seismic Profile (VSP) programme was cancelled, and 9-5/8" casing was run and cemented at 1,359m MDBRT.
- An 8-1/2" 'packed hole' BHA was RIH and drilled to TD of 2,360m MDBRT utilising 3 BHA's that included 2 motor runs to reduce torque and improve Rate of Penetration (ROP). A FIT was performed to 13.2ppg after drilling out of the 9-5/8" shoe and 3m of new formation This interbedded formation was drilled with varying ROP range of 2–10m/hr. A VSP was performed during this section to determine and confirm the top of Gazania target.
- At TD, a basic logging suite comprising 3 wireline runs were made that included taking 25 side wall cores at varying depths of interest. Core recovery was 100%.
- On completion of the logging programme the well was permanently plugged and abandoned with 5 plugs from bottom extending back into the 9-5/8" casing shoe. After Waiting on Cement (WOC) the top plug was tagged and pressure tested to 1,300psi above 9.7ppg mud.
- The 9-5/8" casing was then cut and pulled, followed by the wellhead. Significant delays were observed during this phase, although the flat time was utilised to lay down pipe and demobilizing equipment to release the rig earlier.



- The rig was released @ 04:00 on 29 November 2022. Anchor removal operations continued and were concluded on the 4th of December 2022.

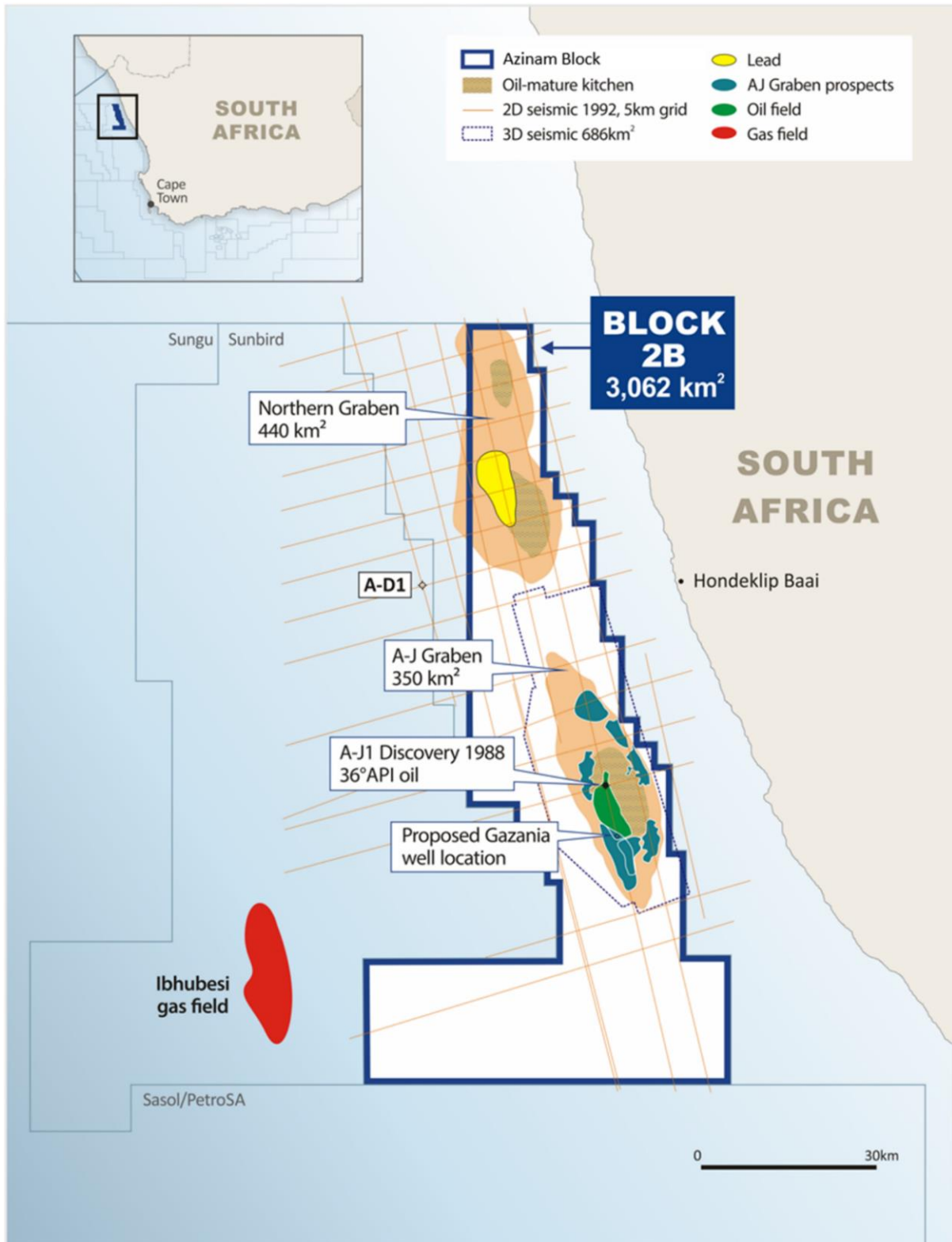


Figure 1: Layout Map of the Gazania Well Location.



2 DETAILS OF THE AUDITOR

The environmental audit was undertaken by Francois Barnard from EIMS. Francois' details are described in section 2.1.

2.1 EXPERTISE OF THE AUDITOR

Francois is an environmental scientist offering environmental management, auditing, monitoring, training, rehabilitation, and project management services. He is a registered Professional Natural Scientist who holds a BSc Honours degree in environmental sciences from the North-West University in Potchefstroom and is a trained environmental auditor (Aspects International, 2012). The auditing training included all aspects of environmental auditing as well as EMS auditing in terms of ISO14001. In addition, he is trained on the ISO14001:2015 environmental standard and has completed the EMS lead auditor training in terms of ISO14001:2015. He has over 15 years' experience in the environmental management and environmental and social auditing field on numerous projects and facilities in the energy, mining, infrastructure development and conservation management sectors. He is conversant with the South African environmental legislation as well as sustainability auditing, including Equator Principles, IFC Performance Standards and World Bank EHS guidelines. Francois has a thorough understanding of the environmental and social assessment and permitting processes and is experienced in the review, compilation and implementation of environmental and social management plans, procedures, and method statements in line with best practice standards and systems. A detailed CV can be provided on request.

2.2 DECLARATION OF INDEPENDENCE

I, Francois Barnard, declare that –

- *I act as the independent Environmental Auditor;*
- *I will perform the work relating to the environmental audits in an objective manner, even if this results in views and findings that are not favourable to the Client;*
- *I declare that there are no circumstances that may compromise my objectivity in performing such work;*
- *I have expertise in conducting environmental audits, including knowledge of the environmental Acts, regulations and any guidelines that have relevance to the audited operations;*
- *I will comply with the relevant Acts, regulations, and all other applicable legislation;*
- *I have no, and will not engage in, conflicting interests in the audit process;*
- *I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the NEMA; and*
- *I do not have and will not have any vested interest (either business, financial, personal, or other) in the audit other than remuneration for work performed.*

3 SCOPE, PURPOSE AND OBJECTIVE OF THE AUDIT

The **scope** of the audit is to assess compliance of the Gazania 1 Exploration Well drilling operations with the conditions of the approved EA and EMPr and to confirm the continued adequacy of the EMPr in relation to the exploration drilling only. The **purpose** of the audit is to ensure compliance with the requirement of the EA and EMPr and the NEMA EIA Regulation 34 to undertake scheduled compliance audits. The **objectives** of the audit are to determine:

- The level of performance against and compliance of the exploration drilling and demobilisation with the provisions of the requisite EA and EMPr; and



- The ability of the measures contained in the EMPr, to sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the undertaking of the exploration drilling and demobilisation activities.

4 AUDIT METHODOLOGY

4.1 PROCEDURE FOR THE AUDIT

Initial documentation was obtained and reviewed in preparation for the audit. A checklist was prepared based on the requirements of the EA and EMPr. Compliance with the requirements was evaluated using the pre-determined scoring criteria as described in Section 4.2 and the results of the audit are described in Section 5 of this report.

The Environmental Audit is primarily a Compliance Audit against the conditions of the approved EA and EMPr. Findings from the audit that did not relate to an EMPr condition did not contribute to the audit score. However, where deficiencies have been identified that do not necessarily correspond to EMPr conditions, these findings have been used to provide recommendations for improvement, when applicable.

Various documentation and records were required during the audit to confirm compliance with the requirements and were made available electronically for review.

There is wide variety of South African environmental legislation, and the organisation is required to comply with all relevant legislation. Whilst consideration was given to the relevant environmental legislation, a full comprehensive legal compliance audit is beyond the scope of this audit. Where reference is made to legislation or other statutory provisions in this report, the original legislation or other statutory provisions will always take precedence and the reader is directed to revert to the original legislation or statutes.

4.2 EVALUATION CRITERIA USED DURING THE AUDIT

The evaluation criteria for compliance scoring were based on a pre-determined scoring system. Each condition of the EA and EMPr was weighted equally to determine a compliance score. The scoring criteria used during the audit are as follows:

- Fully Compliant: Indicating that the condition was fully complied with and provided with a compliance score of 4.
- Partially Compliant: Indicating that the condition has not been fully complied with and that additional measures are required to obtain full compliance. Partial compliances were provided with a compliance score of 2.
- Non-Compliant: Indicating that the condition has not been complied with and provided with a compliance score of 0.
- Not Applicable (N/A): Indicating that the condition is not currently applicable. Not applicable conditions were removed from the total number of conditions from which the compliance score was calculated during this reporting period.

4.3 CONSULTATION PROCESS UNDERTAKEN

The findings of this assessment are based only on interviews and documentation reviewed. No site visit, physical testing or analysis was performed during the assessment and information provided by employees was verified by review only. The Project representatives that were interviewed and assisted with the audit were:

- Colin Kinley – ECO Atlantic Oil and Gas.
- Alice Carroll – ECO Atlantic Oil and Gas.
- Paul Spilsbury – NRG Group



- Jan Maier – Africa Energy Corporation.
- Megan Rodgers – Cliffe Dekker Hofmeyr Incorporated.

As per the Regulation 34 of the EIA Regulations, 2014, all potential and registered interested and affected parties should be notified of the submission of the report to the authorities and the report should be made available to anyone on request and it should be made available on a publicly accessible website, where the holder has such a website.

5 RESULTS OF THE AUDIT

The results of the audit have been described in this section of the report. The results include a summary of compliance with the requirements of EA and EMPr, the results of the compliance evaluation, summary of findings as well as a discussion on the continued adequacy of the EMPr within sections 5.1, 5.2, 5.3 and 5.4 respectively.

5.1 COMPLIANCE SUMMARY

A total of 44 conditions were identified in the EA that were evaluated. Twelfth (12) of these conditions were considered not applicable and 32 were considered applicable to the current phase of the project. Of the applicable conditions 31 were noted to be fully compliant, 1 partially compliant and 0 were non-compliant.

A total of 36 commitments were identified in the EMPr that were evaluated. Five (5) of these conditions were considered not applicable and 31 were considered applicable to the current phase of the project. Of the applicable conditions 26 were noted to be fully compliant, 2 partially compliant and 3 were non-compliant.

The level of compliance for each commitment was calculated according to the methodology described in section 4.2. Utilising this scoring system, **a total compliance score of 98.44% and 95.16% was obtained for the EA and the EMPr respectively.** A summary of the number of conditions of the EA and EMPr rated as Fully Compliant, Partially Compliant and Non-Compliant are presented Figure 2 and Figure 3 respectively.

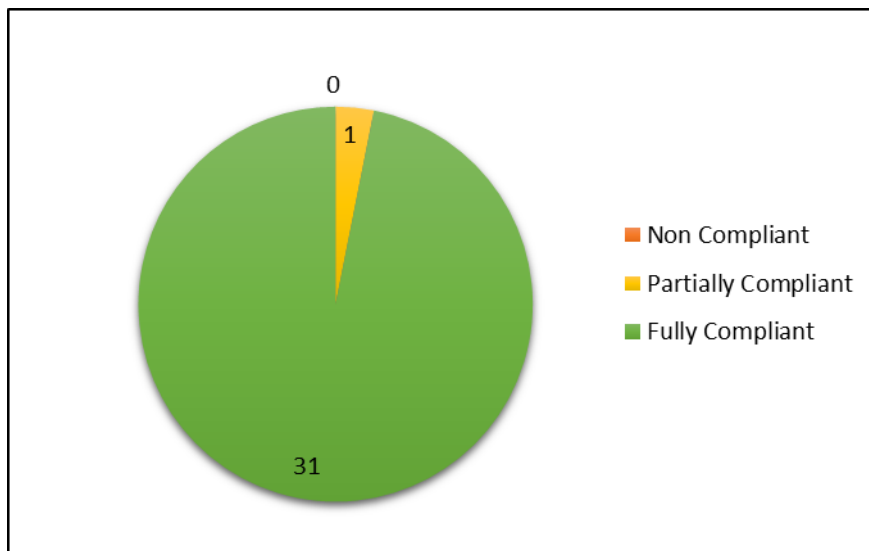


Figure 2: Distribution of compliance ratings for EA conditions.

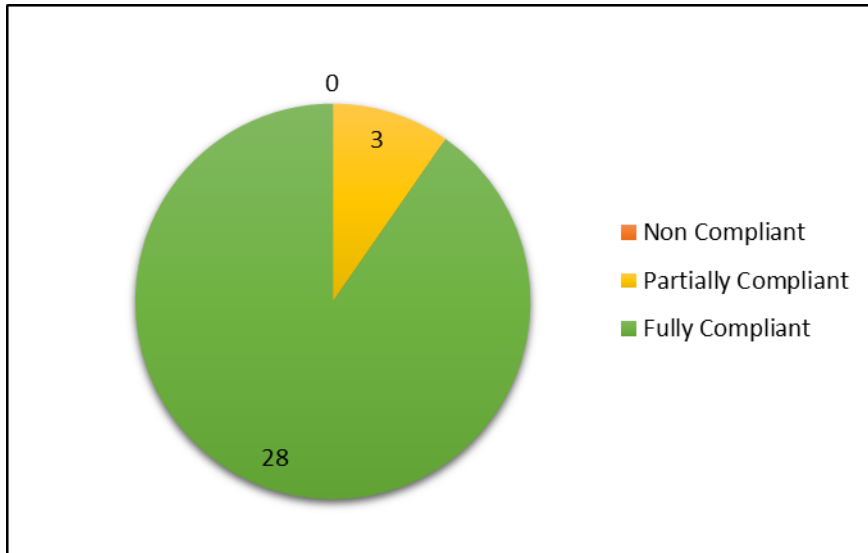


Figure 3: Distribution of compliance ratings for EMPr conditions.



5.2 COMPLIANCE EVALUATION

The compliance evaluation of the EA and EMPr are provided in Table 3 and Table 4. The conditions were rated according to the compliance evaluation criteria described in 4.2.

Table 3: Compliance evaluation of the EA conditions.

Ref #	Condition	Compliance Rating	Comments/ Verification
	Scope of the Authorisation		
1	The exploration well drilling in Block 2B off the West Coast of South Africa is approved as per the geographic coordinates above.	4	As per the End Of Well Report, Rev 0, Dated 16 February 2023 (WMI-001-AFZA-21-40), the well was drilled within the Licenced Block 2B and within the primary area of interest (A-J graben). Final location was 30°39'55.14"S 17°10'40.57"E.
2	Authorisation of the activity is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.	N/A	Statement. Noted.
3	The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.	4	A concerted effort was made to comply with the EA and EMPr.
4	The activities authorised may only be carried out at the property as described above.	N/A	Statement. Noted.
5	Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or	N/A	Statement. Noted.



Ref #	Condition	Compliance Rating	Comments/ Verification
	deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.		
6	This activity must commence within a period of five (05) years from the date of issue of this authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.	4	The commencement period of the Environmental Authorisation dated 24 August 2016 was extended for a period of two years from the date of expiry. (New Expiry Date: 23 August 2023). As per the End of Well Report, the well drilling rig arrived at location on 2 October 2022 and spudding of the well was done on 9 October 2022.
7	Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.	N/A	Statement. Noted.
8	The holder of the environmental authorisation must notify the competent authority of any alienation, transfer and change of ownership rights in the property on which the activity is to take place.	4	The holder of the EA informed the DMRE of the change in the details of the holders of the Environmental Authorisation on 20 May 2022.
	Notification of authorisation and right to appeal		
9	The holder of the authorisation must notify every registered interested and affected party, in writing and within 12 (twelve) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.	4	A notice of the granting of the EA and Amended EA was sent to registered I&APs on 29 August 2016 and 19 April 2021.
10	The notification referred to must- 10.1 specify the date on which the authorisation was issued; 102. inform the interested and affected parties of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment Regulations, 2010; 10.3. advise the interested and affected parties that a copy of the authorisation will be furnished on request; and 10.4. provide the reasons of the competent authority for the decision.	4	The notifications include the information as required by the EA.



Ref #	Condition	Compliance Rating	Comments/ Verification
11	<p>The holder of the authorisation must publish a notice —</p> <p>11.1 informing interested and affected parties of the decision;</p> <p>11.2 informing interested and affected parties where the decision can be accessed; and</p> <p>11.3 drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in the newspaper(s) contemplated and used in terms of regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.</p>	4	Notification was published within 3 newspapers: Plattelander, Die Burger and The Cape Times. The notifications included the information prescribed by the EA.
	Management of the activity		
12	The Environmental Management Programme (EMPr), submitted as part of the application for environmental authorisation is hereby approved and must be implemented during all phases of the activity. The EMPr will be seen as a dynamic document. However, any changes to the EMPr must be submitted to this Department, for approval before implementation.	4	Overall good EMPr compliance and record keeping was noted during the audit. Some records were however not supplied when requested as evidenced within the detailed audit checklist.
13	The EMPr must be included in all contract documentation for the activity.	4	Reference was made within the Standard Contract for Mobile Drilling Rig was made to Safety, Health, and Environmental compliance. Additionally, transmittal documentation was reviewed as evidence of transmittal of the required documentation, which included the EIA/EMPr and relevant HSE procedures.
14	The provisions of the EMPr are an extension to the conditions of the environmental authorisation and therefore non-compliance with the EMPr shall constitute non-compliance with the environmental authorisation.	N/A	Statement. Noted.
	Monitoring		
15	The holder of the authorisation must appoint an independent, experienced and qualified Environmental Control Officer (ECO) with experience or expertise	4	CapMarine was appointed to undertake visual and acoustic monitoring of marine fauna in accordance with the requirements



Ref #	Condition	Compliance Rating	Comments/ Verification
	in undertaking ECO functions. The ECO will have the responsibility to ensure that the conditions referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMPr.		of the EMPr for drilling operations. EIMS was appointed to undertake a close-out EA/EMPr audit at the end of the drilling operations. NRG was appointed to manage the project in line with the relevant requirements, including environmental compliance. These three appointments materially fulfil the functions of the ECO.
16	The ECO must be appointed before commencement of any authorised activities.	4	As per the Purchase Order for the MMO (AZSAL-038-001-001 Rev. 00), the MMO was appointed on 19 September 2023, before the commencement of the drilling operations. NRG and EIMS were involved since the planning phase of the drilling operations.
17	Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of this Department.	4	A meeting took place with PASA on 11 July 2022 where NRG was introduced to PASA, SAMSA and DFFE. The meeting covered the drilling plan and Oil Spill Contingency Plan.
18	The ECO must meet with the contractors' representatives to discuss the conditions of the EA and the contents of the EMPr prior to mobilisation.	4	NRG was involved during the planning phase with the preparation and approval of the relevant plans and procedures for the drilling operations. Various engagements were held between NRG and the drilling contractor to align procedures. It was reported that daily and weekly safety meetings were held on the rig during operations. Based on the review of the Weekly Safety Presentation 41/42 (17 October 2022) the requirements of the internal Environmental Management System and MMO was include in the presentation. These activities materially comply with the requirement of the EMPr.
19	The ECO must remain employed until the end of the exploration drilling demobilisation stage, and the exploration wells have been either suspended or decommissioned.	4	The MMO was present during the entire period of the drilling operations. NRG was involved during all phases of the project and EIMS undertook the post drilling Environmental Audit.
20	The duties of the ECO must include the following: 20.1. Keeping copies of the record of all environmental monitoring data as per the EMPr requirements, problems identified, transgressions noted, and a	4	NRG prepared daily drilling reports and a HSE Report and an End of Well Report. The MMO compiled daily reports as well as a final Marine Fauna Monitoring and Mitigation Report for the project.



Ref #	Condition	Compliance Rating	Comments/ Verification
	<p>schedule of tasks undertaken by the ECO and the on-board environmental representative.</p> <p>20.2. Keeping copies of the record of all incidents (including spillage of liquid waste, fuels, chemicals, or any other potentially hazardous material) and verifying that any complaints have been addressed, what rehabilitation measures were taken and what preventative measures were implemented to avoid re-occurrence of incidents/complaints.</p> <p>20.1. Keeping copies of the record of daily on-board observations.</p> <p>20.2. Keeping copies of all reports submitted to the Department.</p> <p>20.3. Keeping copies of the records of exploration activities including the monitoring of such activities.</p> <p>20.4. Obtaining and keeping copies of the record of all documentation, permits, licences and authorisations such as waste disposal certificates, etc. required by this facility.</p> <p>20.5. Compiling a monthly monitoring report.</p>		<p>The combination of these reports materially complies with the requirements of this condition.</p>
	<p>Recording and reporting to the Department</p>		
<p>21</p>	<p>The holder of the authorisation must keep all records relating to monitoring and auditing on site and make them available for inspection to any relevant and competent authority in respect of this development.</p>	<p>4</p>	<p>Documents were duly available during the audit and can be made available to the relevant authorities upon request. At the time of the audit, no “site” was relevant, and the reports were made available electronically by the holder. Transmittal records were available of the transfer of the relevant environmental documentation to the drilling contractor.</p>
<p>22</p>	<p>All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the Director: Compliance Monitoring at this Department.</p>	<p>N/A</p>	<p>Statement. Noted. Monitoring reports were mainly submitted to the PASA as the competent authority. DFFE was however also included during certain aspects such as notification and approvals.</p>



Ref #	Condition	Compliance Rating	Comments/ Verification
	Environmental audit report		
23	The holder of the authorisation must submit an environmental audit report to the Department within 30 days after completion of the establishment phase and within 30 days after demobilisation and exploration drilling completion.	2	This audit will aim to fulfil the requirements of an environmental audit, in line with the requirements of this EA, however it will only be submitted outside of the timeframes of the EA. Additionally, a HSE report was prepared by NRG that complies with some of the requirements of an audit report in terms of condition 24. This report was however also submitted outside of the timeframe specified in this condition of the EA.
24	<p>The environmental audit report must:</p> <p>24.1. Be compiled by the ECO or an independent environmental auditor;</p> <p>24.2. Indicate the date of the audit, the name of the auditor and the outcome of the audit;</p> <p>24.3. Evaluate compliance with the requirements of the approved EMPr and this environmental authorisation;</p> <p>24.4. Include measures to be implemented to attend to any non-compliances or degradation noted;</p> <p>24.5. Include copies of any approvals granted by other authorities relevant to the development for the reporting period;</p> <p>24.6. Highlight any outstanding environmental issues that must be addressed, along with recommendations for ensuring these issues are appropriately addressed;</p> <p>24.7. Include a copy of this authorisation and the approved EMPr;</p> <p>24.8. Include all documentation such as waste disposal certificates, hazardous waste landfill site licences etc. pertaining to this authorisation; and</p> <p>24.9. Include evidence of adherence to the conditions of this authorisation and the EMPr where relevant such as training records and attendance records.</p>	4	The combination of this NEMA Audit by EIMS and the HSE report from NRG materially complies with the requirements of this condition.



Ref #	Condition	Compliance Rating	Comments/ Verification
	Commencement of the activity		
25	The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.	4	The activity did not commence within 20 days of signature of the EA.
26	In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.	N/A	No appeals were reported.
27	The holder of the authorisation must ensure that no activity that requires a water use authorisation commences prior to a Water Use Authorisation being obtained from the Department of Water and Sanitation. A copy of the authorisation must be kept by the ECO.	-	A full compliance evaluation is beyond the scope of this audit, however, no clear indication that a Water Use Licence was required was observed.
	Notification to authorities		
28	A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes vessel mobilisation from port of origin for the establishment of the drilling unit. This notification period may coincide with the Notice of Intent to Appeal period, within which construction may not commence.	4	A meeting took place with PASA on 11 July 2022 where NRG was introduced to PASA, SAMSA and DFFE. The meeting covered the drilling plan and Oil Spill Contingency Plan. The date the vessel set sail for the drill site was 13 August 2022. Formal notification was sent to various stakeholders, including PASA, the DFFE and SAMSA on 23 August 2022. Approval was obtained from PASA for drilling operations to commence subject to approval of the Oil Spill Contingency Plan on 22 September 2022, after the original notification. The final oil spill contingency plan was submitted to the PASA on 3 October 2022, before the well was spud on 9 October 2022.
	Operation of the activity		



Ref #	Condition	Compliance Rating	Comments/ Verification
29	A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.	4	A meeting took place with PASA on 11 July 2022 where NRG was introduced to PASA, SAMSA and DFFE. The meeting covered the drilling plan and Oil Spill Contingency Plan. The date the vessel set sail for the drill site was 13 August 2022. Formal notification was sent to various stakeholders, including PASA, the DFFE and SAMSA on 23 August 2022. Approval was obtained from PASA for drilling operations to commence subject to approval of the Oil Spill Contingency Plan on 22 September 2022, after the original notification. The final oil spill contingency plan was submitted to the PASA on 3 October 2022, before the well was spud on 9 October 2022.
30	The holder of this authorisation must comply with the environmental requirements stipulated for the Operational Phase activities in the EMPr.	4	As per the compliance evaluation, the Operational Phase requirements of the EMPr were mostly complied with. Certain conditions were however rated as partially or non-compliant as detailed in the EMPr checklist.
31	An approved EMPr must form part of the contract with the engineering, procurement and exploration drilling and well services contractor appointed to drill the exploration wells and must be used to ensure compliance with environmental specifications and management measures.	4	Reference was made within the Standard Contract for Mobile Drilling Rig to Safety, Health and Environmental compliance. Additionally, transmittal documentation was reviewed as evidence of transmittal of the required documentation, which included the EIA/EMPr and relevant HSE procedures.
Site closure and decommissioning			
32	When the activity ceases and decommissioning and demobilisation is complete, the holder of the authorisation shall undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.	4	The well was abandoned in line with the requirements of the EA and EMPr.
Specific Conditions			



Ref #	Condition	Compliance Rating	Comments/ Verification
33	The holder of the authorisation must ensure that in an event where an archaeological site was not identified during the pre-drilling survey and evidence of archaeological / cultural material is identified during drilling activities, the South African Heritage Resource Agency, specifically the Maritime and Underwater Cultural Heritage unit, should be notified immediately. Activities at the specific site must cease until such time as further assessments have been conducted and approval to continue with such activities have been granted by a Maritime Archaeologist.	N/A	As per the End of Well Report, no evidence of archaeological or cultural material was observed during the drilling operations.
34	The holder of the authorisation must train safety representatives, managers and workers in the workplace about Health and Safety, environmental issues and the provisions of this EA and the EMPr prior to the commencement of the activity to ensure adherence to the relevant environment and Health and Safety Acts as well as to be able to act in an environmentally responsible manner. The exploration drilling process must be compliant with all safety and health measures as prescribed by the relevant act.	4	Various meetings were held with the Project Management Company (NRG), who performed the ECO functions, and the various contractors. One-on-one meetings took place between July and August 2022 and regular readiness meetings took place until 6 September 2022. From a Power Point Presentation for the pre-spud meeting on the 26th of August 2022, it was evident that the requirements of the Health, Safety and environmental and the provisions of the EA and EMPr were considered.
35	Before commencement, all required licenses must be obtained from relevant authorities.	-	Although the scope of this audit is not a full legal compliance audit, no additional licencing requirements were identified.
36	The drilling unit and all vessels must ensure compliance with the International Convention for the Prevention of Marine Pollution (MARPOL) 73/78 standards from Ships.	4	The MARPOL requirements was included in the EMPr. Ongoing monitoring/ auditing of the requirements of the EMPr was evident from the HSE meetings and HSE reports.
37	No well drilling activities are allowed outside of the defined area of interest and such area must be treated as "no-go" areas" for well drilling activities.	4	The well drilling operations took place inside of the area of interest.
38	Leakages of fuel such as diesel, oil etc. must be avoided at all times and if spillage occurs, it must be remedied immediately. Spill kits must be made available on-site for the clean-up of spills.	4	As per the Health Safety and Environmental (HSE) Report, 13 March 2023 (WMI-001-AFZA-21-42), no fuel spills occurred. Spill kits were available during the drilling operations.



Ref #	Condition	Compliance Rating	Comments/ Verification
39	Any oil spill that occurs should be recorded, including the species affected and the date. If repeated spills occur within the same area, further mitigation and avoidance measures must be implemented.	N/A	As per the HSE Report, 13 March 2023, no oil spill occurred.
40	No dumping or temporary storage of any goods, stocks and materials may take place on any other areas outside designated and demarcated laydown areas. These areas must be located within areas of low environmental sensitivity as indicated in the final EIAR dated April 2016.	4	As per the HSE Report, 13 March 2023, no environmental incidents occurred.
41	Hazardous substances must be stored in a bunded and designated area as described in the final EIAR in order to avoid accidental leakage into the environment.	4	As per the HSE Report, 13 March 2023, no environmental incidents occurred.
42	An integrated waste management approach must be implemented that is based on waste minimisation where waste is taken to shore, such disposal shall only occur at a landfill licensed in terms of the National Environment Management Waste Act, 2008 (Act 59 of 2008).	4	As per the HSE Report, 13 March 2023, Waste Busters was appointed to manage the waste from the rig at shore. Waste Busters are an accredited waste management service provider in terms of the City of Cape Town Municipal by-laws. The slops from the rig were disposed at Fuel 44 Oil Recycling Facility, which is licence as a H:H waste facility in terms of the NEM: WA.
	General		
43	A copy of this authorisation and the approved EMPr must be kept on board where the drilling unit activity will be undertaken. The authorisation and approved EMPr must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work on board the drilling unit.	4	Transmittal documents were provided where the EIA/ EMPr and relevant environmental documentation were provided to the drilling contractor.
44	National government, provincial movement, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his successor in title in any instance where	N/A	Statement. Noted.



Ref #	Condition	Compliance Rating	Comments/ Verification
	construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.		

Table 4: Compliance evaluation of the EMPr commitments.

Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.1		Planning Phase				
7.1.1	DRILLING TIMING / SCHEDULING	Since the probability and extent of shoreline oiling in the unlikely event of a blow-out is significantly influenced by the season in which drilling is undertaken, it is recommended that drilling be undertaken during the summer months.	4	Drilling took place from 9 October 2022 to 19 November 2022. As per the Marine Faunal Assessment Report prepared for the EIA, the summer season for the oil spill modelling was defined as October to March. As such, the drilling took place during the summer months, in terms of the EIA.	Prior to commencement of operation	Confirm drilling period
7.1.2	PREPARATION OF SUBSIDIARY PLANS	Ensure the following plans are prepared and in place: A project-specific Oil Spill Contingency Plan approved by competent authorities, namely the Petroleum Agency of South Africa, Department of Environmental Affairs (DEA): Coastal Pollution Management and South African Maritime Safety Authority (SAMSA); Shipboard Oil Pollution Emergency Plan (SOPEP) for support vessels as required by MARPOL;	4	A project specific Oil Spill Contingency Plan was in place (PRJ02728, Rev 01, 30/09/2022). Pollution Safety Certificate was issued by SAMSA (8769731, Dated 30 September 2022). Shipboard Oil Pollution Emergency Plans were available for the Island Innovator, Umhkuseli and MK Opal. An Emergency Response Plan (TOF/OPS/003(SMS/ERP/SA, Dated 26 September 2022), including a medivac plan was prepared from	Prior to commencement of operation	Confirm compliance and justify any omissions



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Emergency Response Plan (including MEDIVAC plan);</p> <p>South African Search and Rescue (SASAR) Manual;</p> <p>Waste Management Plan (see contents in Section 7.3.9); and</p> <p>Ballast Water Management Plan (see Section 7.3.8).</p> <p>In addition to the above, ensure that:</p> <p>Drilling unit has Pollution Safety Certificate(s) issued by SAMSA;</p> <p>There is adequate protection and indemnity insurance cover for oil pollution incidents;</p> <p>There is a record of the drilling units and support vessels' seaworthiness certificate and/or classification stamp; and</p> <p>Thombo is a member of or subscribes to Oil Spill Response Limited (OSRL) for the duration of the exploration drilling programme, so that it has ready access to the advanced well intervention and capping equipment available in Saldanha Bay.</p>		<p>the Helistop to the Springbok Airport.</p> <p>The South African Search and Rescue (SASAR) Manual is still a work in progress. The project used the Emergency Response Plan as an alternative.</p> <p>Waste Management Plan (WMI-001-AFZA-21-D37, Dated 12 July 2022) was available.</p> <p>Ballast Water Management Plan (IMO ID: 8769731, dated 13 May 2019) was approved by the Norwegian Maritime Authority and was valid until 28 September 2022. Postponement for 5-months was received from the Norwegian Maritime Authority on 28 September 2022.</p> <p>A Pollution Safety Certificate was issued for the Island Innovator (SB172/09/2022), valid from 30 September to 31 December 2022.</p> <p>The Tiered Response Oil Spill Contingency Plan (PRJ02728, dated 28/06/2022 and updated on 30/09/2022, prepared by OSRL was in place.</p>		
7.1.3	STAKEHOLDER CONSULTATION AND NOTIFICATION	<p>Compile the specific details of each drilling operation into a Drilling Notification document and submit to PASA and DEA. The notification should provide, inter alia, the details on the following:</p>	4	<p>The drilling notification document, which complies with the condition was sent on the 23rd of August 2022 to the following stakeholders: PASA, DFFE, SAMSA, SA Navy Hydrographic, Transnet Saldanha</p>	<p>30 days prior to commencement of operations or as required by PASA and / or DEA (now DFFE)</p>	<p>Confirm that notification was sent to PASA and DEA (now DFFE)</p> <p>Provide copies of all correspondence</p>



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Drilling programme (timing, co-ordinates and duration);</p> <ul style="list-style-type: none"> · Contractor details; <p>Drilling unit and support vessel specifications (including relevant certification and insurance);</p> <p>Oil Spill Contingency Plan and SOPEPs; and</p> <p>Emergency Response Plan.</p> <p>Notify relevant government departments and other key stakeholders of the proposed drilling programme (including navigational co-ordinates of well location, timing and duration of proposed activities) and the likely implications thereof (specifically the 500 m exclusion zone and the movement of support vessels). Stakeholders include:</p> <ul style="list-style-type: none"> > Fishing industry / associations: <ul style="list-style-type: none"> - South African Tuna Long-line Association; - South African Deep-sea Trawling Industry Association; - South African Tuna Association; - Fresh Tuna Exporters Association; - South African Commercial Linefish Association; - West Coast and Peninsula Commercial Skiboat Association; and - West Coast Rock Lobster Industry Association; > SAMSA; > South African Navy (SAN) Hydrographic office; 		<p>Bay, Transnet CPT, FishSA, DeBeers.</p>		



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>> Department of Agriculture, Forestry and Fisheries (DAFF), including the fisheries research managers, Deon Durholtz (DeonD@daff.gov.za) and Janet Coetzee (JanetC@nda.agric.za);</p> <p>> Transnet National Ports Authority (ports of Cape Town and / or Saldanha Bay); and</p> <p>> Overlapping / adjacent prospecting, exploration, mining and production right holders.</p> <p>Any dispute arising with overlapping / adjacent prospecting / exploration right holders should be referred to the Department of Mineral Resources and / or PASA for resolution.</p>				
7.1.4	PERMITS / EXEMPTIONS	<p>If necessary, apply to DEA for a permit or exemption to approach to or remain within 300 m of whales (see note below). The application for a permit or request for an exemption should be submitted to:</p> <ul style="list-style-type: none"> - Zintle Mapekula, email: zmapekula@environment.gov.za; or - Gcobani Popose, email: gpopose@environment.gov.za. <p>Notes:</p> <p>In terms of the Marine Living Resources Act, 1998 (No. 18 of 1998):</p> <p>No person may approach within 300 m of a whale by vessel, aircraft or other means without a permit;</p> <p>A vessel approached by a whale is required to distance itself at 300 m from</p>	2	No permit or exemption was provided at the time of the audit. It was reported by NRG that this is mainly applicable to whale watching vessels. No written confirmation was however available from the DFFE.	Prior to commencement of operations	Provide copy of permit / exemption



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		the whale, unless in possession of a permit; A vessel may not proceed directly through a school of dolphins or porpoises; and No person shall attempt to feed, harass, disturb or kill great white sharks, dolphins, seals or turtles.				
7.1.4	PERMITS / EXEMPTIONS	· If necessary, apply to the South African Heritage Resource Agency (SAHRA) (John Gribble, email: jgribble@sahra.org.za) to disturb any cultural heritage material (e.g. shipwrecks) older than 60 years. Refer to Section 7.2.5 with regard to the avoidance of historic shipwrecks. · Comply with any requirements specified by SAHRA.	N/A	As per the pre-drilling sonar survey report no cultural or heritage material was observed.	Prior to commencement of operations or when identified	Provide copy of permit / exemption
7.1.5	FINANCIAL PROVISION	Ensure that financial provision is in place to execute the requirements of the EMP. Financial provision is to be approved by PASA.	4	An Energy Package Insurance Policy is in place for the Period 21 August 2022 to 21 August 2022 for USD 75,000,000. Eco Atlantic Oil and Gas received an approval letter on 22 September 2022, indicating that the information submitted was approved by PASA and that the drilling operations can continue. It was assumed that the financial provision (insurance) was accepted as it was part of the batch of documents submitted.	Prior to commencement of operations	Confirm that financial provision for EMP has been put in place
7.2		Establishment Phase				



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.2.1	COMPLIANCE WITH EMP	<p>Ensure that a copy of the approved EMP and associated approvals are supplied to the Drilling Contractor and is on board the drilling unit and support vessels during the operation.</p> <p>Operator to commit organisation and Contractor to meet the requirements of the EMP.</p> <p>Ensure procedures and systems for compliance are in place.</p> <p>Ensure correct equipment and personnel are available to meet the requirements of the EMP.</p>	4	Transmittal Notes were reviewed where the EIA and associated approvals as well as procedures were transmitted to the drilling contractor on 1 and 3 October 2022. These were acknowledged on 2 and 3 October 2022.	Prior to commencement of operation	Ensure that a copy of the EMP report is provided to the Drilling Contractor and that an acknowledgment of receipt form is signed by the Contractor
7.2.2	ENVIRONMENTAL AWARENESS TRAINING	<p>Undertake Environmental Awareness Training to ensure the drilling unit's / vessel's personnel are appropriately informed of the purpose and requirements of the EMP.</p> <p>Ensure that responsibilities are allocated to personnel.</p>	4	Various meetings were held with the Project Management Company (NRG), who performed the ECO functions, and the various contractors. One-on-one meetings took place between July and August 2022 and regular readiness meetings took place until 6 September 2022. From a Power Point Presentation for the pre-spud meeting on the 26th of August 2022, it was evident that the requirements of the Health, Safety and environmental and the provisions of the EA and EMPr were considered. Weekly Crew HSE Meetings took place. The records show meeting for 16/10/2023, 23/10/2023, 6-7/11/2023 and 15-16/11/2023.	Prior to commencement of operation	Copy of attendance register and training records



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.2.3	NOTIFYING OTHER USERS OF THE SEA	Request, in writing, the SAN Hydrographic office to release Radio Navigation Warnings and Notices to Mariners throughout the drilling period. The Notice to Mariners should give notice of (1) the co-ordinates of the well location, (2) an indication of the proposed drilling timeframes, (3) an indication of the 500 m safety zone around the drilling unit, and (4) provide details on the movements of support vessels servicing the drilling operation. These Notices to Mariners should be distributed timeously to fishing companies and directly onto vessels where possible.	4	No concrete proof was provided that the SAN Hydrographic office was requested to release Radio Navigation Warnings and Notices to Mariners.	7 days prior to start	Confirm that request was sent to the SAN Hydrographic office
7.2.4	ENSURE INTEGRITY OF ANCHOR SYSTEM	Undertake and/or have in place the following in order to minimise environmental risk: A hazard identification and risk assessment document; The Contractor must apply relevant national codes and standards in accordance with good oil / gas field practice; The Contractor must operate in accordance with procedures laid down in the vessel's marine operations manual as approved by the relevant classification society; All anchor chains and anchors must be certified; and	4	No hazardous identification and risk assessments for the anchoring system was made available during the audit. The anchor and chain certificates were not provided.	Prior to and throughout drilling operations	Provide copies of relevant classification documents and certificates



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>The drilling unit and support vessels must be maintained to class standard throughout the project.</p>				
7.2.5	ANCHOR / WELL LOCATION TO AVOID TOPOGRAPHIC FEATURES / OBSTACLES	<p>Use data gathered from the seabed survey (see Section 7.3.5) and existing seismic data to conduct a pre-drilling geohazard analysis of the seabed and near-surface substratum in order to map and avoid any potentially significant topographic features (e.g. rocky outcrops), vulnerable habitats (e.g. hard grounds) and cultural heritage material (e.g. wrecks).</p> <p>Use a Remotely Operated Vehicle (ROV) to survey the seafloor prior to drilling in order to confirm the presence or absence of any significant topographic features, vulnerable habitats and / or species (e.g. cold-water corals, sponges) and cultural heritage material (e.g. wrecks) in the area.</p> <p>Adjust final well / anchor locations to avoid identified vulnerable habitats /</p>	4	<p>A seabed clearance survey was undertaken on 6 October 2022 and according to this survey, there appeared to be no major unidentified items of debris, visible or identifiable on sonar on the seabed.</p>	<p>Prior to drilling or as required</p>	<p>Copy of permit from SAHRA (if required) Provide Photographic evidence from ROV coverage</p>



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>communities and any identified or known shipwrecks.</p> <p>· Contact SAHRA regarding requirements to disturb any shipwrecks or any cultural heritage / archaeological material (see Section 7.1.4 for permit requirements). Any further activities in the directly affected area must cease until there has been compliance with any additional mitigation as specified by SAHRA.</p>				
7.2.6	DRILLING UNIT AND EQUIPMENT	Where practical and cost effective, dynamically positioned drill units should be used in preference to vessels requiring anchoring.	N/A	A drill unit was used that had to be anchored.	Prior to drilling	
7.2.6	DRILLING UNIT AND EQUIPMENT	Ensure all infrastructure (e.g. wellheads, Blow-out Preventers (BOPs) and guide bases) that has been used in other regions is thoroughly cleaned before use in South Africa.	4	Evidence was provided as part of the daily drill reports.	Prior to drilling	
7.3		Operational Phase				
7.3.1	ADHERENCE TO THE EMP AND ENVIRONMENTAL AWARENESS	<p>Comply fully with the EMP (compliance would mean that all activities were undertaken successfully, and details recorded).</p> <p>Undertake appropriate monitoring (as per specific topics) and track performance against objectives and targets. Document all activities and results for internal and external auditing. Subscribe to the principles of an internationally acceptable</p>	4	Overall good environmental management and EMPr compliance and record keeping was noted during the audit.	Throughout programme	Provide copies of records



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		Environmental Management System onboard the drilling unit and support vessels. This includes environmental awareness training, waste management and environmental monitoring, record keeping and continuous improvement.				
7.3.2	PREVENTION OF EMERGENCIES	<p>Prevent collisions by ensuring that the drilling unit and support vessels display correct signals by day and lights by night (including twilight), by visual radar watch and standby vessel(s).</p> <p>Maintain 500 m safety zone around drilling unit through Notices to Mariners and Navigation Warnings.</p> <p>Ensure that a support vessel, equipped with appropriate radar and communications, is kept on 24-hour standby in order to enforce the 500 m safety zone around the drilling unit.</p> <p>Maintain standard vessel watch procedures (also see Section 7.3.3).</p> <p>Ensure all hazardous materials are correctly labelled, stored, packed and sealed with proper markings for shipping.</p> <p>Practice weekly emergency response drills.</p> <p>Establish lines of communication with the following emergency response agencies / facilities: SAMSA, SAN Hydrographic Office (Silvermine), DEA (Directorate of Marine Pollution) and PASA.</p>	4	<p>As per the HSE Report. One Emergency Response Drill was undertaken on 9 October 2022 and one Environmental Accident Response exercise was undertaken on 3 November 2022. Additionally, according to the daily HSE Reports, HSE drills were undertaken on 29 October, 4 November, 13 November, 20 November and 29 November 2023.</p> <p>Movement logs were kept of movement within 500m of the drilling rig (Exclusion Zone).</p> <p>No environmental incidents were recorded with regards to Oil spills, Waste Management and PSV/ AHV.</p>	Throughout operation	<p>Provide record of any incidents and interaction with other vessels</p> <p>Provide records of emergency response drills</p>



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.3.3	CONTINUE TO COMMUNICATE WITH OTHER USERS OF THE SEA AND RESOURCE MANAGERS	<p>Through normal communication channels, Radio Navigation Warnings and Notices to Mariners, keep relevant government departments and other key stakeholders (see Section 7.1.3) updated on the drilling programme.</p> <p>Co-operate with other legitimate users of the sea to minimise disruption to other marine activities.</p> <p>Keep constant watch for approaching vessels during the drilling programme and warn by radio and support vessel, if required.</p> <p>Call, via radio, any vessel targets at a radar range of 24 nm from the drilling unit to inform them of the safety requirements around the drilling unit.</p> <p>Keep a record of any interaction with other vessels.</p>	4	Government departments and key stakeholders were updated on the drilling programme. See 7.1.3. Records were kept of approaching vessels. Although no third-party vessels were observed.	During operations as required	<p>Provide copies of written notices and list of those to whom it was sent</p> <p>Provide record of interaction with other vessels</p>
7.3.4	DEALING WITH EMERGENCIES INCLUDING MAJOR OIL SPILLS (owing to collision, vessel break-up, refuelling etc.)	<p>Adhere to obligations regarding other vessels in distress.</p> <p>Notify SAMSA (safety and pollution) and the Department of Finance (salvage, customs, royalties) about wrecked vessels. Provide location details to SAN Hydrographer.</p> <p>In the event of an oil spill immediately implement emergency plans (see Section 7.1.2). In the case of an oil spill to sea with serious potential consequences to marine and human life notify (a) the Principal Officer of the nearest SAMSA office, (b) the DEA's Chief Directorate of Marine & Coastal</p>	N/A	No incidents.	In event of spill	<p>Record of all spills (Spill Record Book), including spill reports; emergency exercise reports; audit reports.</p> <p>Incident log</p>



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Pollution Management in Cape Town, (c) PASA and (d) Smit Amandla Marine. Information that should be supplied when reporting a spill includes:</p> <ul style="list-style-type: none"> > Name and contact details of person reporting the incident; > The type and circumstances of incident, ship type, port of registry, nearest agent representing the ships company; > Date and time of spill; > Location (co-ordinates), source and cause of pollution; > Type and estimated quantity of oil spilled and the potential and probability of further pollution; > Weather and sea conditions; > Action taken or intended to respond to the incident; and <p>Support vessels must have the necessary spill response capability to deal with small to medium accidental spills in a safe, rapid, effective and efficient manner.</p> <p>Where diesel, which evaporates relatively quickly, has been spilled, the water should be agitated or mixed using a propeller boat/dinghy to aid dispersal and evaporation.</p>				
7.3.4 Cont.	DEALING WITH EMERGENCIES INCLUDING MAJOR OIL SPILLS Cont.	<p>Dispersants should not be used without authorisation of DEA.</p> <p>Dispersants should not be used:</p> <ul style="list-style-type: none"> > On diesel or light fuel oil. > On heavy fuel oil. 	N/A	No incidents were reported.	In event of spill	Record of all spills (Spill Record Book), including spill reports; emergency exercise reports;



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<ul style="list-style-type: none"> > On slicks > 0.5 cm thick. > On any oil spills within 5 nautical miles offshore or in depths less than 30 metres. > In areas far offshore where there is little likelihood of oil reaching the shore. Dispersants are most effective: <ul style="list-style-type: none"> > On fresh crude oils; under turbulent sea conditions (as effective use of dispersants requires mixing). > When applied within 12 hours or at a maximum of 24 hours. The volume of dispersant application should not exceed 20-30% of the oil volume. 				audit reports. Incident log
7.3.5	PRE-DRILLING SONAR SURVEY	<p>For a source level less than 190 dB re 1 µPa at 1 m:</p> <ul style="list-style-type: none"> > Appoint a MMO for the duration of the survey. The MMO should conduct visual scans for the presence of diving birds, marine mammals and/or turtles around the survey vessel prior to the initiation of any acoustic impulses; > Surveying must only commence (subject to the need for a “softstart”) once it has been confirmed for a 15-minute period (visually during the day) that there is no marine mammal, diving seabird and/or turtle activity within 500 m of the vessel. However, if after a period of 15 minutes cetaceans smaller than 3 m, seals and/or diving seabirds are still within 500 m of the vessel, the survey may commence; 	4	The underwater survey took place from 6 to 10 August 2021 and an MMO was appointed to conduct visual scans for the presence of diving birds, marine mammals and turtles around the survey vessel prior to and during the acoustic impulses. Two soft starts (20min) took place during the period. One during day one during the testing of the equipment and one on day two during the start of the survey. PAM technology was also used before the start of the survey. Based on the daily MMO reports, no non-compliances with the requirements of the EMPr were noted during the period.	Prior to and during surveys	MMO and PAM operator closeout reports (where applicable)



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>> Terminate the survey if marine mammals, diving seabirds and/or turtles show obvious negative behavioural changes within 500 m of the survey vessel or equipment. The survey should be terminated until such time it is confirmed that the identified animal(s) has moved to a point that is more than 500 m from the source or despite continuous observation or 15 minutes has elapsed since the last sighting of the identified animal(s) within 500 m of the source; and</p> <p>> PAM technology should be used if surveying is undertaken during the key cetacean migration and breeding period from the beginning of June to the end of November.</p> <p>For a source level greater than 190 dB re 1 μPa at 1 m the following should be implemented, in addition to the above:</p> <p>> A “soft start” procedure should be implemented after the pre-watch survey (see above) for a period of 20 minutes when initiating surveying. This requires that the sound source be ramped from low to full power rather than initiated at full power, thus allowing a flight response by diving birds, marine mammals and/or turtles to outside the zone of injury or avoidance. Where the equipment does not provide for a “soft start”, the equipment should be turned on and off over a 20-minute period to act</p>				



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>as a warning signal and allow the above-mentioned animals to move away from the sound source;</p> <p>> “Soft starts” should, as far as possible, be planned to commence within daylight hours; and</p> <p>> “Soft start” procedures must also be implemented after breaks in surveying (for whatever reason) of longer than 20 minutes. Breaks of shorter than 20 minutes should be followed by a “soft start” of similar duration.</p>				
7.3.6	BLOW-OUT PREVENTION	<p>· Fully inspect the BOPs on the drilling unit in accordance with the American Petroleum Industries recommended practices (or equivalent) prior to well drilling.</p> <p>Ensure that all responsible personnel are qualified in accordance with International Well Control Forum requirements or equal and are adequately trained in both accident prevention and immediate response.</p> <p>Follow written and internationally established procedures for well control. Identify hazards and put risk control systems in place.</p> <p>Implement monitoring and management measures in accordance with normal well control practise to assist in the detection and control of uncontrolled releases.</p>	4	As per the Detailed Design Document, the BOP meets or exceeds all the API S53 requirements for a subsea BOP for this well depth and well pressure.	Prior to and during drilling	Provide relevant certification and / or evidence of BOP inspection and application of risk control system



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.3.7	USE AND DISPOSAL OF DRILLING MUDS, CUTTINGS AND CEMENT	<p>Drilling fluids and cuttings: Maximise the use of water-based fluids (WBF) at all times, using risered non-aqueous drilling fluid (NADFs) only when necessary.</p> <p>Only low-toxicity and partially biodegradable Group III NADF should be used.</p> <p>If the extent of cuttings dispersion overlaps with any vulnerable seabed communities identified in the vicinity of the proposed well location the seabed survey data and / or ROV (see Section 7.2.5), innovative technologies and operational procedures for drilling solids discharges should be considered (e.g. the use of weighted mud when drilling top-hole sections to limit the extent of dispersion).</p> <p>Centrifuge the returning mud and cuttings stream to remove finer drilled particles.</p> <p>The treatment of NADF drill cuttings should aim to reduce their oil content to less than 5% of dry cuttings weight.</p> <p>Ensure regular maintenance of the onboard solids control package.</p> <p>The dispersion of the discharged cuttings should be aided by placing the cuttings chute at least 5 m below the sea surface.</p> <p>All recovered NADF should be stored on board and taken to shore for treatment and / or reuse.</p>	4	Records of waste were included in the HSE Report. The ROV images was provided.	During drilling operation	Provide estimates of actual volumes of muds, cuttings and cement disposed. Provide photographic evidence from ROV coverage



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Where they are used ROV's should obtain video footage of the seabed before and after drilling operations to assess the status of cuttings disposal on the benthos.</p> <p>Cement: Ensure only low-toxicity and partially biodegradable cement additives are used.</p> <p>Avoid excess cement usage by using a ROV to monitor discharges to the seafloor around the drill casing.</p>				
7.3.8	DISPOSAL OF BALLAST WATER	<p>Implement a Ballast Water Management Plan (see Section 7.1.2).</p> <p>De- and re-ballasting of vessels must be undertaken only under strict adherence to International Maritime Organisation (IMO) Guidelines governing discharge of ballast waters at sea (Guideline A.868(20)).</p> <p>Avoid unnecessary discharge of ballast water.</p> <p>Whenever possible, conduct the exchange of ballast water at least 200 nm from the nearest land and in water of at least 200 m depth. Where this is not feasible, the exchange should be as far from the nearest land as possible, and in all cases a minimum of 50 nm from the nearest land and preferably in water at least 200 m in depth. Thus in terms of these guidelines, the drilling unit and support vessels would be required, if necessary, to exchange ballast water</p>	2	<p>A Ballast Water Management Plan (IMO ID: 8769731, dated 13 May 2019) was approved by the Norwegian Maritime Authority and was valid until 28 September 2022 (International Ballast Water Certificate, LCDQ, Dated 15 August 2017). A postponement of 5-months was provided to the Island Innovator to install the Ballast Water Treatment System and re-apply for the advancement of the anniversary date of the certificate. Ballast Water de-ballast to transit draft took place on 13 August 2022. Ballast to operation draft took place on 2 to 3 October 2022 and de-ballast to transit took place on 28 November 2022. The October and November exchanges took place within South African waters, less than 14 nm from the nearest</p>	Throughout drilling operation	Provide estimates of actual volumes of ballast water disposed distance and water depth ballast water was disposed



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>outside of the area of interest for well drilling.</p> <ul style="list-style-type: none"> · Other precautionary guidelines suggested by the IMO include: <ul style="list-style-type: none"> > During the loading of ballast, every effort should be made to avoid the uptake of potentially harmful aquatic organisms, pathogens and sediment that may contain such organisms, through adequate filtration procedures; > Where practicable, routine cleaning of the ballast tank to remove sediments should be carried out in mid-ocean or under controlled arrangements in port or dry dock, in accordance with the provisions of the ship's ballast water management plan; and > Avoidance of unnecessary discharge of ballast water. 		land and within water depth of 150 m. It was reported by NRG that it is not possible to ballast away from location due to safety reasons.		
7.3.9	POLLUTION CONTROL AND WASTE MANAGEMENT of products disposed of into the air (exhausts, CFCs and incinerators), to sea (sewage, food, oils), to land (used oils etc, metals, plastics, glass, etc.)	<p>Implement a Waste Management Plan (see Section 7.1.2). The plan must comply with legal requirements (including MARPOL) for waste management and pollution control (for air and water quality levels at sea) and ensure "good housekeeping" and monitoring practices:</p> <ul style="list-style-type: none"> > General waste: <ul style="list-style-type: none"> - Initiate a waste minimisation system. - No disposal overboard. - Ensure on-board solid waste storage is secure. - Transport ashore for disposal. Retain waste receipts. 	4	A waste management plan was in place (WMI-001-AFZA-21-D37, dated 12 July 2022). The HSE Report provided a summary of waste disposal, incidents and destination of waste.	Throughout drilling operations	Provide summary of waste record book / schedule and receipts Report occurrence of minor oil spills and destination of wastes



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Note: Incineration would require an Atmospheric Emissions Licence.</p> <p>> Galley (food) waste:</p> <ul style="list-style-type: none">- No disposal within 3 nm of the coast.- Disposal between 3 nm and 12 nm needs to be comminuted to particle sizes smaller than 25 mm.- Disposal beyond 12 nm requires no treatment.- Minimise the discharge of waste material should obvious attraction of fauna be observed. <p>> Deck drainage:</p> <ul style="list-style-type: none">- Deck drainage should be routed to a separate drainage system (oily water catchment system).- Ensure all process areas are bunded to ensure drainage water flows into the closed drainage system.- Use drip trays to collect run-off from equipment that is not contained within a bunded area and route contents to the closed drainage system.- Ensure that weather decks are kept free of spillage.- Mop up any spills immediately with biodegradable low toxicity detergents.- Low-toxicity biodegradable detergents should be used in cleaning of all deck spillage.- Ensure compliance with MARPOL standards (15 ppm).				



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
7.3.9 Cont.	POLLUTION CONTROL AND WASTE MANAGEMENT of products disposed of into the air (exhausts, CFCs and incinerators), to sea (sewage, food, oils), to land (used oils etc, metals, plastics, glass, etc.) Cont.	<ul style="list-style-type: none"> > Machinery space drainage: Vessels must comply with international agreed standards regulated under MARPOL. All machinery space drainage would pass through an oil/water filter to reduce the oil in water concentration to less than 15 ppm. > Sewage: <ul style="list-style-type: none"> - Use approved treatment plants to the MARPOL standards. - No disposal within 4 nm of the coast. - Disposal between 4 nm and 12 nm needs to be comminuted and disinfected prior to disposal into the sea. - Disposal beyond 12 nm requires no treatment. > Medical waste: Seal in aseptic containers for appropriate disposal onshore. > Metal: Send to shore for recycling or disposal. > Other waste: Transport ashore for disposal. Retain waste receipts. Ensure waste disposal is carried out in accordance with appropriate laws and ordinances. Note: Incineration would require an Atmospheric Emissions Licence. > Waste oil: Return used oil to a port with a registered facility for processing or disposal. > Wastewater: Comply with MARPOL. > Minor oil spill: Use oil absorbent. > Emissions to the atmosphere: 	4	A waste management plan was in place (WMI-001-AFZA-21-D37, dated 12 July 2022). The HSE Report provided a summary of waste disposal, incidents, and destination of waste.	Throughout drilling operations	Provide summary of waste record book / schedule and receipts Report occurrence of minor oil spills and destination of wastes



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<ul style="list-style-type: none"> - Comply with MARPOL Annex VI, which limits the main air pollutants contained in ships exhaust gas and prohibits deliberate emissions of ozone depleting substances. - Properly tune and maintain all engines, motors, generators and all auxiliary power to contain the minimum of soot and unburned diesel. - Implement leak detection and repair programmes for valves, flanges, fittings, seals, etc. > Other hazardous waste: <ul style="list-style-type: none"> - Record types and volumes of chemical and hazardous wastes (e.g. radioactive devices/materials, neon lights, fluorescent tubes, toner cartridges, batteries, etc.) and destination thereof. - Send to designated onshore hazardous disposal site. Retain waste receipts. · Ensure all crew is trained in spill management. 				
7.3.10	WELL TESTING	<p>Use a high-efficiency flare to maximise combustion of hydrocarbons.</p> <p>Only the minimum volume of hydrocarbons required for the test should be flowed, without compromising safety.</p> <p>Reduce well test durations to the extent practical.</p> <p>Maximise flare combustion efficiency by controlling and optimising flare fuel/air/stream flow rates.</p>	N/A	Exploration well was dry.	During well testing	Quantity of oil / gas burned



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>Minimise the risk of pilot blow-out by ensuring sufficient exit velocity and providing wind guards.</p> <p>Where appropriate, use a high integrity instrument pressure protection system to reduce over pressure events.</p> <p>Minimise liquid carry over and entrainment in the flare stream using a suitable liquid separation system.</p> <p>Minimise flame lift off and / or flame lick.</p> <p>Monitor and control odour and visible smoke emissions (no visible black smoke).</p> <p>Use well control procedures to ensure that there are no discharges to the sea.</p> <p>For each drillstem flow test, provide an estimate of the volume of any oily discharge into the sea and the size of the resulting slick / sheen.</p>				
7.3.11	TRANSPORT, STORAGE AND HANDLING OF RADIOACTIVE DEVICES	<p>Comply with necessary regulations and licence requirements for the transport, storage and handling of radioactive devices.</p> <p>Transport and store radioactive devices in specially designed secured (locked) storage containers.</p> <p>Designate competent person/s in charge and to handle the radioactive devices.</p> <p>Follow strict approved procedures when handling the devices. Wear personal monitoring devices to measure any unusual exposure.</p> <p>Follow radioactive sources procedure.</p> <p>When radioactive sources are to be</p>	4	<p>A procedure was in place for the Handling of Explosives and Radioactive Materials (L4-MODU-INN-D-PR-106, Rev. 2, dated 22 June 2022). Audits of the Wireline Logging activity was undertaken on 3 October and 17 November 2022 by AfriQA and these audits included Radiation Storage and Handling. No findings relating to Radiation Material Handling and Storage were recorded within these audit reports.</p>	Throughout drilling operations	Provide copy of licence(s) and results from routine tests on radioactive sources to determine leak levels



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>used, secure the area between and around the storage containers and the floor and only allowed key personnel in the area.</p> <p>Set up incident and emergency reporting procedures for actual or suspected individual over-exposure, theft or loss, logging tools stuck downhole in wells, and release or spillage into the environment.</p> <p>Routinely test the sources according to industry requirements to document leak levels.</p>				
7.3.12	EQUIPMENT LOSS	<p>Keep a record of lost equipment and all items lost overboard and not recovered. When any items that constitute a seafloor or navigational hazard are lost on the seabed, or in the sea, complete a standard form / record sheet, which records the location, date and cause of loss, details of equipment type, weather, sea state, etc.</p> <p>Notify SAMSA and SAN Hydrographer. Request that SAN Hydrographer send out a Notice to Mariners with this information.</p>	4	<p>Only one incident of items lost overboard was recorded. An anchor chain was lost overboard at the port in Cape Town, but it was indicated that it was recovered.</p>	Throughout drilling operation	<p>Provide a list of lost equipment and a copy of record sheet</p>
7.3.13	USE OF AIRCRAFTS / HELICOPTERS for crew changes, servicing, etc.	<p>Establish, with pilots, flight paths that do not pass over coastal reserves (MacDougall's Bay), seal colonies (Kleinzee and Strandfontein Point), bird colonies (Bird Island at Lambert's Bay) or Important Bird Areas (Olifants River Estuary, Velorenvlei, Lower Berg River</p>	2	<p>Based on the flight reports for October and November 2022 from Titanoffshore (Pty) Ltd, flights were mainly between the Island Innovator and either, Alexander Bay, Springbok or Cape Town. A letter was provided by the subcontractor indicating that the</p>	As required	<p>Submit copy of set flight path. Report deviations from set flight paths.</p>



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<p>wetlands and the West Coast National Park and Saldanha Bay Islands).</p> <p>Low altitude coastal flights (<2 500 ft and within 1 nm of the shore) should also be avoided, particularly during the winter/spring (June to November inclusive) whale migration period and during the November to January seal breeding season. The flight path between the onshore logistics base in Kleinzee or Hondeklipbaai and drilling unit should be perpendicular to the coast.</p> <p>Brief all pilots on ecological risks associated with flying at a low level along the coast or above marine mammals.</p> <p>Comply with aviation and authority guidelines and rules.</p> <p>Report deviations from set flight plans.</p>		reserves were avoided, and the CAA requirements were complied with. No detailed flight path and flight path deviation report were however provided to determine compliance with the detailed condition of the EMPr.		
7.3.14	OIL BUNKERING / REFUELLING AT SEA	<p>No discharge of any oil whatsoever is permitted within 50 nm of the coast.</p> <p>Transfer of oil at sea is not permitted within the economic zone (i.e., 200 nm from the coast) without the permission of the Minister or delegated authority (namely SAMSA). In terms of the Marine Pollution (Control and Civil Liability) Act, 1981 a Pollution Safety Certificate must be obtained before commencement of operations.</p> <p>Submit an application in terms of Regulation 14 (Regulation under the Prevention and Combating of Pollution</p>	4	Approval was obtained from SAMSA on 19 November for an STS Bunker Fuel Transfer on the west coast between 20 and 30 November 2022. As per the HSE report, no spillages were experienced.	As required, 5 days prior to refuelling	Confirm that a notice was sent to SAMSA



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		of the Sea by Oil Act) to SAMSA (Principal Officer) at the port nearest to where the transfer is to take place. Inform SAMSA of location, supplier and timing, 5 days prior to refuelling at sea.				
7.3.15	DRILLING UNIT LIGHTING	Minimise non-essential lighting to reduce nocturnal attraction. However, such measures should not undermine work safety aspects or concerns. Implement a monitoring programme of faunal attraction where all faunal injuries and mortalities are logged.	4	A Marine Fauna Monitoring Protocol is in place which include cetaceans (i.e., dolphins and whales), turtles, penguins and large aggregations of diving seabirds (Cape gannets and/or Cape cormorants). As per the Marine Fauna Monitoring and Mitigation Close-Out Report (Capricorn Marine Environmental, 25 January 2022) no mortalities of monitored faunal species were observed.		Results of faunal monitoring
7.4		Decommissioning and Closure Phase				
7.4.1	SUSPENSION OR ABANDONMENT OF WELLS	General: > Seal well by inserting cement plugs in the well bore at various levels according to good oilfield practice. Record volume of cement discharged on seafloor. > Test well integrity. > Remove BOPs. Suspended wells: > Place a corrosion cap over wellhead to facilitate re-entry. > Notify the SAN Hydrographer regarding the positions of any suspended wells on the seafloor so that the positions can be charted. Abandoned wells:	4	Evidence of abandonment and the quantity of drilling fluids and cement were presented in the HSE Report.	On completion of well drilling	Quantity of cement discharged on seafloor Provide copies of correspondence with SAN Hydrographer



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		<ul style="list-style-type: none"> > Cut casings approximately 3 m below the seafloor. > Remove wellhead from seafloor. 				
7.4.2	DRILLING UNIT / VESSELS TO LEAVE AREA	Ensure that no construction debris or dropped equipment that may be detrimental to environment or other users of the sea is left on the seafloor.	4	As per the information and images in the HSE report, this condition was rated as compliant.	On completion of well drilling	Confirm through seabed scan and/or video
7.4.3	INFORM RELEVANT PARTIES OF SURVEY COMPLETION	Inform all key stakeholders (see Section 7.1.3) that the drilling unit and support vessels are off location.	4	Notification of the completion of drilling was sent out on 28 November 2022.	Within two weeks after completion of drilling	Copies of notification documentation required
7.4.4	FINAL WASTE DISPOSAL	Dispose all waste retained onboard at a licensed waste site using a licensed waste disposal contractor. All recovered NADF should be stored onboard and taken to shore for treatment and reuse.	4	Waste disposal was reported within the HSE Report. As per this report. Waste was disposed by licenced waste management contractors.	When drilling unit / support vessels are in port	Waste receipt required from contractor
7.4.5	COMPILE WELL DRILLING "CLOSEOUT" REPORT	Compile an exploration drilling "Close-out" Report for each well based on the monitoring undertaken during drilling. Provide information / records as indicated in the "Close-out" Report column of the EMP within 90 days of the drilling operation or as required by PASA and / or DEA. Provide copy of report to PASA and DEA. Provide a copy of any video footage that was shot during the course of the drilling operation to PASA, if requested.	4	An End of Well Report and HSE Report was prepared for the Project. These reports and additional records materially comply with the requirements of the "Close-out" Report.	On completion of each well	
7.4.6	INFORMATION SHARING	Take steps to share data collected during the drilling programme (e.g., ROV video footage of the benthic environment), if requested, to resource managers (including DEA, South African National	4	Information was available, if requested.	As requested.	



Ref #	Aspect	Condition	Compliance Rating	Comments/ Verification	Timing	Requirement for Closure
		Biodiversity Institute and appropriate research institutes).				



5.3 FINDINGS OF THE AUDIT

From the compliance evaluation, four non-compliances were raised against the requirements of the EA/EMPr as described in Table 5.

Table 5: List of non-compliances raised during the audit.

No.	Reference	Requirement	Description
1	EA Condition 23	The holder of the authorisation must submit an environmental audit report to the Department within 30 days after completion of the establishment phase and within 30 days after demobilisation and exploration drilling completion.	This audit will aim to fulfil the requirements of an environmental audit, in line with the requirements of this EA, however it will only be submitted outside of the timeframes of the EA (More than 30 days after demobilisation) . Additionally, a HSE report was prepared by NRG that complies with some of the requirements of an audit report in terms of condition 24 of the EA. This report was however also submitted outside of the timeframe specified in this condition of the EA.
2	EMPR Condition 7.1.4	<p>If necessary, apply to DEA for a permit or exemption to approach to or remain within 300 m of whales (see note below).</p> <p>Notes:</p> <p>In terms of the Marine Living Resources Act, 1998 (No. 18 of 1998):</p> <p>No person may approach within 300 m of a whale by vessel, aircraft or other means without a permit;</p> <p>A vessel approached by a whale is required to distance itself at 300 m from the whale, unless in possession of a permit;</p> <p>A vessel may not proceed directly through a school of dolphins or porpoises; and</p> <p>No person shall attempt to feed, harass, disturb or kill great white sharks, dolphins, seals or turtles.</p>	No permit or exemption to approach or remain within 300m of whales was provided at the time of the audit. It was reported by NRG that this requirement is mainly applicable to whale watching vessels. No written confirmation was however available from the DFFE.
3	EMPR Condition 7.3.8	Whenever possible, conduct the exchange of ballast water at least 200 nm from the nearest land and in water of at least 200 m depth. Where this is not feasible, the exchange should be as far from the nearest land as possible, and in all cases a minimum of 50 nm from the nearest land and preferably in water at least 200 m in depth. Thus, in terms of these guidelines, the drilling unit and support vessels would be required, if necessary, to exchange	Ballast Water de-ballast to transit draft took place on 13 August 2022. Ballast to operation draft took place on 2 to 3 October 2022 and de-ballast to transit took place on 28 November 2022. The October and November exchanges took place within South African waters, less than 14nm from the nearest land and within water depth of 150m. It was reported by NRG that it is not possible to ballast away from location due to safety reasons.



No.	Reference	Requirement	Description
		ballast water outside of the area of interest for well drilling.	
4	EMPR Condition 7.3.13	<p>Establish, with pilots, flight paths that do not pass over coastal reserves (MacDougall's Bay), seal colonies (Kleinzee and Strandfontein Point), bird colonies (Bird Island at Lambert's Bay) or Important Bird Areas (Olifants River Estuary, Velorenvlei, Lower Berg River wetlands and the West Coast National Park and Saldanha Bay Islands).</p> <p>Low altitude coastal flights (<2 500 ft and within 1 nm of the shore) should also be avoided, particularly during the winter/spring (June to November inclusive) whale migration period and during the November to January seal breeding season. The flight path between the onshore logistics base in Kleinzee or Hondeklipbaai and drilling unit should be perpendicular to the coast.</p> <p>Brief all pilots on ecological risks associated with flying at a low level along the coast or above marine mammals.</p> <p>Report deviations from set flight plans.</p>	<p>Based on the flight reports for October and November 2022 from Titanoffshore (Pty) Ltd, flights were mainly between the Island Innovator and either, Alexander Bay, Springbok or Cape Town. A letter was provided by the contractor which confirmed that the relevant reserves were avoided, and the CAA requirements were complied with. No detailed flight path and flight path deviation report were however provided to verify compliance with the detailed condition of the EMPr.</p>

5.4 CONTINUED ADEQUACY OF THE EMPr

The continued adequacy of the EMPr is discussed in this section of the report.

5.4.1 NEW IMPACTS IDENTIFIED

Based on the review of the requirement of the EMPr, no new impacts were identified.

5.4.2 EFFECTIVENESS OF THE EMPr

Based on the information review, the EMPr is currently considered adequate and effective to manage and mitigate the applicable activity and impacts.

5.4.3 SHORTCOMINGS IN THE EMPr

Based on the information reviewed during this audit, it is the auditor's interpretation that the EMPr did not have any shortcomings.

5.4.4 RECOMMENDATIONS

It is recommended that the organisation must undertake the activities in line with the requirements of the EMPr.

6 CONCLUSION

EIMS was appointed by Azinam to undertake the Environmental Audit to assess compliance with the conditions of the EA and EMPr. Based on the evaluation criteria described in Section 4.2, **a total compliance score of 98.44% and 95.16% was obtained for the EA and EMPr respectively. Four non-compliance findings were raised from**



the compliance evaluation. Based on the audit, the EMPr is considered adequate and effective to manage and mitigate the activity and impacts.

The organisation should be reminded of the requirements of Regulations 34 of the EIA Regulations, 2014 with regards to findings of the adequacy of the EMPr and access to the audit report. Regulation 34 states:

- 4) *“Where the findings of the environmental audit report contemplated in sub-regulation (1) indicate-*
- a) insufficient mitigation of environmental impacts associated with the undertaking of the activity; or*
 - b) insufficient levels of compliance with the environmental authorisation or EMPr and, where applicable the closure plan;*
- the holder must, when submitting the environmental audit report to the competent authority in terms of sub-regulation (1), submit recommendations to amend the EMPr or closure plan in order to rectify the shortcomings identified in the environmental audit report.*
- 5) *When submitting recommendations in terms of sub-regulation (4), such recommendations must have been subjected to a public participation process, which process has been agreed to by the competent authority and was appropriate to bring the proposed amendment of the EMPr and, where applicable the closure plan, to the attention of potential and registered interested and affected parties, including organs of state which have jurisdiction in respect of any aspect of the relevant activity and the competent authority, for approval by the competent authority.*
- 6) *Within 7 days of the date of submission of an environmental audit report to the competent authority, the holder of an environmental authorisation must notify all potential and registered interested and affected parties of the submission of that report, and make such report immediately available-*
- a) to anyone on request; and*
 - b) on a publicly accessible website, where the holder has such a website.”*

7 ASSUMPTIONS, LIMITATIONS AND GAPS IN KNOWLEDGE

The following assumptions, limitations and gaps in knowledge apply to the audit:

- The information contained in this report was sourced from information and data supplied by third parties that is assumed to be complete, valid and true.
- This report is based on information available at the time of the assessment. The information, data, observations and evidence on what this report is based is beyond the control of EIMS and may change without notice. EIMS will not be liable for any loss or damage which may arise directly or indirectly because of such changes.
- Where reference is made to legislation or other statutory provisions in this report the original legislation or other statutory provisions will always take precedence and the reader is directed to revert to the original legislation or statutes.