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Lakeside
7945

17 February 2021

Ashleigh von der Heyden

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1 PAULPUTS NORTH WIND ENERGY FACILITY RF (PTY) LTD AMENDMENT

1.1 Background Information

Paulputs Wind Energy Facility (RF) (Pty) Ltd ('PWEF'), a wholly owned subsidiary of WKN Windcurrent SA (Pty) Ltd, was granted environmental authorisation for the 300 MW (75 Turbine) Paulputs Wind Energy Facility (WEF) and its associated 132 kV grid connection on 11 December 2019 by the Department of Environment, Forestry and Fisheries (DEFF) (DEFF Reference No. 14/12/16/3/3/2/1120). PWEF are proposing to give permission to Paulputs Wind Energy Facility North (RF) (Pty) Ltd and Paulputs Wind Energy Facility South (RF) (Pty) Ltd to split and amend the Environmental Authorisation (EA) into three amendment applications for EA.

The summary of each amendment application is defined below:

- **Amendment 1:** Paulputs North Amendment: Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North') intends to construct and operate a 150MW WEF (Paulputs North WEF) consisting of up to 40 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m. This authorisation will also include the authorised Paulputs WEF preferred on-site substation and a proposed Battery Energy Storage Facility in the area authorised for temporary laydown. All infrastructure is to be located on the north west of the N14 Highway; and
- **Amendment 2:** Paulputs North Grid Connection Amendment: PWEF give permission to Paulputs Wind Energy Facility North (RF) (Pty) Ltd to remove the authorised 132 kV Grid Connection (Option C) from its authorisation in favour of ownership by Paulputs Wind Energy Facility North (RF) (Pty) Ltd ('Paulputs North') for use at the Paulputs North WEF site. The approved grid connection will be taken over by Eskom in the future and thus requires its own Environmental Authorisation.
- **Amendment 3:** Paulputs South Amendment: Paulputs Wind Energy Facility South (RF) (Pty) Ltd ('Paulputs South') intends to construct and operate a 150MW WEF (Paulputs South WEF) consisting of up to 35 turbines, with a hub height of up to 180m, blade length of up to 110m and a rotor diameter of up to 220m. All infrastructure is to be located on the south east of the N14 Highway;

This letter concerns the **Paulputs WEF North (Amendment 1)**, and the **Paulputs WEF North grid connection and associated electrical infrastructure (Amendment 2)**. The WEF project details are as follows:

ASHA Consulting (Pty) Ltd

Reg. no.: 2013/220482/07 | Directors: Jayson Orton & Carol Orton

40 Brassie Street, Lakeside, 7945 | T: 021 788 1025 | C: 083 272 3225

Jayson@asha-consulting.co.za | Carol@asha-consulting.co.za | www.asha-consulting.co.za

	Authorised	Amendment
Holder of Authorisation	Paulputs Wind Energy Facility (Pty) Ltd	Paulputs Wind Energy Facility North (RF) (Pty) Ltd
Name of Development	The 300 MW Paulputs Wind Energy Facility (WEF) and associated 132 kV grid connection, Northern Cape Province.	The 150 MW Paulputs Wind Energy Facility (WEF) North, On-Site Substation and a Battery Energy Storage System, Northern Cape Province.
Authorised Scope	Megawatt Capacity of 300 MW	Reduced Megawatt capacity to 150 MW
	75 Turbine Wind Turbine Generators ¹ .	Reduced number of turbines to 40.
	Ancillary Infrastructure	Ancillary Infrastructure
	Single Circuit, 132kV Grid Connection.	Removal of the Single Circuit, 132kV Grid Connection
	132kV on-site Substation	132kV on-site Substation
		Addition of Battery Energy Storage Facility

In terms of locality, the WEF, substation and BESS locations are provided below:

Reference Point	Latitude	Longitude
WEF Development Area Co-ordinates		
A	28°52'58" S	19°41'30" E
B	28°54'45" S	19°47'05" E
C	28°59'38.21"S	19°41'56.37"E
D	28°57'14" S	19°39'29" E
E	28°55'39" S	19°40'44" E
Authorised On-Site Substation (Option A) Development Area Co-ordinates		
North Corner	28°56'25.66"S	19°42'7.13"E
West Corner	28°56'32.05"S	19°42'7.70"E
South Corner	28°56'32.24"S	19°42'16.53"E
East Corner	28°56'25.89"S	19°42'16.86"E
Battery Energy Storage		
Temporary Laydown	28°56'28.20"S	19°42'14.57"E

The Paulputs WEF is authorised for the maximum height to tip of the blade of 230m, with a hub height of up to 140m, a rotor diameter of up to 180m and a blade length of up to 90m. For the amendment, Paulputs North seek authorisation to amend the turbine specifications to allow for a 110 m blade length and a 180 m hub height.

¹ Turbine specifications and proposed amendments given in Section 3.3

1.2 Literature Consideration:

The content of this letter is based on the information generated during the original impact assessment process and presented in the project Heritage Impact Assessment (HIA). The relevant report is:

Orton, J. 2019. Heritage Impact Assessment: proposed Paulputs Wind Energy Facility and associated Grid Connection near Pofadder, Kenhardt Magisterial District, Northern Cape. Unpublished report prepared for Arcus Consultancy Services South Africa (Pty) Ltd. Lakeside: ASHA Consulting (Pty) Ltd.

1.3 Receiving Environment

The study area is generally very flat but with very low rises in places. The exceptions are a number of small, steep rocky hills that dot the landscape. Watercourses are ephemeral and far more common in the north than the south. Vegetation is sparse, but bushy patches do occur, primarily along the watercourses.

This assessment finds that numerous Stone Age archaeological resources occur throughout the WEF study area but that they are generally associated with water sources and rocky hills. The sensitive locations are all in the northern part of the WEF site where watercourses are more frequent. They have been deliberately avoided during formulation of the proposed layout and impacts to these heritage resources are thus not expected. The power line routes were not physically examined but some sites may be associated with hills or watercourses along the various options. There is still a small chance that isolated water holes with associated archaeological sites can be located in open areas but these could only be identified once the final facility layout is surveyed before construction.

The landscape is more natural than cultural but will experience visual impacts. The important part of this is that, although not a designated tourism route (SiVest 2019, Visual Impact Assessment), the N14 is considered by the heritage specialist to be a route of cultural significance because of the aesthetic and scenic qualities of the landscape through which it passes. Turbines are proposed to be placed on both sides of the N14 meaning that motorists would have to pass through the development. The power lines and substation, on the other hand, present a far more limited impact and, if the WEF is constructed then the associated power line would have a negligible further impact. In general, substation locations further away from the N14 are better. Despite the WEF straddling the road, and considering the benefits to the economy, the impacts to the N14 are not significant enough to be a fatal flaw, largely because the turbines would be in a cluster and not spread out over a lengthy section of the road in what is a very extensive landscape

It is noted that the turbine layout is slightly changed from that which was authorised (the latest layout is shown in Figure 1). The potential impacts to archaeology were rated as being of medium intensity because some sites might still be impacted. No sites of very high cultural significance were located during the survey. Despite the permanence of impacts to archaeological sites, the low extent and probability of impacts combined to result in a low significance. With mitigation the intensity would become low and the resulting significance would remain low.

Figure 1 shows the buffers around those archaeological sites that did have cultural significance. Several such sites are present within the bounds of the Paulputs South WEF. These sites have all been considered and avoided in the project design and, because it is still possible that other sites might occur within the road footprint, no change in the impact assessment ratings is needed. The ratings to all other aspects of heritage similarly remain unchanged. It will, however, still be important to conduct the pre-construction archaeological survey of the road layout in order to determine whether any other archaeological sites might be present in open areas not covered during the original survey.

The powerline route for the grid connection was not surveyed during the initial assessment because the alignment could not be accessed at the time. Some areas were noted from aerial photography as being potentially of medium sensitivity during the scoping phase. The line does cross a few of these. In the WEF area many of the potentially medium sensitivity areas turned out to not be sensitive and it is possible that this may also occur during survey of the grid line route. On the basis of the archaeology seen in the WEF study area and of other sites known by the author to occur in the wider area, it is unlikely that the power line construction would result in impacts of anything more than medium intensity. The impact assessment ratings discussed above thus also continue to apply to the grid connection. Once more, the pre-construction survey will be an important part of the project and will ensure that any as yet undocumented sites can be recorded and sampled, if necessary, prior to their destruction.


The recommendations contained in the original HIA require modification in that the original recommendation pertaining to the substations falls away. The recommendations to be carried forward in the amended authorisation for the **Paulputs WEF North** are as follows:

- The final authorised layout for the WEF, all internal roads (including the above rerouted section), internal power lines, substation and any other areas to be disturbed must be surveyed by an archaeologist prior to construction in order to identify any remaining potential impacts that may need mitigation;
- Identified sensitive sites must be treated as no-go areas throughout the lifetime of the project;
- If any turbines are removed as a result of the use of larger turbines at a later stage then priority should be given to removing turbines close to the N14; and
- If any archaeological material or human burials are uncovered during the course of development then work in the immediate area should be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.

The recommendations to be carried forward in the amended authorisation for the **Paulputs WEF North grid connection** are as follows:

- The final authorised layout for the power line, substation, battery storage system and any other areas to be disturbed must be surveyed by an archaeologist prior to construction in order to identify any remaining potential impacts that may need mitigation;
- Identified sensitive sites must be treated as no-go areas throughout the lifetime of the project. These are to be confirmed during the pre-construction survey;
- If any archaeological material or human burials are uncovered during the course of development then work in the immediate area should be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.

Yours sincerely



Jayson Orton

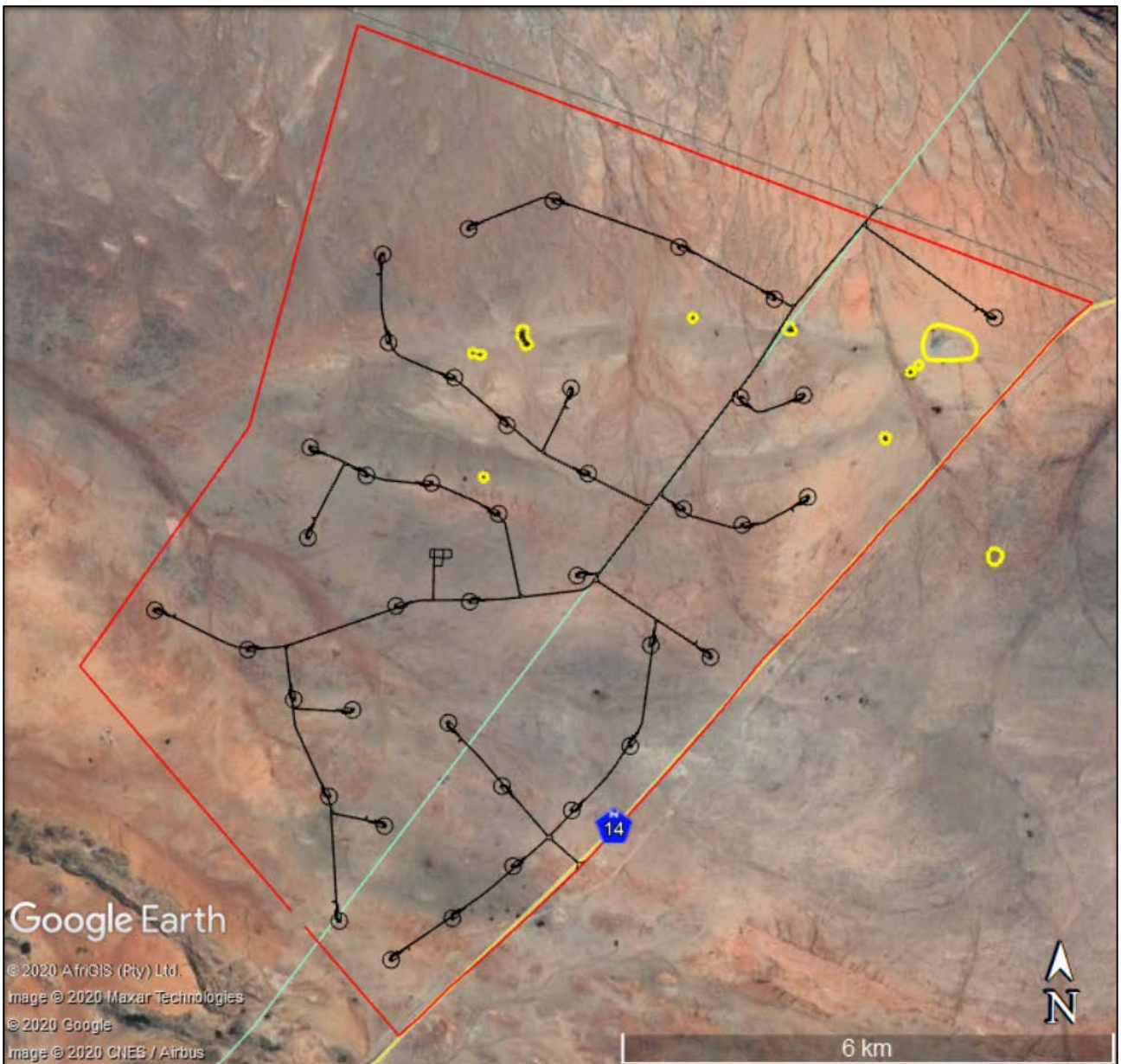


Figure 1: The current layout considered by this opinion letter. The N14 serves as the south-eastern boundary of the project and the red polygon indicate the project site outline. The small yellow polygons denote buffers around archaeological sites.

Site verification report

A site sensitivity verification was undertaken in order to confirm the current land use and environmental sensitivity of the proposed project area. The details of the site sensitivity verification are noted below:

Date of Site Visit	30 November to 2 December 2018
Specialist Name	Dr Jayson Orton
Professional Registration Number)	ASAPA: 233; APHP: 043
Specialist Affiliation / Company	ASHA Consulting (Pty) Ltd

- Provide a description on how the site sensitivity verification was undertaken using the following means:

- (a) desk top analysis, using satellite imagery;
- (b) preliminary on -site inspection; and
- (c) any other available and relevant information.

Initial work was carried out using satellite aerial photography in combination with the author's accumulated knowledge of the local landscape. This was used to provide sensitivity data. Subsequent fieldwork served to ground truth the site, including areas identified as potentially sensitive (but not in the section that was inaccessible). Desktop research was also used to inform on the heritage context of the area.

- Provide a description of the outcome of the site sensitivity verification in order to:

- (a) confirm or dispute the current use of the land and the environmental sensitivity as identified by the screening tool, such as new developments or infrastructure, the change in vegetation cover or status etc.;
- and
- (b) include a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity.

The map below is extracted from the screening tool report and shows the archaeological and heritage sensitivity to be medium to low. The site visit showed that in fact the majority of the site is of low sensitivity with only small pockets (where archaeological resources were found) considered to be of medium sensitivity. Figure 1 (above) shows the areas considered to be archaeologically sensitive. Since none of the sites were of high cultural significance, these can all be considered as medium sensitivity areas. A photographic record and description of the relevant heritage resources is contained within the impact assessment report.

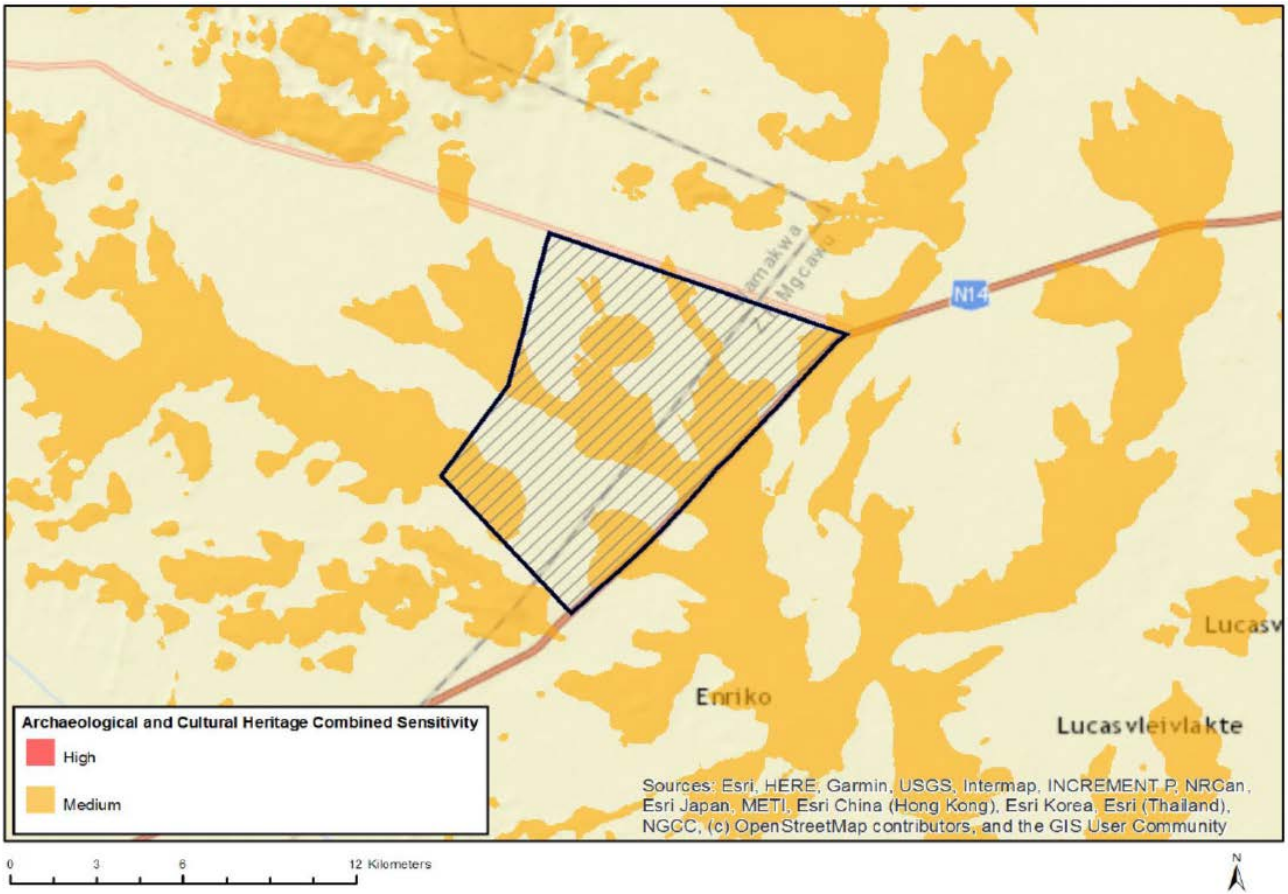
The screening tool report contains no palaeontological map which indicates 100% low sensitivity. This is in line with the specialist study conducted during the impact assessment phase.

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Screening tool map: archaeological and cultural heritage theme.



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

PROJECT TITLE

PROPOSED AMENDMENT OF THE AUTHORISED PAULPUTS WIND ENERGY FACILITY, NORTHERN CAPE PROVINCE

Kindly note the following:

1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at <https://www.environment.gov.za/documents/forms>.
3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

Departmental Details

Postal address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Attention: Chief Director: Integrated Environmental Authorisations
Environment House
473 Steve Biko Road
Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:
Email: EIAAdmin@environment.gov.za

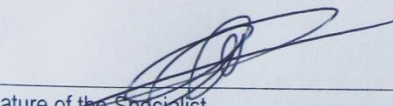
1. SPECIALIST INFORMATION

Specialist Company Name:	ASHA Consulting (Pty) Ltd		
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percentage Procurement recognition
Specialist name:	Dr Jayson Orton		
Specialist Qualifications:	D.Phil (Archaeology, Oxford, UK) MA (Archaeology, UCT)		
Professional affiliation/registration:	ASAPA CRM member No. 233 APHP member No. 043		
Physical address:	23 Dover Road, Muizenberg, 7945		
Postal address:	23 Dover Road, Muizenberg		
Postal code:	7945	Cell:	083 272 3225
Telephone:	021 788 1025	Fax:	n/a
E-mail:	jayson@asha-consulting.co.za		

2. DECLARATION BY THE SPECIALIST

I, JAYSON ORTON, declare that –

- I act as the independent specialist in this application;
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



 Signature of the Specialist

ASHA CONSULTING (PTY) LTD

 Name of Company:

21-07-2021

 Date

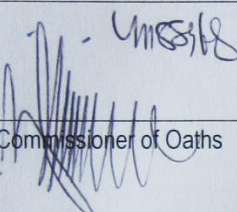
3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, JAYSON ORTON, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

Signature of the Specialist 

ASHA CONSULTING(PTY) LTD
Name of Company

21-07-2021
Date


Signature of the Commissioner of Oaths

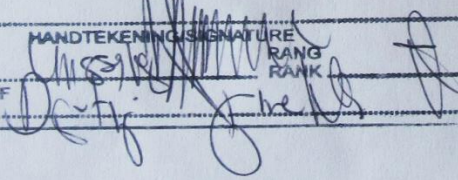
2021-07-21
Date

EK SERTIFISEER DAT HIERDIE DOKUMENT 'N WARE AFDRUK(AFSKRIF) IS VAN DIE OORSPRONKLIKE DOKUMENT WAT AAN MY VIR WAARNEEMING VOORGELEË IS. EK SERTIFISEER VERDER DAT VOLGENS MY WAARNEEMINGS DAAR NIE 'N WYSIGING OF VERANDERING OP DIE OORSPRONKLIKE DOKUMENT AANGEBRING IS NIE.

I CERTIFY THAT THIS DOCUMENT IS A TRUE REPRODUCTION(COPY) OF THE ORIGINAL DOCUMENT WHICH WAS HANDED TO ME FOR AUTHENTICATION. I FURTHER CERTIFY THAT FROM MY OBSERVATIONS, AN AMENDMENT OR A CHANGE WAS NOT MADE TO THE ORIGINAL DOCUMENT.

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