



Risk – Based Solutions (RBS) CC

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Mr. Timo Mufeti
Environmental Commissioner
Ministry of Environment, Forestry and Tourism
Department of Environmental Affairs and Forestry
Private Bag 13306
WINDHOEK, NAMIBIA

25th July 2023

Through the Competent Authority

Ms. Maggy Shino
Petroleum Commissioner
Department of Petroleum Affairs
Ministry of Mines and Energy (MME)
1 Aviation Road Windhoek
Private Bag 13297
WINDHOEK, NAMIBIA



Dear Mr Mufeti and Ms. Shino,

Subject: Application for Amendment of the Current Granted Environmental Clearance Certificate (ECC) APP No. 3794 for the Proposed Multiclient or Proprietary 2D/3D Seismic Survey by Searcher Geodata UK in the Orange Basin Offshore, Southern Namibia

Please find attached to this cover letter the updated Environmental Impact Assessment (EIA) and updated Environmental Management Plan (EMP) Reports and proof of application for amendment of the Environmental Clearance Certificate (ECC) APP No. 3794 submitted to the MEFT through the MME as the Competent Authority for your inputs to be submitted to the Environmental Commissioner in MEFT. Searcher Geodata UK Ltd, the Proponent is applying to amend its current granted ECC APP No. 3794 to include the following:

- (i) To include the initially excluded 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A, Orange Basin, offshore Namibia to the current ECC Area of Interest (AOI), and.
- (ii) To amend the title of the current ECC to reflect the proposed area to be included under (i) and add the words Proprietary and 2D seismic survey. The new title of the amended ECC shall read as follows:

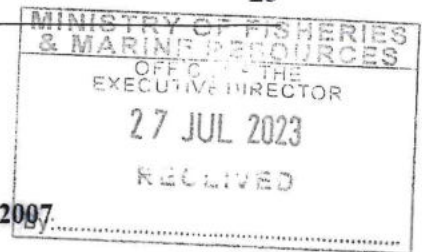
Proposed Multiclient or Proprietary 2D/3D Seismic Survey by Searcher Geodata UK Ltd over the Area of Interest (AOI) / Operational area covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A (Including the 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A) and 2915 (Excluding Tripp Seamount), Orange Basin, Southern Offshore, Namibia.

The proposed deepwater seismic survey operations are aimed at supporting the ongoing oil and gas exploration operations in the Orange Basin following on the oil and gas discoveries discovery made by TotalEnergies in Petroleum Exploration License (PEL) 56 covering Blocks 2912 and 2913B and Shell Upstream Namibia BV in PEL 39 covering Blocks 2913A and 2913B.



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Dr Sindila Mwiya
EIA/ Permitting Advisor /International Resources Consultant
Risk-Based Solutions (RBS) CC

Form 2



REPUBLIC OF NAMIBIA
ENVIRONMENTAL MANAGEMENT ACT, 2007

(Section 39)

APPLICATION FOR AMENDMENT OF CONDITIONS OF ENVIRONMENTAL
 CLEARANCE CERTIFICATE

MEFT ECC APPLICATION
REFERENCE No.: APP-003794



A. PARTICULARS OF APPLICANT

Name of Applicant: Searcher Geodata UK Ltd

Application for Amendment of the Environmental Clearance Certificate (ECC) APP No. 3794 to reflect the following new ECC Title:

Proposed Multiclient or Proprietary 2D/3D Seismic Survey by Searcher Geodata UK Ltd over the Area of Interest (AOI) / Operational area covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A (Including the 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A) and 2915 (Excluding Tripp Seamount), Orange Basin, Southern Offshore, Namibia.

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E-mail Address: smwiya@rbs.com.na

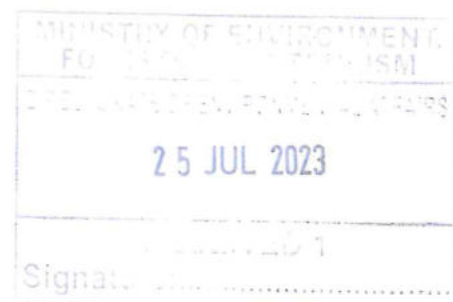
Name of Contact Person: Dr Sindila Mwiya (EAP)

Telephone Number: (061) 306058

Cell phone Number: +264-811413229

Fax Number: +264-886561821

E-mail Address: smwiya@rbs.com.na



B. PARTICULARS OF CURRENT ENVIRONMENTAL CLEARANCE CERTIFICATE

1. Name of current holder Environmental clearance certificate: [Searcher Geodata UK Ltd](#)
2. Date of issue of current Environmental Clearance Certificate (ECC): [The current ECC APP No. 3794 was granted on the 8th September 2022 and will expire on the 8th September 2025.](#)

PART C PROPOSED AMENDMENTS TO THE CONDITIONS IN CURRENT

1. Condition(s) in the Current Environmental Clearance certificate:
The Conditions in the Current Environmental Clearance Certificate are detailed in the Notification of the Decisions (See Attached copy of the ECC) covering the following:
 - ❖ C1: Condition of Approval covering C1 (1) to C1 (3).
 - ❖ C2: ECC validity covering C2 (1) to C2 (4).
 - ❖ C3: Complacence with authorisations under other laws covering C3 (5), and.
 - ❖ C4: Implementation and Monitoring covering C4 (6) to C4 (18)
2. Proposed Amendment(s):
 - (i) To include the initially excluded 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A, Orange Basin, offshore Namibia to the current ECC Area of Interest (AOI).
 - (ii) To amend the title of the current ECC to reflect the proposed area to be included under (i) and add the words Proprietary and 2D seismic survey. The new title of the amended ECC shall read as follows:

Proposed Multiclient or Proprietary 2D/3D Seismic Survey by Searcher Geodata UK Ltd over the Area of Interest (AOI) / Operational area covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A (Including the 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A) and 2915 (Excluding Tripp Seamount), Orange Basin, Southern Offshore, Namibia.
3. Reason for Amendment(s):
 - (i) To include the initially excluded 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A, Orange Basin, offshore Namibia to the current ECC Area of Interest (AOI) so that the Proponent or the License holder can acquire both 2D and 3D seismic survey data sets over this small area that was initially excluded from the AOI.

- (ii) To amend the title of the current ECC to reflect the proposed area to be included under (i) and add the words Proprietary and 2D seismic survey. The addition of the word Proprietary will provide clarity on the fact that an ECC granted to a Proponent who is a seismic contractor may be used to acquire both Multiclient and Proprietary (Exclusive) seismic survey, on conditions that all the contractual arrangements and data ownership requirements among the various parties involved in the partnership including the Government have been agreed. However, an ECC granted to a Proponent who is a license (PEL) holder may be used to acquire only Proprietary or Exclusive seismic survey data in line with provisions of the Petroleum Agreement with respect to the data ownership. The ECC applied for this project covers both MC and Proprietary (Exclusive) seismic survey business arrangements.

Under a Multiclient Survey, seismic survey is conducted by a seismic contractor company over an area that might be covering either a single or multiple Petroleum Exploration Licenses (PELs) and unlicensed areas under the control of the State. The collected MC datasets are sold / licensed to multiple clients on a non-exclusive basis. The data acquired is held under a MC seismic data library owned by the contractor and later may be transferred to a partner/s / Government depending on the contractual and confidentiality arrangements. The cost and findings from MC seismic survey data sets are shared among the different parties involved which may include: Seismic contractor, Government and Licence (PEL) holder/s. Contractually, the partnership decides how they split the cost and decide upon how the data will be managed and proceeds shared.

Proprietary also called Exclusive seismic survey is undertaken for a single client or partnership, and the area of coverage is often limited to specific licensed (PEL) area. The cost of the survey and ownership of the data under a proprietary seismic survey business arrangement falls under the responsibilities of the individual license (PEL) holder. On relinquishment of the petroleum exploration rights, the seismic data sets collected is handed over to the Government.

Seismic survey is a key tool that is used to map the subsurface kilometres below the ground either on land (onshore) or in the sea (offshore). The basic principle of seismic survey method is the application of controlled generation of sound / acoustic waves by a seismic source to obtain an image of the subsurface, improved resolution of subsurface features. The main difference between two-dimensional (2D) and three-dimensional (3D) seismic surveys is that 2D seismic survey is acquired using a single listening cable towed behind the seismic vessel, whereas 3D seismic survey is acquired using six (6) parallel listening cables, and the cables can be up to six (6) kilometres long. 3D seismic survey data is often used for mapping of the local area to locate local structures

and provides greater improved resolution of subsurface features being mapped compared to the 2D seismic data which is often used for mapping regional area to locate regional structures where 3D seismic survey can be used to refine the targets.

4. Describe the environmental changes arising from the proposed amendment(s):
The inclusion of the initially excluded 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A, Orange Basin, offshore Namibia to the current ECC Area of Interest (AOI) so that the Proponent or the License holder can acquire both 2D and 3D seismic survey data sets over this small area that was initially excluded from the AOI and the amendment of the current ECC title to include the words Proprietary and 2D seismic survey will result in no significant environmental changes as detailed and demonstrated in the Updated EIA and EMP Reports.
5. Describe how the environment and the community might be affected by the proposed amendment(s):
The inclusion of the initially excluded 255 km² semicircle remainder area portion of the Petroleum Exploration License (PEL) 0084 covering Block 2914A, Orange Basin, offshore Namibia to the current ECC Area of Interest (AOI) so that the Proponent or the License holder can acquire both 2D and 3D seismic survey data sets over this small area that was initially excluded from the AOI and the amendment of the current ECC title to include the words Proprietary and 2D seismic survey will not significantly affect the environment and the community might as detailed and demonstrated in the Updated EIA and EMP Reports.
6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or activity profile previously submitted for this activity may be affected:
All the valid and applicable environmental performance requirements set out in the previous EIA and EMP reports have been incorporated in the current updated EIA and EMP Report. Based on the updated assessment of both the negative and positive impacts undertaken for the proposed amendment, a number of positive and negative impacts have been identified. Mitigation measures for the negative impacts have been proposed and management strategies are provided in the updated EMP Report.
7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed amendment(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process:
All the mitigation measures to eliminate, reduce or control any adverse environmental impact arising from the proposed amendment (s) and to meet the requirements in the Technical Memorandum on

Environmental Impact Assessment Process are contained in the attached updated EIA and EMP Reports. Both the Updated EIA and EMP Reports have recommended the following:

- (i) The proposed Multiclient or Proprietary 2D/3D seismic survey operations over the remainder of the Petroleum Exploration License (PEL) No. 0085, Block 2914A Area and the existing Area of Interest (AOI) covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A, 2915, 2814A, and 2814B (Excluding Tripp Seamount), in the Orange Basin, offshore southern Namibia be issued with an amended ECC. The amended ECC will allow the Proponent to acquire seismic survey data sets over the additional 255 km² semicircle area of PEL 0084 covering Block 2914A.
- (ii) The Proponent shall prepare, implement, monitor and report on the performance of the Environmental Management Plan (EMP) detailing all the key mitigation measures implemented. The mitigation measures presented in the EMP Report have been modelled around two main concepts: Industry best practice and local phenomena unique to the area of exploration. Furthermore, International standards of protection have been developed through the Joint Nature Conservation Committee (JNCC) "guidelines for minimising the risk of injury and disturbance to marine mammals from seismic survey", in addition to the International Association of Geophysical Contractors (IAGC)'s "recommended mitigation measures for cetaceans during geophysical operations". Best industry practices which are based on the Best Practicable Environmental Option (BPEO) has proved to be effective in several different countries like Canada, Australia, Norway, and the United States. These guidelines have been developed based on noise attenuation modelling, international experiences during seismic acquisition and a precautionary approach to the disturbance of marine mammals from seismic survey. The following are the example summary of some of key mitigation measures that are included in the EMP Report:
 - ❖ Seasonality, timing and establishment of operational safety and mitigation exclusion zones.
 - ❖ Use of Marine Mammal Observers (MMOs).
 - ❖ Use of Fisheries Liaison Officers (FLOs).
 - ❖ Use of Passive Acoustic Monitoring (PAM) Technology.
 - ❖ Soft starts' and 'pre-firing' observations.
 - ❖ Delay of ramp up for marine mammals seen or heard inside safety zone of 500 m.
 - ❖ Termination of firing in the 500m exclusion zone with respect to marine mammals.
 - ❖ The use of Turtle friendly tail buoys.
 - ❖ The use of support vessel(s).
 - ❖ Pollution Management.
 - ❖ Spill Management.
 - ❖ The use of the lowest practicable airgun volume as defined by the operator

- ❖ Compliance to all MARPOL (marine pollution) Regulations and Waste Disposal Procedures, and.
 - ❖ Adoption of the precautionary principles in the absence of any specific mitigation measures being provide in this EMP, the Proponent shall always adopt the precautionary approach.
- (iii) In the absence of any specific mitigation measures being provide in the EMP, the Proponent shall always adopt the precautionary approach, and.
- (iv) The Ministry of Mines and Energy (MME), Ministry of Fisheries and Marine Resources (MFMR), Ministry of Works and Transport (MWT), and Ministry of Environment, Forestry and Tourism (MEFT), Debmarine Namibia and all fishing companies operating in the Orange Basin, offshore Namibia and especially overlapping with the proposed survey area shall be notified on the implementation of each survey event. The communication shall be done directly to each key stakeholder as well as through the Office of the Petroleum Commissioner in the MME who in turn will notify the other institutional stakeholder.

PART D DECLARATION BY APPLICANT

I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental clearance certificate may be suspended, amended or cancelled if any information given above is false, misleading, wrong or incomplete.



Dr Sindila Mwiya

ENVIRONMENTAL
ASSESSMENT
PRACTITIONER (EAP)

Signature of Applicant

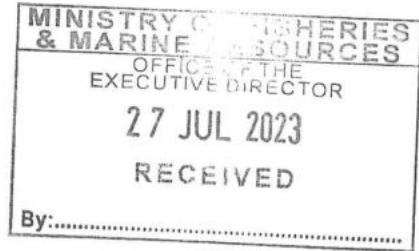
Full Name in Block Letters

Position

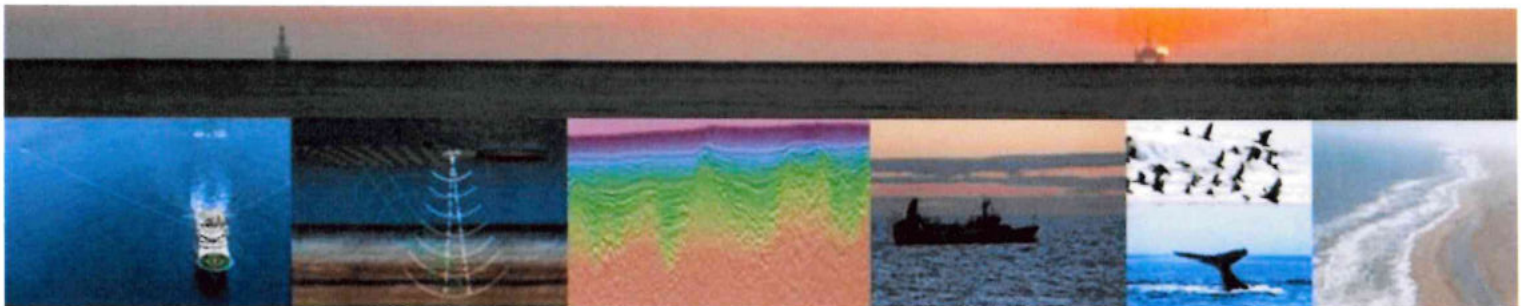
on behalf of Searcher Geodata UK Ltd

Date 25th July 2023

Searcher Geodata UK Ltd



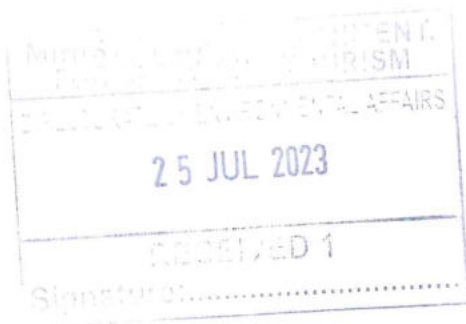
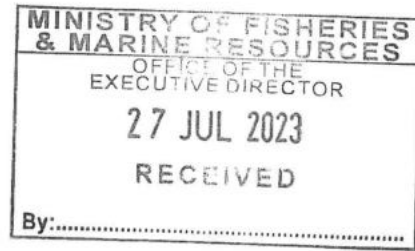
Final Updated Environmental Management Plan (EMP) Report to Support the Application for Amendment of the Environmental Clearance Certificate (ECC) APP No. 3794 for the Proposed Multiclient or Proprietary 2D/3D Seismic Survey over the Remainder of the Entire Petroleum Exploration License (PEL) No. 0085, Block 2914A Area and the Existing Area of Interest (AOI) covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A, 2915, 2814A, and 2814B (Excluding Tripp Seamount), Orange Basin, **OFFSHORE SOUTHERN NAMIBIA**



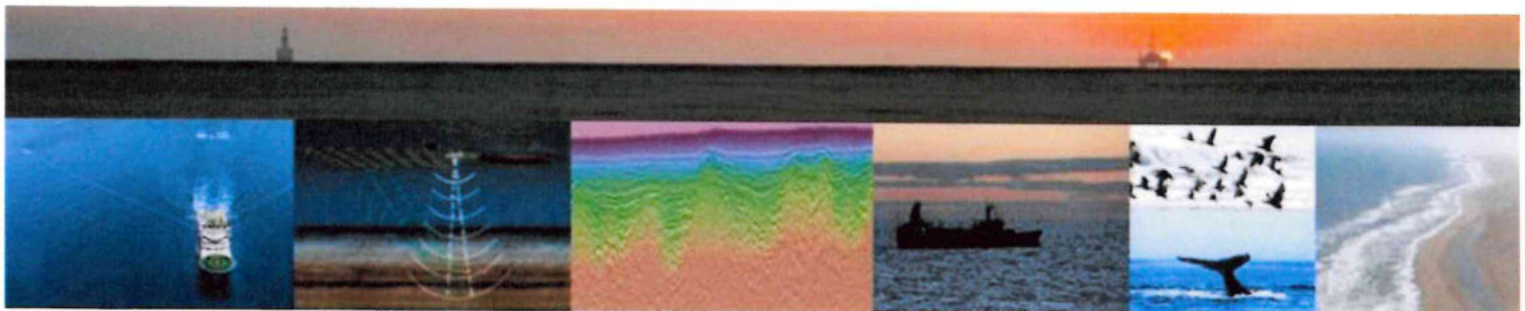
July 2023

Unit 6, Albion House,
High Street, Woking, GU21 6BG,
UNITED KINGDOM

Searcher Geodata UK Ltd



Final Updated Environmental Impact Assessment (EIA) Report to Support the Application for Amendment of the Environmental Clearance Certificate (ECC) APP No. 3794 for the Proposed Multiclient or Proprietary 2D/3D Seismic Survey over the Remainder of the Entire Petroleum Exploration License (PEL) No. 0085, Block 2914A Area and the Existing Area of Interest (AOI) covering Blocks 2614, 2613, 2612A, 2612B, 2714A, 2714B, 2713, 2712A, 2712B, 2812B, 2813A, 2814B, 2814A, 2912, 2913B, 2914B, 2914A, 2915, 2814A, and 2814B (Excluding Tripp Seamount), Orange Basin, OFFSHORE SOUTHERN NAMIBIA



July 2023

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