Reg. Nr BK 2004/077075/23

MILNEX CC
ENVIRONMENTAL CONSULTANTS

053 963 1081
018 011 1925
072 998 6008

087 231 7021
info@milnex-sa.co.za

Botha Street 4
SCHWEIZER-RENEKE

Waterberry Street,
Waterberry Square,
1st floor, Office 7
POTCHEFSTROOM

C/o Welgevonden &
Memorial Street,
Roylglen Office Park
KIMBERLEY

www.milnex-sa.co.za

SCOPING REPORT

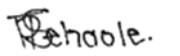
THE PROSPECTING RIGHT APPLICATION FOR A PROSPECTING RIGHT OF DIAMONDS ALLUVIAL (DA), DIAMONDS GENERAL (D), DIAMONDS (DIA) & DIAMONDS IN KIMBERLITE (DK) PROSPECTING RIGHT, COMBINED WITH A WASTE LICENCE APPLICATION OF WOUTERSPAN MINING (PTY) LTD, ON THE REMAINING EXTENT, PORTION 1 (UITZICHT) OF THE FARM 392 AND PORTION 1 (TEVREDE) OF THE FARM WINDHOEK 393, REGISTRATION DIVISION: HAY; NORTHERN CAPE PROVINCE.

NAME OF APPLICANT	**Wouterspan Mining (Pty) Ltd**
PREPARED BY	**Milnex CC**
TEL NO	(018) 011 1925
FAX NO	087 231 7021
POSTAL ADDRESS:	P.O. Box 1086, Schweizer-Reneke, 2780
PHYSICAL ADDRESS:	4 Botha Street, Schweizer-Reneke, 2780
REFERENCE NUMBER:	**NC30/5/1/1/2/12646PR**

PROJECT INFORMATION

Project Name:	Application for an Environmental Authorisation for the proposed Prospecting Right of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) on the remaining extent, portion 1 (Uitzicht) of the farm 392 and portion 1 (Tevrede) of the farm Windhoek 393, Registration Division: Hay; Northern Cape Province.
Report Title:	Scoping Report
Prepared By:	Milnex CC
Date:	January 2021

QUALITY CONTROL:

	Report Author:	**Report Reviewer:**
Name:	Ms. Percy Sehaole Pr. Sci. Nat. EAPASA (2019/959)	N/A
Signature:		

DISCLAIMER:

The DEA screening tool was used in compiling this document

IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a prospecting or mining right if among others the mining "will not result in unacceptable pollution, ecological degradation or damage to the environment".

Unless an Environmental Authorisation can be granted following the evaluation of an Environmental Impact Assessment and an Environmental Management Programme report in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA), it cannot be concluded that the said activities will not result in unacceptable pollution, ecological degradation or damage to the environment.

In terms of section 16(3)(b) of the EIA Regulations, 2014, any report submitted as part of an application must be prepared in a format that may be determined by the Competent Authority and in terms of section 17 (1) (c) the competent Authority must check whether the application has taken into account any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

It is therefore an instruction that the prescribed reports required in respect of applications for an environmental authorisation for listed activities triggered by an application for a right or permit are submitted in the exact format of, and provide all the information required in terms of, this template. Furthermore please be advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereof to compile the information required herein. (Unprocessed supporting information may be attached as appendices). The EAP must ensure that the information required is placed correctly in the relevant sections of the Report, in the order, and under the provided headings as set out below, and ensure that the report is not cluttered with un-interpreted information and that it unambiguously represents the interpretation of the applicant.

OBJECTIVE OF THE SCOPING PROCESS

1) The objective of the scoping process is to, through a consultative process—

(a) identify the relevant policies and legislation relevant to the activity;
(b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
(c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;
(d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;
(e) identify the key issues to be addressed in the assessment phase;
(f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and
(g) identify suitable measures to avoid, manage, or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

_____

2) Contact Person and correspondence address

a) DETAILS OF:

i) The EAP who prepared the report

ii) Expertise of the EAP

Name of Practitioner	**Qualifications**	**Contact details**
Ms. Percy Sehaole Pr.Sci.Nat	Master's Degree in Environmental Science (refer to **Appendix 1**)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: percy@milnex-sa.co.za
Lizanne Esterhuizen	Honours Degree in Environmental Science (refer to **Appendix 1**)	Tel No.: (018) 011 1925 Fax No. : (053) 963 2009 e-mail address: lizanne@milnex-sa.co.za

Summary of the EAP's past experience. (Attach the EAP's curriculum vitae as **Appendix 2**)

Milnex CC was contracted by **Wouterspan Mining (Pty) Ltd** as the independent environmental consultant to undertake the Scoping and EIA process for a Prospecting Right of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) on the remaining extent, portion 1 (Uitzicht) of the farm 392 and, portion 1 (Tevrede) of the farm Windhoek 393, Registration Division: Hay; Northern Cape Province. The property is located approximately 35km South of Griekwastad in the Northern Cape Province. Milnex CC does not have any interest in secondary developments that may arise out of the authorisation of the proposed project.

The initial application was on the following properties:

- The remaining extent of the farm 392
- Portion 1 (Uitzicht) of the farm 392,
- Portion 1 (Tevrede) of the farm Windhoek 393,
- The remaining extent of portion 1 (Oranje Oord) and
- Portion 2 (portion of portion 1) of the farm Brakkies 384

The application was accepted on the following portions

- Portion 1 (Uitzicht) of the farm 392,
- Portion 1 (Tevrede) of the farm Windhoek 393

The application will continue on the following portions:

- The remaining extent of the farm 392,
- Portion 1 (Uitzicht) of the farm 392,
- Portion 1 (Tevrede) of the farm Windhoek 393

Milnex CC is a specialist environmental consultancy with extensive experience in the mining industry which provides a holistic environmental management service, including environmental assessment and planning to ensure compliance with relevant environmental legislation. Milnex CC benefits from the pooled resources, diverse skills and experience in the environmental and

mining field held by its team that has been actively involved in undertaking environmental studies for a wide variety of mining related projects throughout South Africa. The Milnex CC team has considerable experience in environmental impact assessment and environmental management, especially in the mining industry.

Percy Sehaole & Lizanne Esterhuizen have experience consulting in the environmental field. Their key focus is on environmental assessment, advice and management and ensuring compliance to legislation and guidelines. They are currently involved in undertaking EIAs for several projects across the country (refer to **Appendix 2** for CV).

b) **THE LOCATION OF THE ACTIVITY:**

Farm Name:	1. Portion 1 (Uitzicht) of the farm 392 2. Portion 1 (Tevrede) of the farm Windhoek 393 3. Remaining Extent of the Farm 392
Application area (Ha)	3 708.3484 ha
Magisterial district:	Pixley Ka Seme District Municipality
Distance and direction from nearest town	The property is located approximately 35km South of Griekwastad in the Northern Cape Province.
21 digit Surveyor General Code for each farm portion	1) C03100000000039200001 2) C03100000000039300001 3) C03100000000039200000
Minerals Applied for	Diamonds Diamonds Alluvial (DA) Diamonds General (D) Diamonds in Kimberlite (DK)

iii. Farms Co-ordinates:

Farms		Longitude	Latitude
1. Portion 1 (Uitzicht) of the farm 392 2. Portion 1 (Tevrede) of the farm Windhoek 393 5. Remaining Extent of the Farm 392	0	23° 15' 42.727" E	29° 4' 16.910" S
	1	23° 20' 6.419" E	29° 5' 53.981" S
	2	23° 19' 25.438" E	29° 6' 50.531" S
	3	23° 15' 44.904" E	29° 5' 33.708" S
	4	23° 16' 30.468" E	29° 7' 28.712" S
	5	23° 16' 44.585" E	29° 7' 26.295" S
	6	23° 16' 45.900" E	29° 7' 35.967" S
	7	23° 19' 23.950" E	29° 7' 7.301" S
	8	23° 19' 14.264" E	29° 9' 4.482" S
	9	23° 16' 57.218" E	29° 8' 34.547" S

c) **LOCALITY MAP** (show nearest town, scale not smaller than 1:250000 attached as **Appendix 3).**

A Locality map is attached in **Appendix 3** and on figure 1 below.

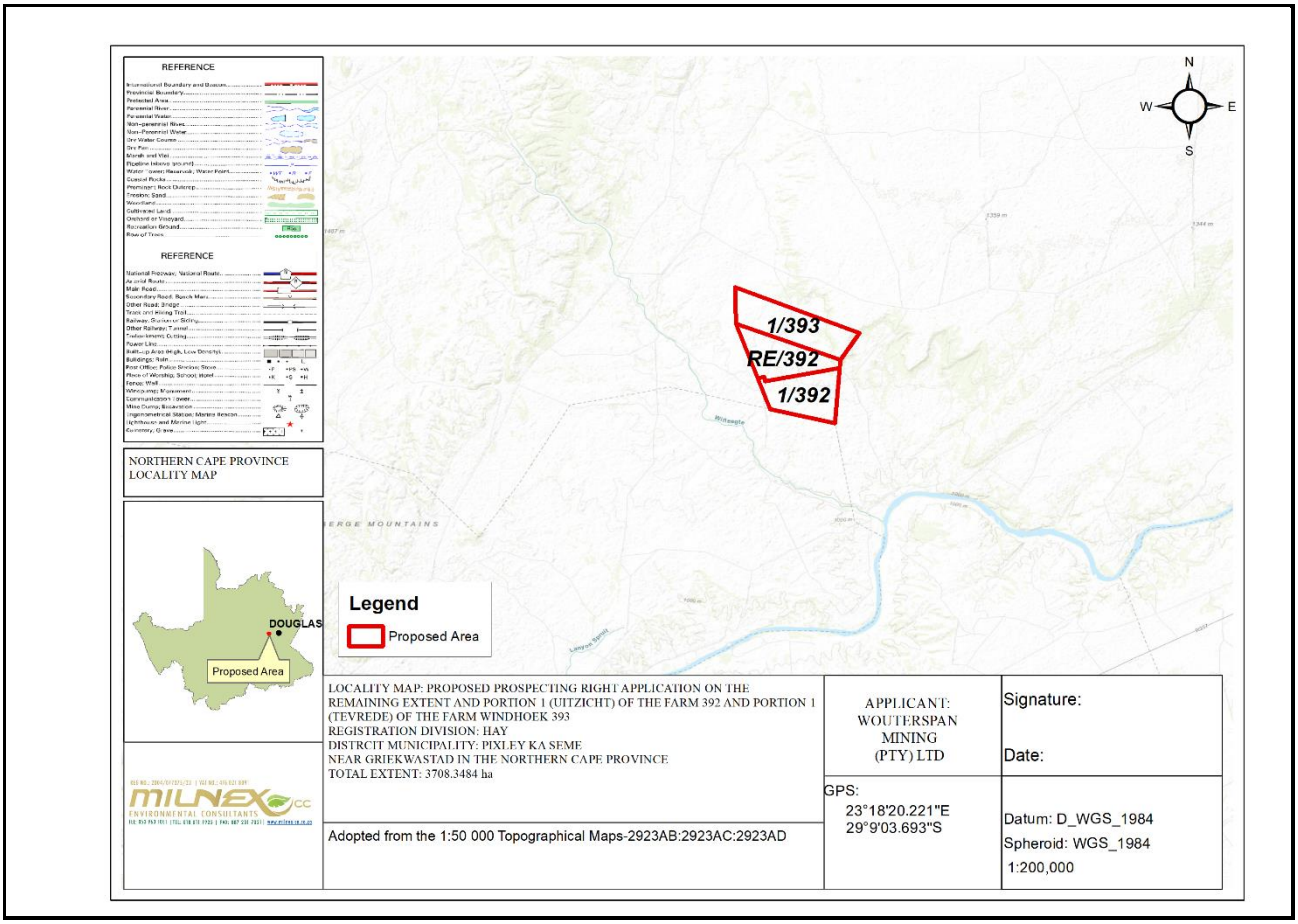


Figure 1: Locality Map

Refer to Site Plan included within **Appendix 4**.

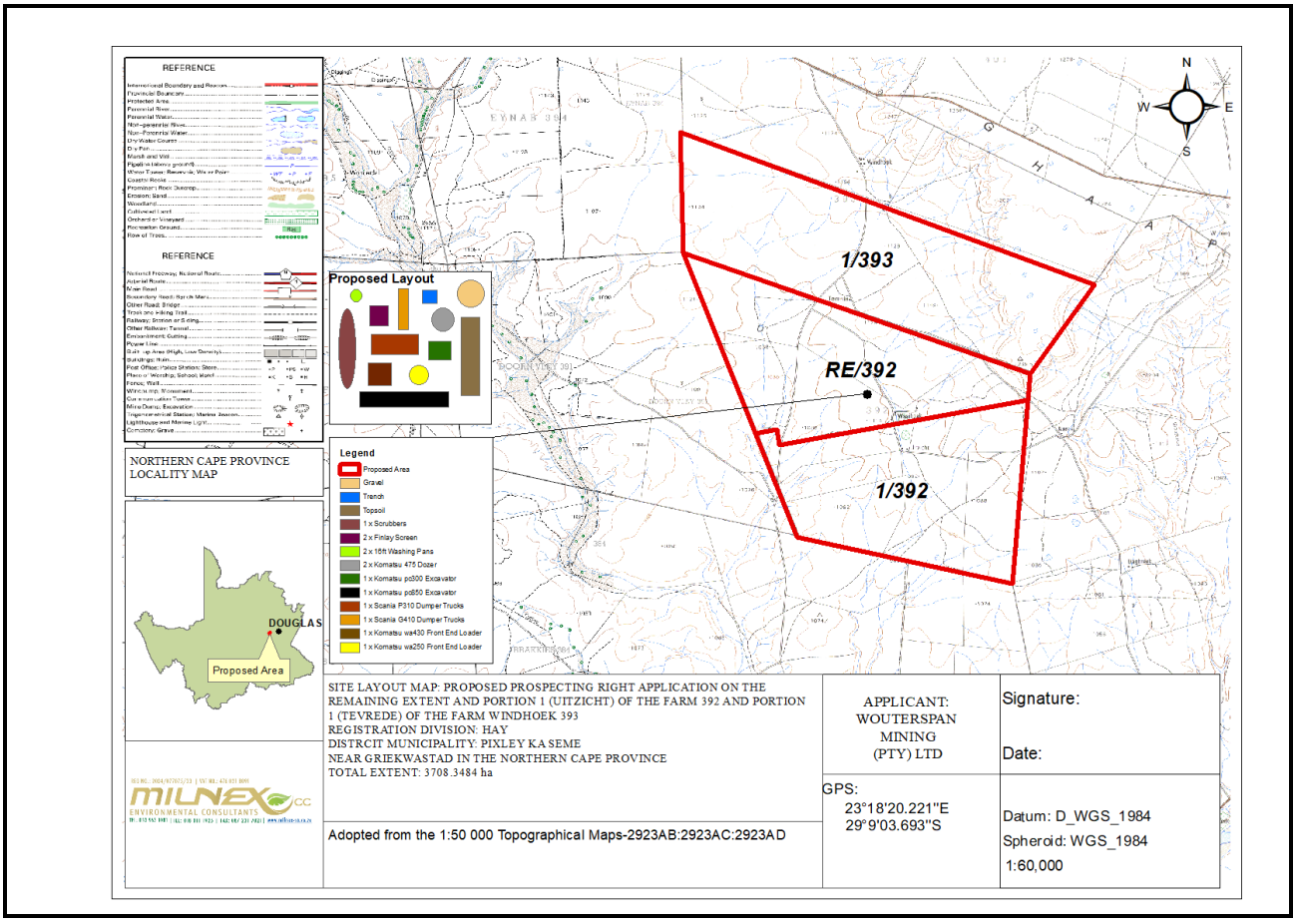


Figure 2: Site Plan

d) **DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY.**

i) Listed and specified activities

Provide a plan drawn to a scale acceptable to the competent authority but not less than 1: 10 000 that shows the location, and area (hectares) of all the aforesaid main and listed activities, and infrastructure to be placed on site and attach as **Appendix 4**

Listing Notices: 2017 Regulations

Description of the overall activity. **(Indicate Mining Right, Mining Permit, Prospecting right, Bulk Sampling, Production Right, Exploration Right, Reconnaissance permit, Technical co-operation permit, Additional listed activity)**	**1) Listing notice 1 GNR327: Activity 9:** *"The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;"* **2) Listing notice 1 GNR 327: Activity 10:** "*The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;"* **3) Listing Notice 1: GNR 327, Activity 19:** *The infilling or depositing of any material of more than 10 cubic metres into, or the*

	dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from: *(i) a watercourse;* **4) Listing Notice 1, GNR 327, Activity 20:** *"Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] (b) the primary processing of a petroleum resource including winning, extraction, classifying, concentrating or water removal; –* **5) Listing Notice 2, GNR 325, Activity 15:***"The clearance of an area of 20 hectares or more, of indigenous vegetation."* ***6)*** **Listing Notice 2, GNR 325, Activity 19**: *"The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource or (b) [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing;* **7) Listing Notice 3: GNR 324, Activity 12 (g):** *Northern Cape; The clearance of an area of 300 square metres or more of indigenous vegetation;* ***ii)*** *Within critical biodiversity areas identified in bioregional plans;* **8) NEM:WA 59 of 2008: Residue stockpiles or residue deposits, Category A: (15)** *The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).* Prospecting right with bulk samples for the prospecting of **Diamonds Alluvial, Diamonds General, Diamonds in kimberlite and Diamonds** including associated infrastructure, structure and earthworks.

NAME OF ACTIVITY **(E.g. For prospecting -** drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route **etc…etc…etc** **E.g. for mining**,- excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)	**Aerial extent of the Activity** **Ha or m²**	**LISTED ACTIVITY** (Mark with an **X** where applicable or affected).	**APPLICABLE LISTING NOTICE** ***(GNR 324, GNR 325 or GNR 326)***	**WASTE MANAGEMENT AUTHORISATION** (Indicate whether an authorisation is required in terms of the Waste Management Act) **(Mark with an X)**
Bulk transportation of water or storm water: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) ***Listing notice 1 GNR327: Activity 9:*** *The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water— (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;*	Random indigenous vegetation clearance of over a 3 708.3484 hectares area.	X	Listing notice 1 GNR327: Activity 9	
Bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **Listing notice 1 GNR 327: Activity 10:** *The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (i) with an*	Random indigenous vegetation clearance of over a 3 708.3484 hectares area.	X	Listing notice 1 GNR 327: Activity 10	

internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more;				
Prospecting Right: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **Listing Notice 1: GNR 327, Activity 19:** *The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from:* *(i) a watercourse;*	3 708.3484 Ha - Total hectares to be disturbed Concurrent backfilling will take place in order to rehabilitate.	X	Listing Notice 1: GNR 327, Activity 19	-
Prospecting Right: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **2 x 16 feet washing pan** with 432 000 tons to be washed, conveyors, screens, etc **Listing Notice 1, GNR 325, Activity 20:** *"Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including—* *(a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)]*	3 708.3484 Ha Total hectares to be disturbed	X	Listing Notice 1, GNR 327, Activity 20:	-

(b) the primary processing of a petroleum resource including winning, extraction, classifying, concentrating or water removal"				
Clearance of indigenous vegetation: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **Listing Notice GNR 325, Activity 15:** *"The clearance of an area of 20 hectares or more, of indigenous vegetation."* – Random indigenous vegetation clearance of over a 6724.928 hectares area.	3 708.3484 Ha Total hectares to be disturbed Concurrent backfilling will take place in order to rehabilitate.	X	Listing Notice 2, GNR 325, Activity 15	-
Prospecting: **<u>BULK SAMPLING:</u>** 3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **Listing Notice GNR 325, Activity 19**: *"The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including—* *(a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource [,]; or* *(b) [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing"*	3 708.3484 Ha Total hectares to be disturbed	X	Listing Notice 2, GNR 325, Activity 19:	
Clearance of indigenous vegetation: **<u>BULK SAMPLING:</u>**	Random indigenous vegetation clearance	X	Listing Notice 3: GNR 324,	

3 708.3484 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m) **Listing Notice 3: GNR 324, Activity 12 (g):** "*Northern Cape; The clearance of an area of 300 square metres or more of indigenous vegetation; ii) Within critical biodiversity areas identified in bioregional plans;"*	of over a 3 708.3484 hectares area.		Activity 12 (g):	
Residue stockpiles or residue deposits: "*The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).*"		X	NEM:WA 59 of 2008 Category A: (15)	

ii) Description of the activities to be undertaken (Describe Methodology or technology to be employed, and for a linear activity, a description of the route of the activity

Phase 1: Site Visit

The applicant will appoint Pieter van Wyk as the project geologist to conduct the site visit. A formal site visit will be done within 60 days after the prospecting right has been executed. It is foreseen that more than one site visit will be conducted on the farms.

The purpose of the site visit is to assist the applicant to be familiar with the environment and with the assessment of the topography and the general geology before invasive prospecting activities. During this process the applicant will also review all documentation that has been received in relation to the geology of the area.

Phase 2: Desktop Studies

Desktop studies will be undertaken after a site investigation is done to determine the target areas including the identification of any infrastructure to be build and any potential problems that may need to be addressed.

This phase involves reviewing the literature surveys, interpretation of aerial photographs, satellite images and ground validation of targets. A preliminary analysis of the environment will be obtained which will improve the project's efficiency and cost by providing a clearer understanding of the challenges may be encountered. Compilation of the results of analysis will be done by the geologist after the finalization of the desktop studies.

Phase 3: Pitting

A trial pit / test pit or inspection pit investigation is a highly effective way of obtaining data on the sub surface soil and rock conditions which underlie a prospecting sight. It allows for the various soils and rock types to be locked, the soil to be sampled and a preliminary assessment to be made.

Pits will be dug, locked, sampled and backfilled. To dig the pits the applicant will make use of the systems of Pieter van Wyk, the appointed project geologist.

The applicant will at the end of the pitting process have locked the pits with the following information:

- A description of the soil and rock types from ground level to the base of the pits;
- Record of rock head depth and refusal depth, a list of where the samples will be taken, a record of where ground water seepage will be recorded;
- A general note of the geology and conditions in the vicinity of the test pits
- Pitting will be done within the period of 24 months once the prospecting right has been granted.

It is planned that **100 pits** will be dug (it may be less depending on the results) at an extent of **3m (length) x 2m (breath) x 4m (depth).**

- **(100 pits / 24 months) x 12 months = 50 pits dug per year**

- **Total area to be disturbed per year = 50 pits x (3 m x 2 m) / 10 000 = 0.03 Ha disturbed per year**

- **Total area disturbed for 24 months = 100 pits x (3 m x 2 m) / 10 000 = 0.06 Ha disturbed for 24 months**

Phase 4: Trenches

Due to nature of the alluvial diamond deposit, samples are not taken for assay as would be normal practice to evaluate hard rock precious or base-metal prospects. The diamond distribution pattern grade of alluvial diamonds is also of such a nature that there is no repeatability of sample results, even from adjacent samples.

Bulk samples will have to be taken to determine the average sample grade. By taking of the bulk samples, the applicant foresees to determine the grade of the diamond deposits as the number of carats contained in 100 tons (cpht) of gravel and to determine the average diamond sizes.

During these activities the applicant will then find out the size and value distribution of trenches. Diamond distribution patterns of alluvial deposits varies to such a nature that there is no repeatability of sample results even from adjacent samples.

Alluvial diamond deposits can only be sampled through bulk sampling comprising thousands of cubic meters of gravel. Given the extent of the area and the grades expected to be very low, the applicant will have to process bulk samples of approximately 432 000 tonnes.

The appointed geologist will advise where the samples will be taken. Bulk samples will not be taken along a systematic grid as in the case of drilling. As the anticipated mining plan for the properties will be based on high volumes (low grades), the bulk samples will have to address average recovery.

As indicated, the bulk sampling exercise has to be conducted to determine the grades (cpht), the diamond size distribution and thereafter to sell the diamonds to determine the diamond values.

The plant/ bulk sampling technique will be that of a typical South African alluvial diamond mining operation. The method is a strip mining process with oversize material and tailings recovered from the plant will be used as backfill material prior to final rehabilitation. Gravels are excavated, loaded and transported to the treatment facility using dump trucks.

The bulk sampling operation will be conducted using a fleet of conventional open pit mining equipment compromising of dump trucks supported by appropriate excavators and front-end- loaders. All equipment is planned to be diesel driven.

Before excavation commences vegetation will be cleared from the proposed bulk sampling block. These will be done as per environmental regulations. Top soil will then be removed and stored separately for later used for rehabilitation.

The bulk samples will be made in the form of box cuts the dimensions of these individual box cuts will on average be **60m long x 40m wide**. It is estimated that the bulk samples will be **3m in depth**.

Gravel will be removed by excavators and will be loaded directly into dump trucks. Ore will be hauled to the screening plant. The material will be screened where after the screened material will be moved to the processing plant where the gravel will be processed. Concentrate will be moved to the sorting plant were the concentrate will be sorted.

It is estimated that pitting and trenching will take approximately 48 months.

- **(50 trenches / 24 months) x 12 months = 25 pits dug per year**
- **Total area to be disturbed per year = 25 trenches x (60 m x 40 m) / 10 000 = 6 Ha disturbed per year**

- **Total area to be disturbed for 24 months = 50 trenches x (60 m x 40 m) / 10 000 = 12 Ha disturbed per 24 months**

Rehabilitation:

Since 100 pits & 50 Trenches are anticipated to be made over the period of 24 Months, concurrent rehabilitation need to take place. It should be noted that 6.03ha would be disturbed at any given time.

Phase 5: Consolidation and interpretation of results data

The prospecting activities will be conducted to determine an inferred diamond resource and an indicated diamond resource. An inferred diamond resource has a lower level of confidence then that applying to an indicated diamond resource. The inferred resource indication will be where the geological and or grade continuity could not be confidently interpreted. It cannot be assumed that an inferred resource will necessarily be upgraded to an indicated resource. Such a resource is normally also not sufficient to enable an evaluation of economic viability.

To obtain an indicated resource the confidence level of information obtained from the prospecting will have to be sufficient for the information to be applied to mine design, mine planning to enable an evaluation of economic viability.

The project geologist, Pieter van Wyk, will monitor the program and consolidate and process the data and amend the program depending on the results received after each phase of prospecting. The DMR will be updated of any amendments made. This will be a continuous process throughout the prospecting work program.

Each physical phase of prospecting will be followed by desktop studies involving interpretation and modeling of all data gathered. These studies will determine the manner in which the work programme is to be proceeded with in terms of the activity, quantity, resources, expenditure and duration.

A GIS data base will be constructed capturing all the exploration data. All data will be consolidated and processed to determine the diamond bearing resource on the property.

Water uses:

Water uses under section 21 a-k of the NWA may be triggered, thus a Water Use Licence Application (WULA) will needed in cases there will be encroachment on any watercourses. When needed WULA will be lodged with the department of Water & Sanitation (DWS).

Table 1: Water Use Pan Size specifications for Alluvial Diamond Mining (DWS NC & FS, 2001).

Pan size	Water/hour (m^3)	Water/day(m^3)	Gravel/hour (tons)	Gravel/day (ton)
16	17	170	60	600

Since 2 x 16 feet washing pans will be used, the amount of water for the pans will be 34 000 L/hour from which 30% is re-used.

Ablution

Chemical toilets shall be used, no french drains and pits shall be permitted.

Storage of dangerous goods

During the prospecting activities, limited quantities of diesel and fuel, oil and lubricants will be stored on site. These goods should be placed in a bunded area one and a half times the volume of the total amount of goods to be stored.

Prospecting activities and phases

Please find the Prospecting Work Programme attached as **Appendix 8**.

e) **POLICY AND LEGISLATIVE CONTEXT**

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act No. 107 of 1998 as amended.	Department of Environmental Affairs	27 November 1998

Constitution of South Africa Act 108 of 1996	National	18 December 1996
The National Heritage Resources Act (Act No. 25 of 1999)	SAHRA	1999
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)	Department of Mineral Resources & Energy (DMRE)	2002
National Infrastructure Plan	National	
National Environmental Management: Biodiversity Act No. 10 of 2004	Department of Environmental Affairs	7 June 2004
National Environmental Management Waste Act, 2008 (Act No. 59 of 2008)	National & Provincial	1 July 2009
EIA regulations under NEMA	Department of Environmental Affairs	14 December 2014
Conservation of Agricultural Resources Act,1983 (Act No. 43 of 1983)	Department of Agriculture Forestry and Fisheries	1 June 1984
National Environmental Management Air Quality Act, 2004 (Act No. 39 of 2004).	National and Provincial	11 September 2004
National Water Act, 1998 (Act No. 36 of 1998).	National	20 August 1998
Northern Cape Province Growth and Development Strategy	Provincial	
Pixley ka Seme district Municipality Integrated Development Plan (IDP)	Municipal	
Siyathemba Local Municipality Integrated Development Plan (IDP) Review	Municipal	

Siyancuma Local Municipality Integrated Development Plan (IDP) Review	Municipal	
National Forest Act (Act 84 of 1998) (NFA)	National	30 October 1998
National Veld & Forest Fires Act (Act 101 of 1998)	National	27 November 1998

f) **NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES.**
(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

Prospecting rights and mining permits have been applied for all around the proposed site, and the outcome of that studies suggest the possibility of encountering further diamond deposits.

The Northern Cape Province is an important supplier of rough diamonds to the international market and is a large corner stone of the South African economy.

g) **PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED.**

The environmental authorisation is required for a minimum 3 years & maximum period of 5 years.

h) **DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED SITE.**

NB!! – This section is not about the impact assessment itself; It is about the determination of the specific site layout having taken into consideration (1) the comparison of the originally proposed site plan, the comparison of that plan with the plan of environmental features and current land uses, the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout as a result.

Each of the phases are dependent on the results of the preceding phase. The location and extent of soil sampling, and possible diamond bulk sampling can therefore not be determined at this stage. Mapping of the prospecting activities could thus not be undertaken. For the purposes of this report, the overall prospecting area is presented in **Appendix 3**.

i) Details of all alternatives considered.
With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:
(a) the property on which or location where it is proposed to undertake the activity;

(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

(a) The property on which or location where it is proposed to undertake the activity

As discussed in the previous section, based on outcomes of previous studies in the vicinity of the proposed site, the possibility to encounter high volumes of of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) combined with a Waste Licence Application near Hopetown on the remaining extent, portion 1 (Uitzicht) of the farm 392 and portion 1 (Tevrede) of the farm Windhoek 393, Registration Division: Hay; Northern Cape Province. The property is located approximately 35km South of Griekwastad in the Northern Cape Province, were identified.

Gravel roads, fencing, houses, stream passing along other portions, windmills and tributaries were identified on site.

(b) The type of activity to be undertaken

In terms of the technologies proposed, these have been chosen based on long term success in terms of their prospecting history. The prospecting activities proposed in the Prospecting Work Programme is dependent on the preceding phase, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

(c) The design or layout of the activity

The location of the activities will be determined based on the location of the prospecting activities, which will only be determined during phase 1 of the Prospecting Work Programme (see **Appendix 9** for the Programme).

The proposed area consists Gravel roads, fencing, houses, stream passing along other portions, windmills and tributaries were identified on site. Where applicable a Water Use License Application will be launched for conducting mining operations. All infrastructure will be temporary and/or mobile.

(d) The technology to be used in the activity

In terms of the technologies proposed, these have been chosen based on the long term success of their prospecting history. The prospecting activities proposed in the Prospecting Works Programme (**Appendix 9**) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

The preferred technology for the proposed mining activity, will be to remove the diamond bearing gravel with an excavator, depositing it in the 10 – 18 feet rotary pan(s) to be washed and sorted. Please find the Prospecting Work Programme attached as **Appendix 9**.

Pros & Cons of the alternative **Dense Media Separation (DMS)**

Advantages	Disadvantages
DMS plants is used mostly for kimberlite deposits	10 times more expensive than Rotary pan
	Water consumption is high
	Operating costs are expensive

In a Dense Media Separation (DMS) plant, powdered ferrosilicon (an alloy of iron and silicone) is suspended in water to form a fluid near the density of diamond (3.52 g/cm3), to which the diamond bearing material is added to begin the separation process of the heavier minerals from the lighter material. Additional separation of the denser material occurs by centrifuge in "cyclones" that swirl the mixture at low and high speeds, forcing the diamonds and other dense minerals to the walls and then out the bottom of the cyclone. Waste water rises at the center of the cyclones and is sucked out and screened to remove waste particles. The DMS process results in a concentrate that generally weighs less than one percent of the original material fed into the plant at the beginning of the process.

Pros & Cons of the alternative **Rotary Pan Plants**

Advantages	Disadvantages
More cost effective	The industry perception that Rotary Pan Plants yield poorer diamond recoveries
Readily available	
Generate more work opportunities	
Consume less water	
Rotary Pan Plants are most often used when mining alluvial deposits	

In a Rotary Pan plant, crushed ore, when mining kimberlite, or alluvial gravel and soil is mixed with water to create a liquid slurry called "puddle" which has a density in the 1.3 to 1.5 g/cm3 range. The mix is stirred in the pan by angled rotating "teeth". The heavier minerals, or "concentrate", settle to the bottom and are pushed toward an extraction point, while lighter waste remains suspended and overflows out of the centre of the pan as a separate stream of material. The concentrate, representing just a small percentage of the original kimberlite ore or alluvial gravels, is drawn off for final recovery of the diamonds.

Both methods are in actual fact used for bulk material reduction and require a further process for the final diamond recovery however, for this project the Rotary Pan will be used.

(e) The operational aspects of the activity

Due to the nature of the prospecting activities, no permanent services in terms of water supply, electricity, or sewerage services are required.

The activities will commence with a site investigation and desktop studies, which will comprise of non-invasive techniques. This manner of survey will ensure that the applicant can clearly delineate areas which are suitable for further investigation and no unnecessary surface disturbance will be undertaken.

Based on the outcome of the desktop studies and site investigation, pits will be dug by an excavator for the purpouse of soil sampling. If gravel is found, the applicant wil determine the the composition and quality of the gravel.
The applicant will proceed with this way of prospecting by means of the open cast/trenching method, simultaneously or after pitting depending on the information obtained from the earlier work done. The trenches will be dug to remove and wash the gravel. It will be washed by 2 x 16 feet washing pan to determine diamond proceeds per 100 tons of gravel.

All data will be consolidated and processed to determine the diamond bearing resources on the property. This will be a continuous process throughout the prospecting work programme.

No feasible alternatives to the pitting and trenching method currently exists. Impacts associated with the prospecting operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

(f) The option of not implementing the activity

The option of not approving the activities will result in a significat loss of valuable information regarding the mineral status (in terms of diamonds) present on these properties. In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utalize these reserves for future phases will be lost.

ii) Details of the Public Participation Process Followed

Describe the process undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings. (Information to be provided to affected parties must include sufficient detail of the intended operation to enable them to assess what impact the activities will have on them or on the use of their land.

NOTICE OF THE APPLICATION SUBMISSION

Newspaper advertisement

An advertisement was placed in English in the local newspaper (Kalahari Bulletin) on 13/08/2020 notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Milnex CC. I&APs were given the opportunity to raise comments within 30 days of the advertisement.

Site notices

Site notices will be placed (as anticipated on the coordinates below) on site in English to inform surrounding communities and immediately adjacent landowners of the proposed development. I&APs will be given the opportunity to raise comments. Photographic evidence of the site notices will be included in **Appendix 6**. Below are the coordinates where the site notices will placed.

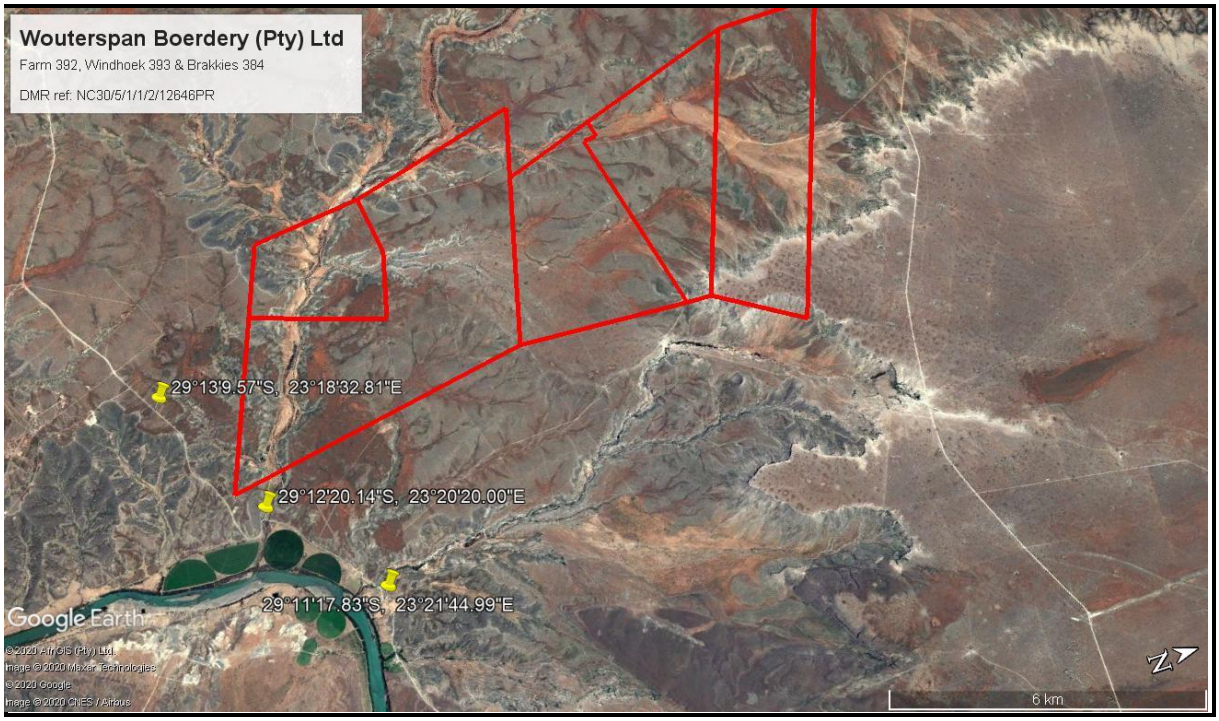


Figure 3: Site notice co-ordinates

Direct notification and circulation of Scoping Report to identified I&APs, land owners and occupiers

Identified I&APs, including key stakeholders representing various sectors, are directly informed of the proposed development and the availability of the Scoping Report via registered post on **03 August 2020** and were requested to submit comments by **03 September 2020.** A copy of the report is also available at the Milnex offices in Schweizer-Reneke, 4 Botha Street, Schweizer-Reneke and Potchefstroom (Waterberry Street, Waterberry Square, 1st floor, Office 5B, Potchefstroom), between 7:30AM and 5PM, Monday to Friday.

NOTICE OF THE APPLICATION ACCEPTANCE

Newspaper advertisement

An advertisement will be placed in English in the local newspaper (Kalahari Bulletin) notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Milnex CC. I&APs were given the opportunity to raise comments within 30 days of the advertisement.

Site notices

Site notices were placed on site in English to inform surrounding communities and immediately adjacent landowners of the proposed development. I&APs will be given the opportunity to raise comments. Photographic evidence of the site notices will be included in **Appendix 6**.

Direct notification and circulation of Scoping Report to identified I&APs, land owners and occupiers

Identified I&APs, including key stakeholders representing various sectors, are directly informed of the proposed development and the availability of the Scoping Report via registered post on **01 December 2020** and were requested to submit comments by **22 January 2021.** A copy of the report is also available at the Milnex offices in Schweizer-Reneke, 4 Botha Street, Schweizer-Reneke and Potchefstroom (Waterberry Street, Waterberry Square, 1st floor, Office 5B, Potchefstroom), between 7:30AM and 5PM, Monday to Friday.

Table 1: List of Stakeholders, Landowners, & surrounding landowners

Stakeholders	Landowners	Surrounding Landowner
Northern Cape Department of Environmental Affairs and Nature Conservation (DENC)	Carl Otto Hager	Hendrik Christoffel Swart
DMR Department of Mineral Resources, Northern Cape	Christian Gouws **(Resigned)**	Tarsus Landgoed (Pty) Ltd
	Antonio Jose Grilo De Almeida	
	Fernando Abel Grilo De Almeida	
The Department of Water & Sanitation (DWS)	Louis Botma Eiendoms trust	Wouterspan Boerdery Pty Ltd
NC Department of Agriculture, Forestry and Fisheries (DAFF)		Duikersvlei Boerdery (Pty) Ltd
Northern Cape Department of Agriculture, Land Reform & Rural Development		Johannes Frederick Gouws
Department of Public Works, Roads and Transport in NW (DPWRT)		TP Hentiq 6303 (Pty) Ltd
Northern Cape Department of Rural Development & Land Reform,		Louis Botma Eiendomstrust
The Wildlife and Environment Society of South Africa (WESSA)		Kock Family Communal Prop Association
Pixley Ka Seme District Municipality		Johannes Stephanus De Lange
		Mattheus Lötter
The Municipal Manager and Ward 4 Councilor at the Siyathemba Local Municipality		Swiegers Boerdery Trust
Municipal Manager and Ward 6 Councilor at the Siyancuma Local Municipality		Carl Louis Hager

Meetings:

NB: The interested and affected parties were given an opportunity to register by circulating, registered letters, press advert and letters.

A note was included that due to COVID-19, any meetings will be conducted virtually via Zoom or Microsoft Teams upon request by the I&APs.

Issues Raised by Interested and Affected Parties

Comments received during this period are attached as comment & response report as well as populated in the table of summary of issues raised.

i. Summary of issues raised by I&APs
(Complete the table summarising comments and issues raised, and reaction to those responses)

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issue and or response where incorporated
Organisation	**Contact person**			
Land Owner				
Farm 1/392	Christian Gouws **(Resigned)** Antonio Jose Grilo De Almeida Fernando Abel Grilo De Almeida	No comments received yet		
Farm RE/392, Windhoek 1/393	Louis Botma Eiendomstrust	No comments received yet		
Surrounding LandOwners				
Eynap 1/394	Hendrik Christoffel Swart	No comments received yet		
Brakkies 1/384	Carl Otto Hager	Mr Hager' comments were made through Mr. Gerhard Hager and the power of attorney given to Mr, Gerhard Hager to comment on his behalf. Please refer to comments raised by Mr		
Reads Drift 6/74 Reads Drift 5/74	Douglas Meat Company (Pty) Ltd (TP Hentiq 6303 (Pty) Ltd) Gerhardus Hager	Email dated 06/09/2020 as translated stated This letter first reached us by mail on 04.09.2020, possibly due to Covid-19 conditions. Applications or requests should be directed to the owners [DMC] Douglas Meat Company	The EAP on an email dated 09/09/2020 responded as follows "Dear Gerhard, We kindly acknowledge the receipt of your comment and that we have been corresponding with Vivienne who sent us information on DMC who are the	

		(pty) ltd (New name) and no longer T P Hentiq6303 (pty) ltd. 1. The property adjacent to the West Side of the application area is Brakkies384 which is leased and managed by DMC. 2. The property on the North East side RD74 / 5 and RD74 / 6 is the property of DMC. 3. The property on the South East side RD74 / 8 is the property of DMC. No letter has been received for this property yet. The objections and conditions by DMC have already been forwarded to previous writings dealing with groundwater, safety risk, dust and noise, property damage, theft and entry problems and access routes etc. The applicant mr. J Gouws of Wouterspan Mining (pty) ltd is reportedly possibly emigrating to Canada. This raises concerns for the adjoining owners about the consequences of rehabilitation and the manner in which the prospecting processes will take place. Please inform us. in around the issues of writing for notification to DMC of RD74 / 8 * We request that, before the above has not been completed, the application should first be reconsidered. **Please note that the email was received in Afrikaans and has been translated to the best of our abilities and meaning may have been lost in translation**	surrounding landowners to this application area. Please note that letters were posted on 03 August 2020 attached are the letters sent to the surrounding landowners for Reads Drift 5/74, 6/74 & 8/74. Also please find the attached proof of postage	
		An email as received on 09/09/2020 stated only letter no 5 on the list was sent to PO Box 69. **Please note that the email was received in Afrikaans and has been translated to the**		

		best of our abilities and meaning may have been lost in translation		
		On 09/09/2020 and 14/09/2020 Mr Hager sent an email to Vivienne Mabille and cc'd the EAP regarding the letters received. The email is enclosed	A responding email was sent on 17/09/2020 stating "Dear Gerhard, If I may ask which notification is still outstanding for you and for which property? You can send through your comments. You do not necessarily have to wait for all letters".	
		An email as received on 17/09/2020 stated I am following up to see if you attended to letters of Brakkies and RD74/8 which the different owners did not received to give their comments **Please note that the email was received in Afrikaans and has been translated to the best of our abilities and meaning may have been lost in translation**	A responding email was sent on 17/09/2020 stating "Dear Gerhard, Thank you for your email. The letter for the surrounding landowner who is Johannes Frederick Gouws was posted on 03 August 2020 attached is the letter. Please note that the letter was sent to Johannes Frederick Gouws only since the property search works showed that he is the owner of this portion. Kindly refer to The Search works attached also	
		Letter dated 18/09/2020 and translated stated the letters to RD74 / 5 and RD74 / 6 only reached us by registered mail on 04.09.2020, possibly due to Covid-19 conditions. BRAKKIES and RD74 / 8's letters were not received by registered post at all. In the future, applications or requests may also be directed to the owners [DMC] Douglas Meat Company (pty) ltd (New name) in place instead of T P Hentiq6303 (pty) ltd. 1. The property adjacent to the West Side of the application area is Brakkies384 which is leased and managed by DMC. The owner can be reached in China for Correspondence. 2. The property on the North East side up is RD74 / 5 and RD74 / 6 is the property of DMC.	An email dated 25/11/2020 responded to both the letter of 18/09/2020 and 28/09/2020 stating "Dear Mr Hager, Your letter 18.09.2020 is acknowledged. The details of DMC Your concern of the title deed is noted. However Milnex is in no position to comment on the Deeds of Transfer which Mr Gouws hold on RD74 / 8 as this is not part of the application area. For the letter received dated 28/09/2020, are comments are responses are as below: • It is not true that the report was not made available as the dropbox link was	

		3. The property on the South East side below is RD74 / 8 is the property of DMC. However, here is an issue for permission by DMC. The applicant Mr. J Gouws of Wouterspan Mining (pty) ltd is in possession of the Deeds of Transfer of RD74 / 8 while DMC is the owner of the property. The applicant Mr. J Gouws hereby puts the owner of RD74 / 8 at risk that he can use the property and / or abuse it to his advantage with the Deed of Transfer. This gives him easier access to the prospecting area for water and access roads etc. to the detriment of DMC. Some of the objections by DMC have already been passed on in previous writings, dealing with groundwater, safety risk, dust and noise, property damage, theft and problems with illegal entrances and access routes etc. We request that; before the above and Deeds of Transfer are still in place, the application must first be reconsidered until it is finalized. **Please note that the email was received in Afrikaans and has been translated to the best of our abilities and meaning may have been lost in translation**	sent on 19/08/2020 to Vivienne Mabille and to your email address and also an electronic copy was sent on 25/08/2020 • The application is for prospecting right is for bulk sampling thus the applicant applied for pits and trenches • The concern on specialist studies is noted. Also I would like to refer you to the email sent to you on 18/09/2020 which addressed your concern on the screening tool and stated that the screening tool is most of the time not accurate, however the EAP can motivate the reason as to why the studies are not necessary and conduct those deemed necessary. Please also note that we received acceptance for this application and the other portions where excluded. The applicant will be continuing with the application on the below mentioned properties (see map for reference) • The remaining extent of the farm 392, • Portion 1 (Uitzicht) of the farm 392, • Portion 1 (Tevrede) of the farm Windhoek 393	
		A letter dated 28/09/2020 had comments on mainly two (2) issues which the neighbour would like to see addressed. The issues are specialist studies to be conducted and the issue of the application having trenches. Please refer to the letter for content		

			Email dated 01/12/2020 stated "Dear Mr Hager, Kindly find the attached letter as a notice for an EIA process for the acceptance of a Prospecting Right application. Note that Douglas Meat Company (Pty) Ltd (also known as TP Hentiq 6303 (Pty) Ltd) was identified as an adjacent landowner for RD74 / 5 & RD74/6. The draft SR is attached and more documents pertaining to this application will be found on dropbox link below. https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0"	
Windhoek RE/393	Louis Botma Eiendomstrust	No comments received yet		
Reads Drift RE/4/74	Kock Family Communal Prop Association	No comments received yet		
Doorn Vley 391	Swiegers Boerdery Trust	No comments received yet		
The Municipality in which jurisdiction the development is located				
Siyancuma Local Municipality	Municipal Manager: Mr. Hastings Nel	No comments received yet		
Siyathemba Local Municipality	Municipal Manager Mr. Gert Bessies			
Municipal councilor of the ward in which the site is located				
Siyancuma Local Municipality Ward 6 Councillor	To whom it may concern	No comments received yet		

Siyathemba Local Municipality 4 Ward Councillor	To whom it may concern			
Organs of state having jurisdiction				
Northern Cape Department of Environmental Affairs and Nature Conservation (DENC)	Mrs. Doreen Werth	No comments received yet		
Department of Mineral Resources and Energy, Northern Cape (DMRE)		A letter dated 11/11/2020 stated that the application has been accepted on Portion 1 (uitzicht) of the farm 392 and portion 1 (Tevrede) of the farm Windhoek 393 • An amended sketch Plan was requested • The following need to be done to comply with the instructions • Notify and consult the landowner and lawful occupier • Lodge application with DWS • Submit BEE documents The acceptance does not grant the right to commence with prospecting activities		
	Mr Vincent Muila		An email with a Public Participation Plan was sent to Mr Muila on 25/11/2020. The email stated "Dear Vincent, Hope you are still doing good Please find the attached Public Participation Plan. Kindly note I do not know who the official is however we received an acceptance from MLA. May you kindly send to the relevant person."	
The Department of Human settlement, Water & Sanitation (DWS)	Mr. Abe Abrahams	No comments received yet		

NC Department of Agriculture, Forestry and Fisheries (DAFF)	To whom it may concern	No comments received yet		
Northern Cape Department Of Agriculture, Land Reform & Rural Development	Mr. W.J.J. de Bruyn	No comments received yet		
NC Department of Agriculture, Forestry and Fisheries (DAFF)	Mr. Harm Vorster	No comments received yet		
Department of Roads and Public Works (DRPW)	**HOD: Ms. Ruth Palm** Mr Tshiamo Pitso	No comments received yet		
Northern Cape Department of Rural Development & Land Reform,	Land Claims Commissioner: Regional Offices Pabalelo Mokale	Letter dated 05/08/2020 states that there is no land claim on the database in respect of the properties. This includes the database for claims lodged by 31 December 1998; and those lodged between 1 July 2014 and 27 July 2016.	Enquiry sent 04/08/2019 to Pabalelo Mokale inquiring if the properties on the application area has claims on them	
Other–				
Pixley Ka Seme District Municipality	Municipal Manager: Mr Elias Ntoba	No comments received yet		
WESSA (National Office)	Graham Avery		An email dated 03/08/2020 stated "Good morning Graham. We would like to request comments for Prospecting Right of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite on the remaining extent and portion 1 (Uitzitch) of the farm 392, portion 1 (Tevrede) of the farm Windhoek 393, the remaining extent of portion 1 (Oranje Oord) and portion 2 (portion of portion 1) of the farm Brakkies 384, Registration Division: Hay; Northern Cape Province.	

			The property is located approximately 35km South of Griekwastad in the Northern Cape Province. DMR Ref number: NC/30/5/1/1/2/12646PR"	
		An email dated 03/08/2020 stated "Hi, I have forwarded your request to colleague Dr David Morris at the McGregor Museum. He is a far more appropriate commentator as I am unfamiliar with the area."		
			Email dated 12/01/2020 stated "Dear, Kindly find the attached letter as a notice for an EIA process for the acceptance of a Prospecting Right application. The draft SR is attached and more documents pertaining to this application will be found on dropbox link below. https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0	
I&AP 1	David Morris	Email dated 03/08/2020 from Dr David Morris stated "*Dear Ofentse Moagaesi, Dr Graham Avery referred your enquiry to me for attention.* *There is a link for the report in your accompanying letter - but the link tells me the dropbox folder is empty. Please could you email to me the report in question. I note that the area intersects the south-western-most corner of the Ghaap Escarpment - the farm Windhoek - where many years ago I recorded a shelter with rock paintings.*"		

			An email with the Dropbox link containing application documents was sent on 04/08/2020	
			Email dated 12/01/2020 stated "Dear, Kindly find the attached letter as a notice for an EIA process for the acceptance of a Prospecting Right application. The draft SR is attached and more documents pertaining to this application will be found on dropbox link below. https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0	
I&AP 2	Vivienne Mabille	An email as received on 16/08/2020 stated "Dear Mr. Percy Sehaole and Ms. Lizanne Esterhuizen RE NOTICE OF APPLICATION FOR A PROSPECTING RIGHT COMBINED WITH A WASTE LICENSE APPLICATION AND SUBSEQUENT ENVIRONMENTAL IMPACT ON A COMBINATION OF FARM PORTIONS IN THE NORTHERN CAPE. This letter is in response to your notice board placed on or near the Farm Brakkie as attached. Please acknowledge the receipt of this email both to me and to the email addresses of the Hager family as supplied. Please also find attached a letter from Mr. Carl Louis Hager, ID no. 8109015077085, the owner of the Farm Brakkies in the Hay District (Northern Cape) granting proxy of attorney to Mr. Arrie Gerhardus Hager, ID. No. 5305125021087, the co-lessee of the farm on behalf of DMC (Douglas Meat Company). Mr. Arrie Gerhard Hager will, therefore, address all matters pertaining to the prospecting and		

		mining by Wouterspan Mining on behalf of the owner of the farm, himself as the co-lessee and the DMC. Mr. A.G. Hager and the DMC is my client and I will assist them with the review of the application. Therefore, please register myself as well as Mr. Arrie Gerhardus Hager and the DCM as interested and affected parties. Please forward the BID and any other environmental application documents, including the NEMA Screening tool results to me and Mr. Hager. My email is as attached (vivienne@proearth.co.za) and the other two contact emails (send to both) is as follows: agh@douglas.co.za, hanhager7@gmail.com. The Telephone number of Mr. AG Hager is as follows: 0724636500. In the interim, we wish to bring to your attention that the Hager's object to prospecting at this time for the following reasons: 1. The owner, lessees and legal occupant of the property has not been contacted in writing; 2. Brakkies is an active farm of approximately 3000 hectare with farming activities taking place; 3. The buildings on the farm consist of houses and stores; 4. Infrastructure includes perimeter and subdivision fences that are required for farming purposes; 5. There are also boreholes, pumps, dams and feeding troughs and pipelines supplying water to both humans and livestock.; 6. There is no water to spare for drilling; 7. Other structures are 100+ year old lime buildings, three dams and three kraals;		

		8. There are no roads through the property, only two spoor tracks; 9. Indigenous vegetation is present and is support livestock and game; 10. Oumansoutbos is used for feeding. In the area, it only occurs on this farm and was a saving grace for livestock and game during the extreme drought. 11. Several farming activities take place on the farm and include: a. Livestock farming; b. Game farming; c. Bee farming; d. "Oumansoutbos" (as feed production), which occurs only on this farm e. Wood The impact on the above cannot be assessed from the owner and lessees' perspective due to a lack of information. Therefore, we would also like to receive an electronic copy of the Background Information Document (BID) and an electronic copy or the Draft BAR for review so we can submit our final comments. We assume the comments will be addressed in the Final BAR and we will appreciate an electronic copy of the Final BAR for appeal purposes."		
		An email as received on 16/08/2020 stated "Dear Mr. Sehaole and Ms. Esterhyuysen. Please also note that there are burial sites on the farm and is therefore, another point to be added to the objections"	Email dated 19/08/2020 stated "Dear Vivienne, Thank you for your email. Your comments are noted On the 03/08/2020, a letter was posted to the land owner for the purpose of public participation. Please find the attached letter.	

			Mr Broodryk on CC who is my colleague will still continue with consultation particularly for landowners. Below is the dropbox link with documents pertaining to this application. https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0"	
		An email as received on 24/08/2020 stated "Dear Percy, Thank you for the information, it makes things clearer to me. They have not received any information to date. From your image, it appears that the family might be neighbours rather than owners. There was some confusion regarding the name and numbers of the farm (Brakkies) and some outstanding issues related to the title deed and transfer of ownership (of Portion 2 of 384), which might have to be e=dealt with. There might be issues regarding the shared access road but at this stage (I am not sure if you are applying for bulk sampling)? Therefore, we would appreciate an electronic copy of the BAR and the screening tool assessment. Thank you.	Email dated 25/08/2020 stated Dear Vivienne, Thank you for your email. All other documents are in the dropbox link I sent you on the email below. Attached are the documents as per request"	
		Responding email was received on 25/08/2020 stating "Thank you. Much appreciated."		
		An email as received on 09/09/2020 stated "Dear Percy, Please send me (dropbox) the Draft Scoping report electronically if you don't mind. It is probably in electronic format so should not take too much of your time. I see the area is classified as highly sensitive CBA, especially Aquatic as well as high on	Email dated 18/09/2020 stated "Dear Vivienne, Definitely, the screening tool is most of the time not accurate, however the EAP can motivate the reason as to why the studies are not necessary and conduct those deemed necessary.	

		Archaeology and paleontological. The screening tool is not always right so I expect your specialists will sort this out. From the equipment and the layout, as well as the fact that you are supplying a Scoping Report, you will probably do bulk sampling. Will the Brakkies section with sensitive aquatic areas be targeted for bulk sampling as well? Are you using water from the river, etc, just basic information you probably address in your scoping report and I don't want to list a lot of issues for which you already addressed. I doubt there are big issues that could affect my client based on your location relative to my client, but I need to do the due diligence and can only do that if I have the report. I would appreciate your assistance in this regard.	Kindly note that we are still waiting for the acceptance letter for this application. The applicant has applied for bulk sampling. BULK SAMPLING: 6724.928 Ha – 100 pits (3m x 2m x 4m) and 50 trenches (60m x 40m x 3m). In cases that the applicant would like to work in sensitive areas/wetlands, then they will need to apply for C&I with DWS. I did send you the Scoping report on 25/08/2020 and the dropbox link already on 19/08/2020. Below is the dropbox link once more: https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0	
		An email as received on 14/09/2020 from Vivienne directed to Mr Hager stated Hello Gerhard Only one letter is needed as long as they refer to all the properties. This they did so it is legally correct. All I disagree with is to refer to "Surrouding Landowner". This is the first time I've seen it. This is problematic because you do not know to whom the person addressed the letter. One usually identifies the person / business out of respect and also that the post office (especially in the small towns) can assist. Perhaps it is better to refer to "the landowener of ...". Common reference to adjacent landowner etc is usually on an email.	Email dated 17/09/2020 stated “Dear Vivienne, Thank you for the email and explanation to Gerhard. I think the issue of the word Surrounding Landowner and adjacent landowner is just an issue of preference. Neither one is wrong. Kindly note that I did send you an email with a dropbox link of the documents on 19/08/2020. Also you asked for the report and the screening tool report, I did send it on 25/08/2020	

		Again, this is my personal opinion. But State officials have to decide. Since you are acting on behalf of the owner (Proxy) it is sufficient, in my opinion, that you have been notified. However, if the address is correct I can not think it is legally wrong. They just need to be able to prove that the IAPs received a pass - for example as an email or registered mail. The aim is to make you aware that a development is going to take place and what they are going to do and how they are going to do it. At the moment I can not comment because I did not receive the environmental documents. They must make the document available. It's available - somewhere, but I can still not drive from the Cape and go read it and hopefully they will send it to me as a digital copy. We'll just wait and see. **Please note that the email was received in Afrikaans and has been translated to the best of our abilities and meaning may have been lost in translation**		
		An email as received on 09/09/2020 stated "Dear Percy I believe you have been receiving correspondence from Mr. Hager. He forwarded the above to me. PLease can you provide some feedback as to the road use and water usage agreement or arrangement between the parties? It seems that this issue has not been resolved. The transfer of the title deed can also cause unnecessary problems and need to be	Email dated 17/09/2020 stated "Dear Vivienne, Thank you for your emails. The concern of the title deed is noted from Mr Hager. I informed him that Milnex is in no position to comment on the Deeds of Transfer which Mr Gouws hold on RD74 / 8. Please also note that we received acceptance for this application and the other portions where excluded. The	

		addressed. Will you please see what you can arrange concerning that?"	applicant will be continuing with the application on the below mentioned properties (see map for reference) • The remaining extent of the farm 392, • Portion 1 (Uitzicht) of the farm 392, • Portion 1 (Tevrede) of the farm Windhoek 393	
		An email as received on 12/01/2020 stated "Dear Percy Please note that this extract in your Scoping Report is incorrect. It is incorrect to state that no comment was received. His comments were made through Mr. Gerhard Hager and the power of attorney given to Mr, Gerhabrd Hager, who is standing in for the owner, must be highlighted.  I think there is consensus among most EAPS that the screening tool is far from accurate. The concern by Mr Hager was that where prospecting applications normally address environmental issues as part of the application, for bulk sampling, it should no longer be the case. I think it is a standard approach by EAPS to address it as per the Mining Work Programme, but the comment was that maybe as environmental people we should rethink the approach. As environmental consultants and the DMR, we should impress on the applicants that specialist studies be done before the prospecting rights are granted to ensure sensitive areas are excluded or in a phased approach where the results are presented to the DMRE before actual invasive work begins (like he stated, a stop-and-check phase). The	Email dated 12/01/2020 stated "Dear, Kindly find the attached letter as a notice for an EIA process for the acceptance of a Prospecting Right application. The draft SR is attached and more documents pertaining to this application will be found on dropbox link below. https://www.dropbox.com/sh/wh6v5qs8a7o3iwz/AADf-D8YGBPwphWeejiBCix1a?dl=0	

		concern by Mr Hager was that experience has shown that bulk sampling for diamonds is a rough and tumble business with scarring of previous activities still clearly visible. However, it is the DMRE that has to take the administrative decision and one would assume they have considered all the issues. Mr. Hager may still wish to respond to the Scoping Report if he still has concerns about the remaining farms and after the exclusion of the Portion 2 (A Portion of Portion 1) of the Farm Brakkies 384.		
			Email dated 12/01/2020 stated "Dear Vivienne, Complements of the new year. Thank you for the comments received and the extract of No comments received for Mr Otto Hager is noted and will be rectified to reflect comments as received from Mr Gerhard Hager. On the issue of specialist studies, it is definitely a good practice for EAPs to identify environmental issues and make sure they are addressed accordingly by people who have expertise in that field."	

ii. The Environmental attributes associated with the sites

(1) Baseline Environment

The baseline environment is described with specific reference to geotechnical conditions, ecological habitat and landscape features, Soil, land capability and agricultural potential, climate and the visual landscape.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2645	Solar PV	Approved	17.7
2	14/12/16/3/3/1/484	Solar PV	Approved	14
3	12/12/20/1942	Solar PV	Approved	22.7

(a) Type of environment affected by the proposed activity.
(its current geographical, physical, biological, socio- economic, and cultural character).

Geology and Soils

Karoo Supergroup

Dwyka Group (C-Pd – tillite, sandstone, mudstone, shale)

Classification
The Dwyka Group forms the lowermost and oldest deposit in the Karoo Supergroup basin and is underlain by the basaltic lava of the Randian Ventersdorp Supergroup. Permo-carboniferous glacially-related sediments of the Dwyka Group underlie the thin, superficial cover of Gordonia sands, calcrete and Late Cenozoic alluvium. The Dwyka tillite is mostly a very fine-grained, blue-grey rock comprised of clay matrix with inclusions (or clasts) of many other fragments picked up by glaciers during their travels.

Ecological habitat and landscape features

Northern Upper Karoo

According to Mucina and Rutherford (2006:340), the Northern Upper Karoo vegetation covers the Northern Cape and Free State Provinces which include the Northern regions of the Upper Karoo plateau from Prieska, Vosburg and Carnarvon in the west to Philipstown, Petrusville and Petrusburg in the east. Bordered in the north by Niekerkshoop, Douglas and Petrusburg and in the south by Carnarvon, Pampoenpoort and De Aar. A few Patches occur in Griqualand West. It is situated on an altitude of 1000m – 1500m.

The shrubland area is dominated by dwarf karoo shrubs, grasses and *Anacia mellifera* subsp. detinens and some other low trees (especially on sandy soils in the northern parts and vicinity of the Orange River). Flat to gently sloping, with isolated hills of Upper Karoo Hardeveld in the south and Vaalbos Rocky Shrubland in the northeast and with many interspersed pans (**Figure 6**).

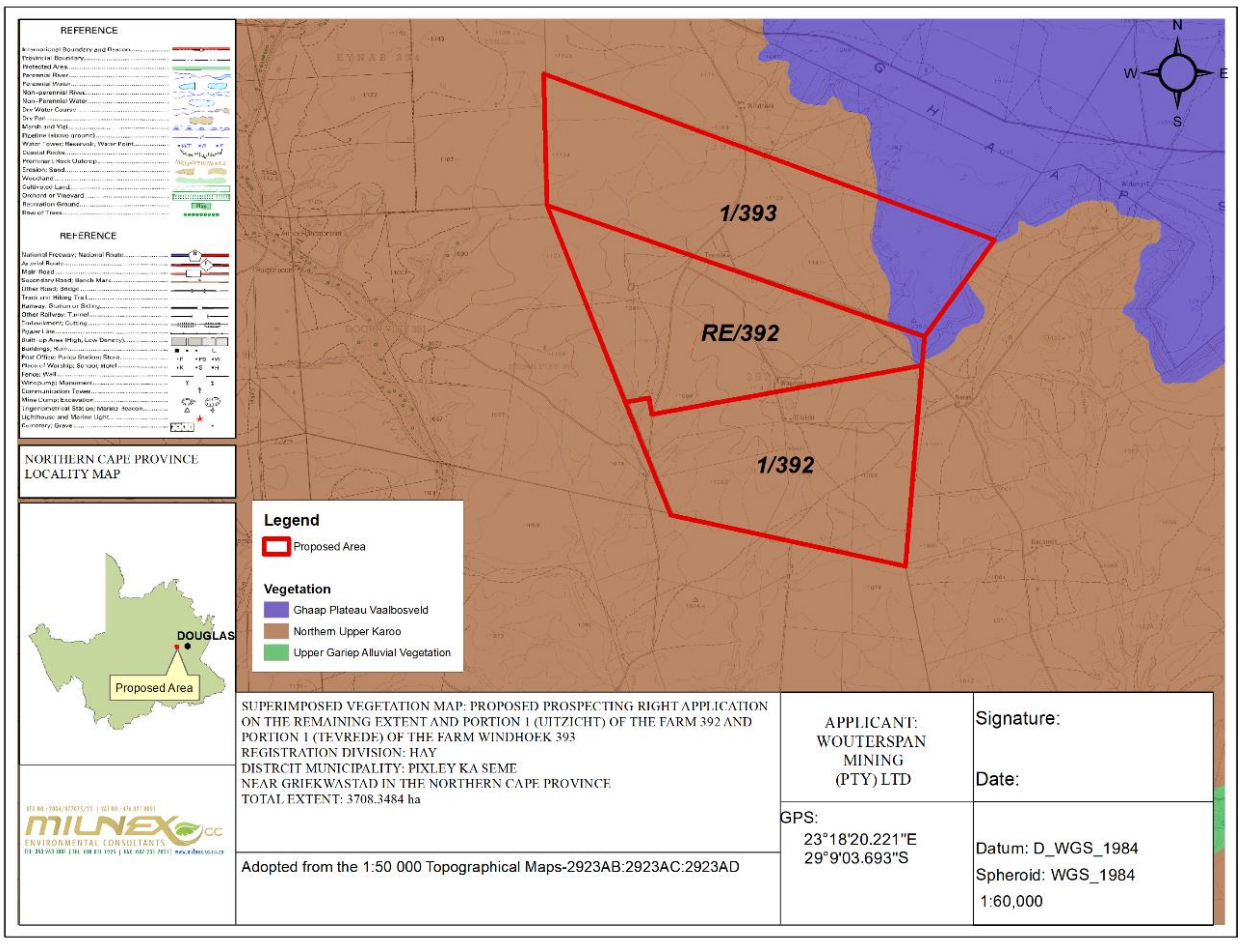


Figure 6: Vegetation types associated with the study site (Mucina & Rutherford 2006/2018).

According to the DEA screening tool the following were identified for environmental sensitivity of the proposed site

<u>Agriculture Theme Sensitivity</u>

According to the DEA screening tool, the application area falls within low agriculture sensitivity area (see figure 7 below)

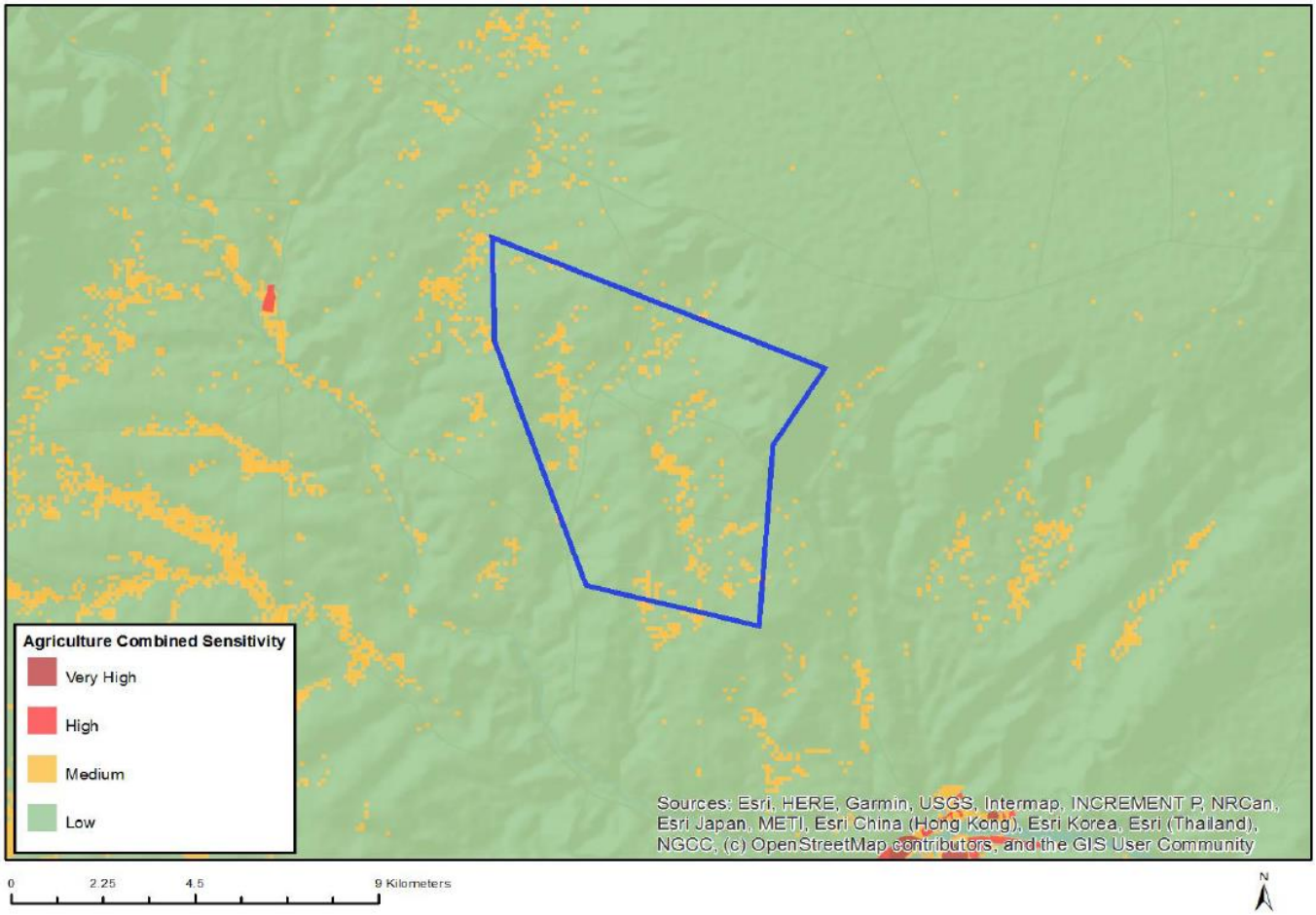


Figure 7: Agriculture Theme Sensitivity

Aquatic Biodiversity

According to the DEA screening tool, the application area falls within very high Aquatic Biodiversity (see figure 8 below)

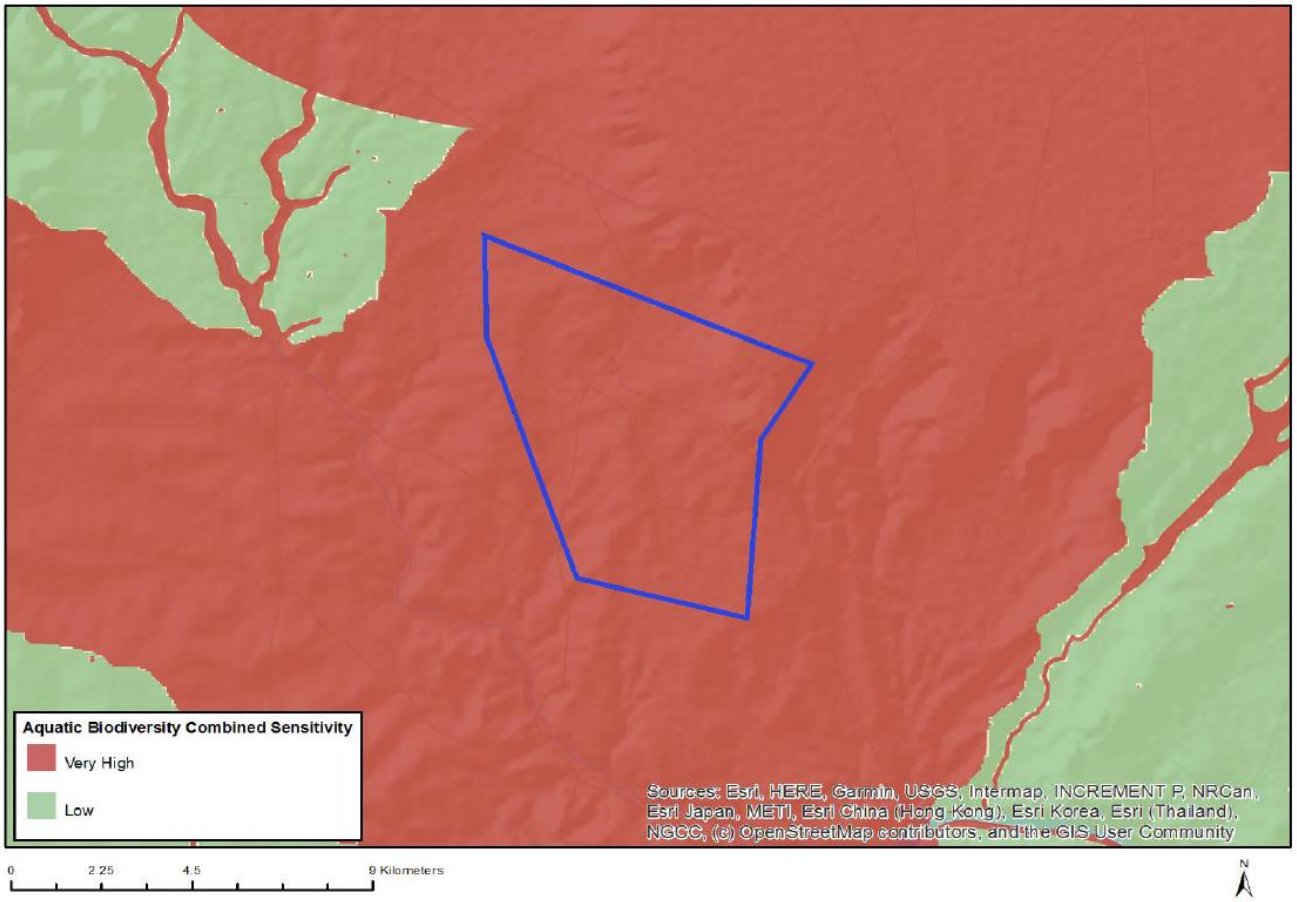


Figure 8: Aquatic Biodiversity

Archaeological and Cultural Heritage

According to the DEA screening tool, the application area have certain targeted areas with high sensitivity for Archaeological and Cultural Heritage, however, the majority of the farm doesn't fall on any Archaeological and Cultural Heritage (see figure 9 below). A qualified specialist will be appointed to conduct a Heritage Impact Assessment.

Special attention will be given to the identification of possible cultural or heritage resources on site.

However heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. Therefore if such resources are found during the prospecting or development activities, they shall not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately and work will stop.

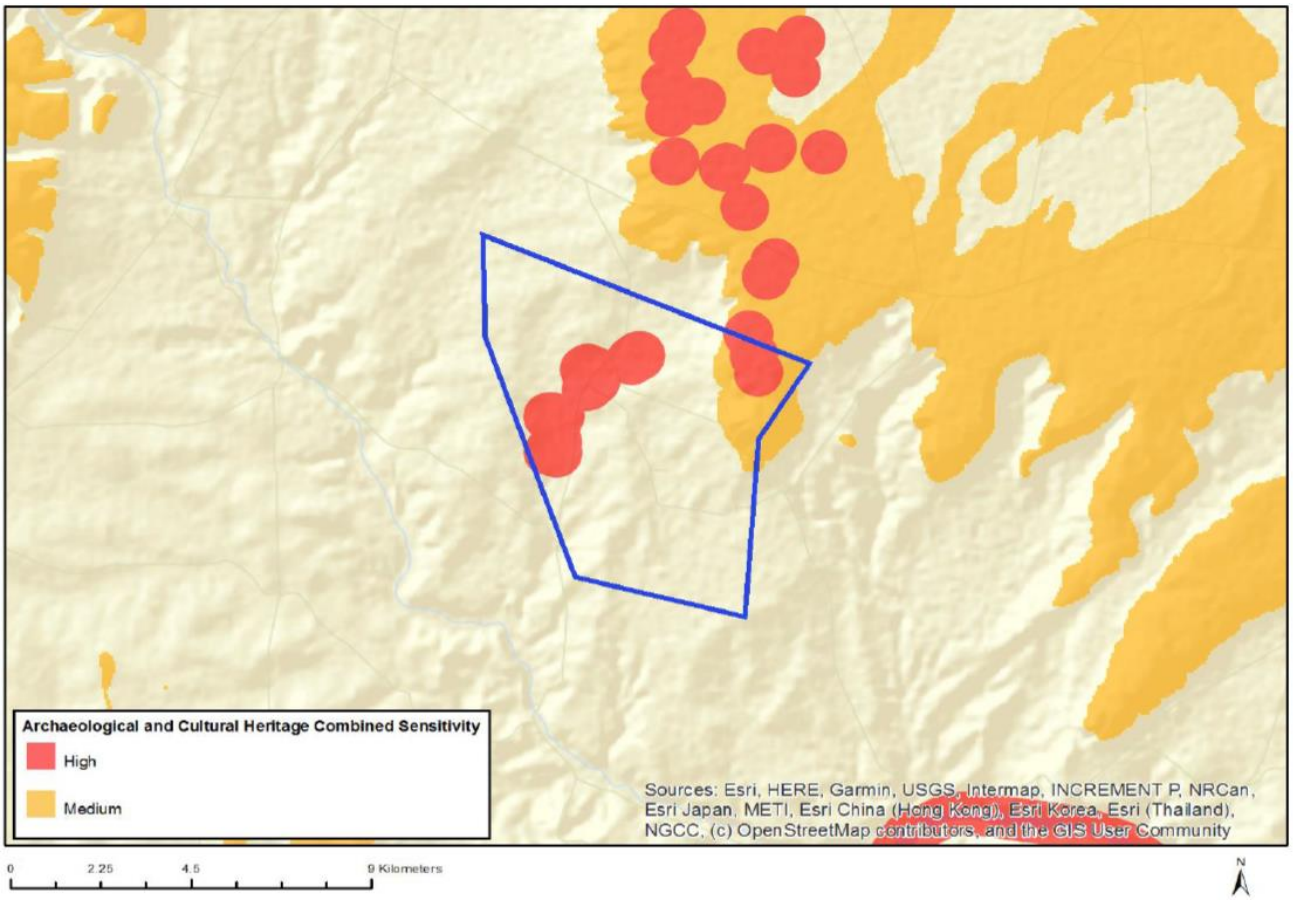


Figure 9: Archaeological and Cultural Heritage

Description of the socio-economic environment

- Socio-economic conditions

The municipality has relatively high levels of basic services, partially integrated society, medical facilities in Douglas and Griekwastad, one of the biggest correctional services in the province and is the neighbour to Kimberley, the provincial and legislative capital of the province. It still has major inequalities to overcome and in common with the rest of the country, a skew and sluggish economy to transform and speed up.

Economy

The following economic sectors that contributed the most to the DRSMDM Gross Domestic Product (GDP):
» Community services (33.1%),
» Agriculture (17.1%)
» Finance - 16.2%
» Trade (12.7%),
» Transport (9%),
» Manufacturing (4%)
» Mining (3.2%),
» Construction (3.2%)

Siyancuma Local Municipality

Siyancuma Local Municipality is part of Pixley Ka Seme District Municipality.

MDB code: NC078

Description: The Siyancuma Local Municipality is situated within the Pixley Ka Seme District of the Northern Cape Province. It is bordered by the ZF Mgcawu and Frances Baard Districts in the north, Siyathemba and Thembelihle in the south, the Free State Province in the east, and the ZF Mgcawu District in the west. It is one of the eight municipalities that make up the district, accounting for 16% of its geographical area.

Area: 16 753km²
Cities/Towns: Campbell, Douglas, Griekwastad, Schmidtsdrif
Main Economic Sectors: Agriculture, mining
(https://municipalities.co.za/overview/1176/siyancuma-local-municipality)

Siyathemba Local Municipality

Siyathemba Local Municipality is part of Pixley Ka Seme District Municipality.

MDB code: NC077

Description: The Siyathemba Local Municipality is a Category B municipality situated within the Pixley Ka Seme District of the Northern Cape Province. It is one of the eight municipalities in the district. The municipality was established as a result of the Local Government Municipal Structures Act of 1998 on 22 September 2000.

Initially it was established as 'Primanday', which was a combination of the names Prieska, Marydale and Niekerkshoop. However, this was not an acceptable solution and on the 25th June 2001, as a result of a Council decision and Provincial Government notice 22/2001, became Siyathemba. The meaning of Siyathemba is 'we hope'. Prieska was originally named Prieschap, a Koranna word meaning 'place of the lost she-goat', and used to be a fording place for travellers over the Orange River. Known to the locals as 'the gem of the Northern Cape', Prieska is the seat of the municipality and is located on the hills of the Doring Mountains on the southern banks of the Orange River.

Prieska's infrastructure is impressive – it has Eskom power; an abundant water supply from the Orange River, with the Gariep and the Vanderkloof Dams on the upstream side of the river; easy access to the main railway line to Namibia; good tarred road linkage with Kimberley, Upington and De Aar; two landing strips for light aircraft; and complete and reasonably inexpensive industrial stands, with or without siding facilities. Industrial activities include: grain silos; a cotton mill; a bakery; manufacture of furniture, built-in cupboards; cattle fodder pellets; and a tiger's eye processing plant.

Niekerkshoop is attractively placed between hills, and large trees shade the streets. There is no domestic water supply but irrigation water is supplied by a spring to the north of the town. On the north-west side of Marydale is a rich underground water source, and the main means of water supply is by borehole and wind pumps. It depends mainly on sheep farming.

Area: 14 727km²

Cities/Towns: Copperton, Marydale, Niekerkshoop, Prieska

Main Economic Sectors: Government services (28.9%), financial services (23.8%), agriculture (16.4%)

Land capability

The proposed development falls within an area used for grazing and the site is therefore considered to have limited environmental sensitivity as a result. The National Department of Agriculture (2006) classified land capability into two broad categories, namely land suited to cultivation (Classes I – IV) and land with limited use, generally not suited to cultivation (Classes V – VIII).

The site falls within Class VII and therefore the agricultural potential of the site is limited and it is unlikely that the change in land use will impact significantly on agricultural production (AGIS, 2016).

Refer to Land capability map attached as **Appendix 5 & figure 10 below.**

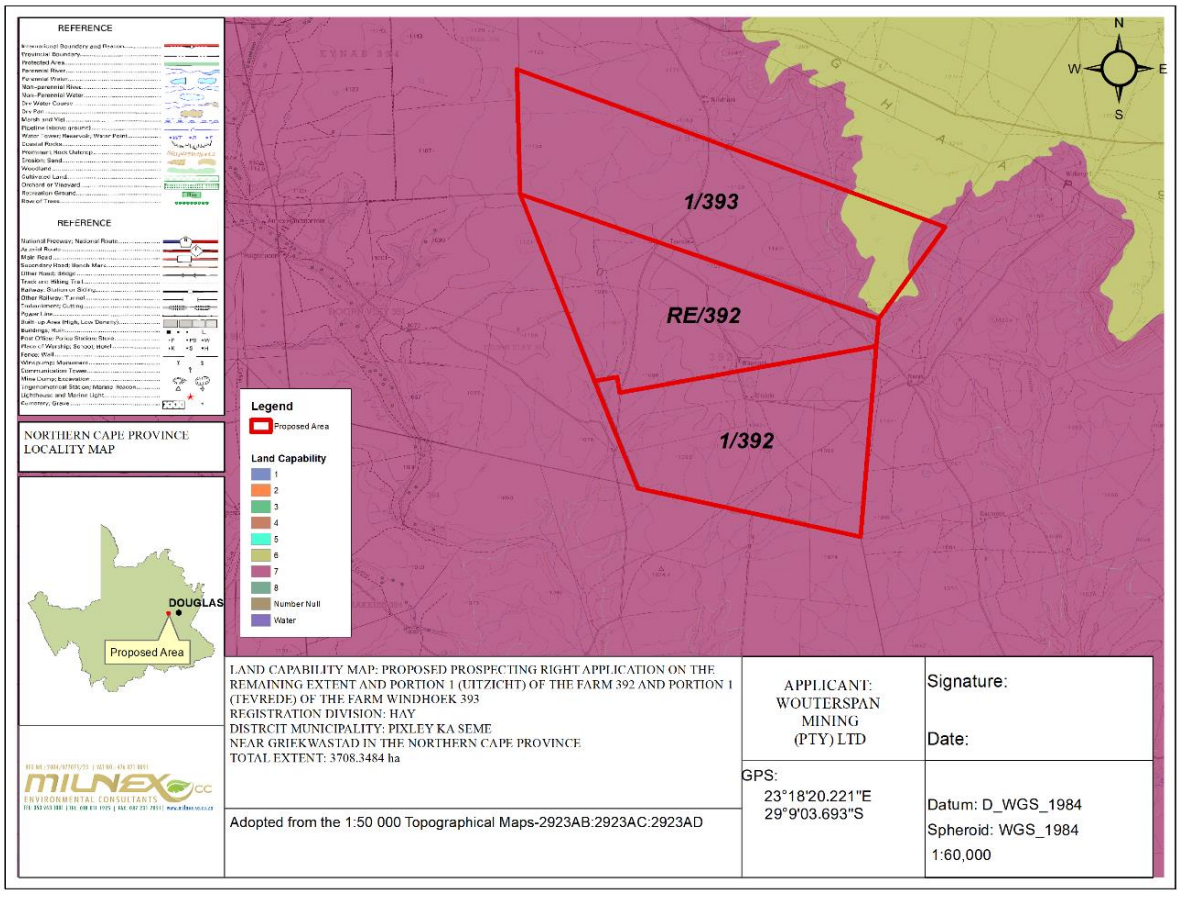


Figure 10: Land capability

(b) Description of the current land uses.

Below is the land cover of the farm which consist mostly of natural land

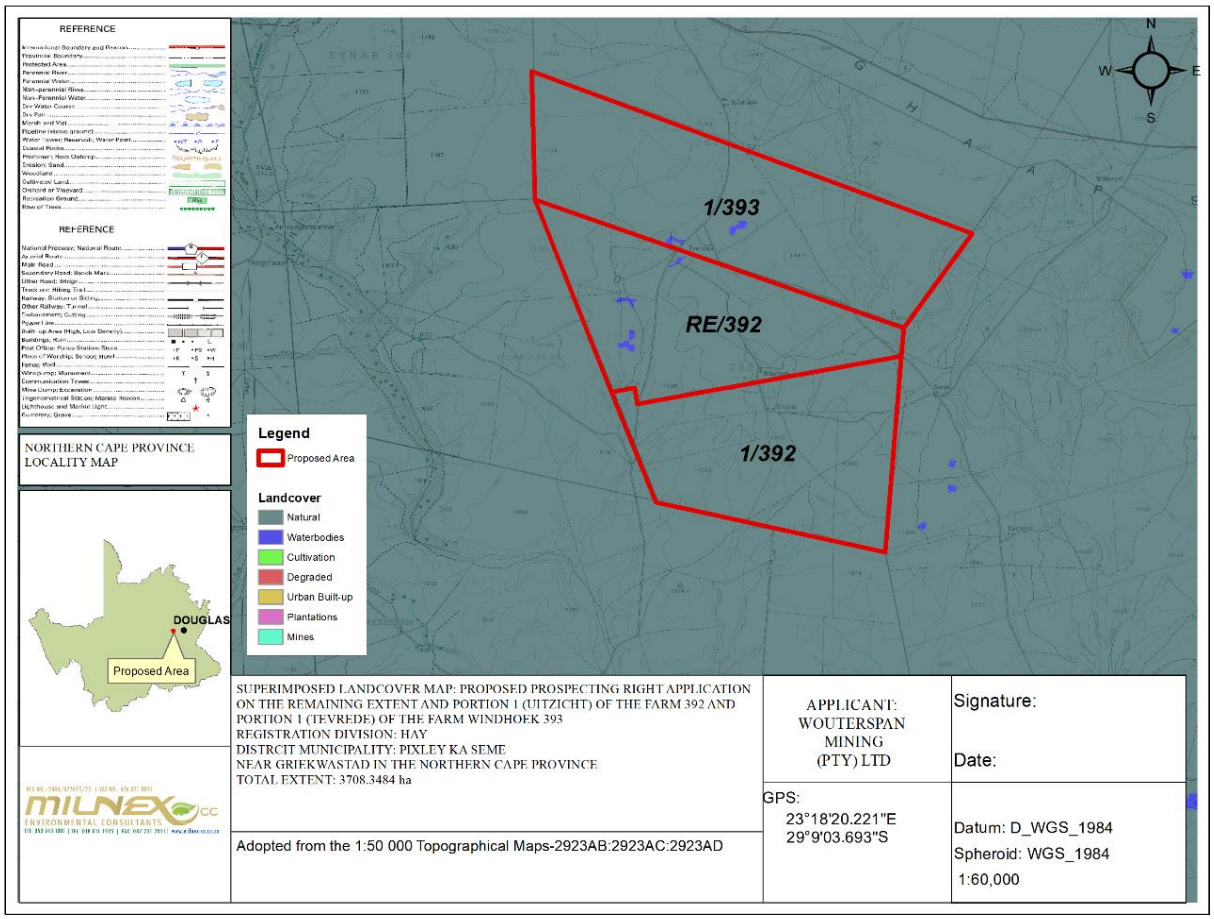


Figure 11: Land cover

(c) Description of specific environmental features and infrastructure on the site.

The proposed area consists Gravel roads, fencing, houses, stream passing along other portions, windmills and tributaries were identified on site. Where applicable a Water Use License Application will be launched for conducting mining operations. All infrastructure will be temporary and/or mobile.

(d) Environmental and current land use map.
(Show all environmental, and current land use features)

A Locality map is attached in **Appendix 3**.

iii. Impacts identified

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability and duration of the impacts

- Impacts during construction phase:
  - Impacts on the fauna and flora
  - Impacts on the soil
  - Impacts associated with the geology of the site

- Impacts on existing services infrastructure
- Impacts on surface water (wetlands/pans)
- Temporary employment and other economic benefits
- Impacts on heritage resources

➢ Impacts during the operational phase:
- Impacts on the soil
- Impacts associated with the geology of the site
- Impacts on surface water (wetlands/pans)
- Increase in employment and other economic benefits
- Visual impacts
- Generation of income to the Local Community
- Pressure on existing services infrastructure and water sources.

➢ Impacts during the decommissioning / mine closure phase:
- Loss of permanent employment & the creation of temporary employment

iv. Methodology used in determining the significance of environmental impacts (Describe how the significance, probability, and duration of the aforesaid identified impacts that were identified through the consultation process was determined in order to decide the extent to which the initial site layout needs revision).

Scoping methodology

The contents and methodology of the scoping report aims to provide, as far as possible, a user-friendly analysis of information to allow for easy interpretation.

➢ Checklist: The checklist consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts.
➢ Matrix: The matrix analysis provides a holistic indication of the relationship and interaction between the various activities, development phases and the impact thereof on the environment. The method aims at providing a first order cause and effect relationship between the environment and the proposed activity. The matrix is designed to indicate the relationship between the different stressors and receptors which leads to specific impacts. The matrix also indicates the specialist studies, which will be submitted as part of the Environmental Impact Report in order to address the potentially most significant impacts.

Checklist analysis

The table below provides a checklist, which is designed to stimulate thought regarding possible consequences of specific actions and so assist scoping of key issues. It consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts. The table highlights certain issues, which are further analysed in matrix format.

Table: Environmental checklist

QUESTION	YES	NO	Un-sure	Description
1. Are any of the following located on the site earmarked for the development?				

I. A river, stream, dam or wetland	✕			Stream passing along other portions, windmills and tributaries
II. A conservation or open space area		✕		None.
III. An area that is of cultural importance			✕	
IV. Site of geological significance		✕		
V. Areas of outstanding natural beauty		✕		None.
VI. Highly productive agricultural land		✕		None
VII. Floodplain		✕		None
VIII. Indigenous forest		✕		None.
IX. Grass land		✕		None.
X. Bird nesting sites			✕	
XI. Red data species			✕	
XII. Tourist resort		✕		None.
2. Will the project potentially result in potential?				
I. Removal of people		✕		None.
II. Visual Impacts	✕			The visual impact will be managed; however it may be difficult since the site is situated next to the road
III. Noise pollution		✕		The noise impact is unlikely to be significant.
IV. Construction of an access road		✕		None. Access will be obtained from gravel road
V. Risk to human or valuable ecosystems due to explosion/fire/ discharge of waste into water or air.		✕		None.
VI. Accumulation of large workforce (>50 manual workers) into the site.		✕		Approximately 15 employment opportunities will be created during the construction and operational phase of the project.
VII. Utilisation of significant volumes of local raw materials such as water, wood etc.	✕			The application area will use 2 x 16 feet washing pans, the amount of water for the pans will be 34 000 L/hour from which 30% is re-used.
VIII. Job creation	✕			Approximately 15 employment opportunities will be created during the construction and operational phase of the project.
IX. Traffic generation		✕		None.
X. Soil erosion		✕		Only areas earmarked for mining will be cleared. Mining will be phased and the topsoil stockpiled separately. Concurrent rehabilitation will take place. The soil also has a low erosion potential.

XI. Installation of additional bulk telecommunication transmission lines or facilities		✕		None.
3. Is the proposed project located near the following?				
I. A river, stream, dam or wetland	✕			Orange River
II. A conservation or open space area			✕	
III. An area that is of cultural importance			✕	
IV. A site of geological significance			✕	None.
V. An area of outstanding natural beauty			✕	None.
VI. Highly productive agricultural land			✕	Yes
VII. A tourist resort			✕	None.
VIII. A formal or informal settlement		✕		None.

5.1 Matrix analysis

The matrix describes the relevant listed activities, the aspects of the development that will apply to the specific listed activity, a description of the environmental issues and potential impacts, and the significance and magnitude of the potential impacts. The matrix also highlights areas of particular concern for more in depth assessment during the EIA process. Each cell is evaluated individually in terms of the nature of the impact, duration and its significance – should no mitigation measures be applied. This is important since many impacts would not be considered insignificant if proper mitigation measures were implemented. The matrix also provides an indication if mitigation measures are available.

In order to conceptualise the different impacts the matrix specify the following:

- **Stressor**: Indicates the aspect of the proposed activity, which initiates and cause impacts on elements of the environment.
- **Receptor**: Highlights the recipient and most important components of the environment affected by the stressor.
- **Impacts**: Indicates the net result of the cause-effect between the stressor and receptor.
- **Mitigation**: Impacts need to be mitigated to minimise the effect on the environment.

MATRIX ANALYSIS

LISTED ACTIVITY (The Stressor)	ASPECTS OF THE DEVELOPMENT /ACTIVITY	POTENTIAL IMPACTS			SIGNIFICANCE AND MAGNITUDE OF POTENTIAL IMPACTS			MITIGATION OF POTENTIAL IMPACTS	SPECIALIST STUDIES / INFORMATION
		Receptors		Impact description	Minor	Major	Duration	Possible Mitigation	
CONSTRUCTION PHASE									
Listing Notice GNR 325, Activity 15: *"The clearance of an area of 20 hectares or more, of indigenous vegetation."*	<u>Site clearing and preparation</u> Areas earmarked for prospecting will need to be cleared, topsoil will be stockpiled separately.	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	• Loss or fragmentation of indigenous natural vegetation. • Loss of sensitive species. • Loss or fragmentation of habitats.		-	L	Yes	-
			Air	• Air pollution due to the increase of traffic of construction vehicles.	-		M	Yes	-
			Soil	• Soil degradation, including erosion. • Loss of topsoil. • Disturbance of soils and existing land use (soil compaction).		-	S	Yes	-
			Geology	• It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa.		-	S	Yes	-
			Existing services infrastructure	• Generation of waste that need to be accommodated at a licensed landfill site. • Generation of sewage that need to be accommodated by the local sewage plant.		-	S	Yes	-
			Ground water	• Pollution due to construction vehicles.	-		S	Yes	-
			Surface water	• Increase in storm water run-off. • Pollution of water sources due to soil erosion. • Destruction of watercourses (pans/dams/streams).		-	S	Yes	-
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	• Job creation. • Business opportunities. • Skills development.		+	S	Yes	-
			Visual landscape	• Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility.	-		L	Yes	-
			Traffic volumes	• Increase in construction vehicles.	-		S	Yes	-
			Health & Safety	• Air/dust pollution. • Road safety. • Increased risk of veld fires.		-	S	Yes	-
			Noise levels	• The generation of noise as a result of construction vehicles, the use of machinery such as drills, excavators, rotary pans, dumper trucks and people working on the site.	-		L	Yes	-

			Tourism industry	• Since there are no tourism facilities in close proximity to the site, the construction activities will not have an impact on tourism in the area.	N/A	N/A	N/A	Yes	-
			Heritage resources	• Removal or destruction of archaeological and/or paleontological sites. • Removal or destruction of buildings, structures, places and equipment of cultural significance. • Removal or destruction of graves, cemeteries and burial grounds.	-		S	Yes	-
Listing Notice GNR 325, Activity 19: "The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— **Listing Notice GNR 325, Activity 20**: "Any activity including the operation of that activity which requires a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including—	<u>Site clearing and preparation</u> Areas earmarked for prospecting will need to be cleared, topsoil will be stockpiled separately. This will inevitably result in the removal of indigenous vegetation located on the site.	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	• Loss or fragmentation of indigenous natural vegetation. • Loss of sensitive species. • Loss or fragmentation of habitats.		-	L	Yes	-
			Air quality	• Air pollution due to the increase of traffic.	-		M	Yes	-
			Soil	• Soil degradation, including erosion. • Disturbance of soils and existing land use (soil compaction). • Loss of agricultural potential (low significance relative to agricultural potential of the site).		-	M	Yes	-
			Geology	• It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa.	N/A	N/A	N/A	N/A	-
			Existing services infrastructure	• Generation of waste that need to be accommodated at a licensed landfill site. • Generation of sewage that need to be accommodated by the local sewage plant.	-		M	Yes	-
			Ground water	• Pollution due to construction vehicles.			S	Yes	-
			Surface water	• Increase in storm water run-off. • Pollution of water sources due to soil erosion. • Destruction of watercourses (pans/dams/streams).	-		M	Yes	-
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	• Job creation. • Skills development.		+	S	N/A	-
			Visual landscape	• Since there are no tourism facilities in close proximity to the site, the construction activities will not have an impact on tourism in the area.	-		M	Yes	-
			Traffic volumes	• Increase in construction vehicles.	-		S	Yes	-
			Health & Safety	• Air/dust pollution. • Road safety.	-		S	Yes	-

			Noise levels	• The generation of noise as a result of construction vehicles, and people working on the site.	-		M	Yes	-
			Tourism industry	• Since there are no tourism facilities in close proximity to the site, the construction activities will not have an impact on tourism in the area.	N/A	N/A	N/A	N/A	-
			Heritage resources	• Removal or destruction of archaeological and/or paleontological sites. • Removal or destruction of buildings, structures, places and equipment of cultural significance. • Removal or destruction of graves, cemeteries and burial grounds.	N/A	N/A	N/A	N/A	-
OPERATIONAL PHASE									
Listing Notice GNR 325, Activity 19: "The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource [,]; or (b) [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.	The key components of the proposed project are described below: • <u>Supporting Infrastructure</u> - A control facility with basic services such as water and electricity will be constructed on the site and will have an approximate footprint 50m² or less. Other supporting infrastructure includes a site office and workshop area. • <u>Roads</u> – Access will be obtained from gravel road • <u>Fencing</u> - For health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm.	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	• Fragmentation of habitats. • Establishment and spread of declared weeds and alien invader plants (operations).		-	L	Yes	-
			Air quality	• Air pollution due to the mining activity, crusher plant and transport of the gravel to the designated areas.	-		S	Yes	-
			Soil	• Soil degradation, including erosion. • Disturbance of soils and existing land use (soil compaction). • Loss of agricultural potential (low significance relative to agricultural potential of the site).		-	L	Yes	-
			Geology	• Collapsible soil. • Seepage (shallow water table). • Active soil (high soil heave). • Erodible soil. • The presence of undermined ground. • Instability due to soluble rock. • Steep slopes or areas of unstable natural slopes. • Areas subject to seismic activity. • Areas subject to flooding.		-	L	Yes	-
			Existing services infrastructure	• Generation of waste that need to be accommodated at a licensed landfill site. • Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. • Increased consumption of water. Approximately 17 000 L/hour		-	L	Yes	-
			Ground water	• Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies.		-	L	Yes	-

			Surface water	• Increase in storm water runoff. The development will potentially result in an increase in storm water run-off that needs to be managed to prevent soil erosion. • Destruction of watercourses (pans/dams/streams). • Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies.	-		L	Yes	-
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	• Job creation. Security guards will be required for 24 hours every day of the week. • Skills development.		+	L	Yes	-
			Visual landscape	• The proposed portions are used for livestock grazing which will still take place simultaneously with the prospecting activity, however this depends on the location of the activity.		-	L	Yes	-
			Traffic volumes	• Increase in vehicles collecting gravel for distribution.	-		S	Yes	-
			Health & Safety	• Air/dust pollution. • Road safety.		-	S	Yes	-
			Noise levels	• The proposed development will result in noise pollution during the operational phase.	-	-	L	Yes	-
			Tourism industry	• Since there are no tourism facilities in close proximity to the site, the decommissioning activities will not have an impact on tourism in the area.	N/A	N/A	N/A	N/A	-
			Heritage resources	• It is not foreseen that the proposed activity will impact on heritage resources or vice versa .	N/A	N/A	N/A	N/A	-
DECOMMISSIONING PHASE									
-	<u>Mine closure</u> During the mine closure the Mine and its associated infrastructure will be dismantled. <u>Rehabilitation of biophysical environment</u> The biophysical environment will be rehabilitated.	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	• Re-vegetation of exposed soil surfaces to ensure no erosion in these areas.	+		L	Yes	-
			Air quality	• Air pollution due to the increase of traffic of construction vehicles.	-		S	Yes	-
			Soil	• Backfilling of all voids • Placing of topsoil on backfill	+		L	Yes	-
			Geology	• It is not foreseen that the decommissioning phase will impact on the geology of the site or vice versa.	N/A	N/A	N/A	N/A	-

		SOCIAL/ECONOMIC ENVIRONMENT	Existing services infrastructure	• Generation of waste that need to be accommodated at the local landfill site. • Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. • Increase in construction vehicles.	-		S	Yes	-
			Ground water	• Pollution due to construction vehicles.	-		S	Yes	-
			Surface water	• Increase in storm water run-off. • Pollution of water sources due to soil erosion. • Destruction of watercourses (pans/dams/streams).	-		S	Yes	-
			Local unemployment rate	• Loss of employment.		-	L	Yes	-
			Visual landscape	• Potential visual impact on visual receptors in close proximity to proposed facility.	-		S	Yes	-
			Traffic volumes	• Increase in construction vehicles.	-		S	Yes	-
			Health & Safety	• Air/dust pollution. • Road safety. • Increased crime levels. The presence of mine workers on the site may increase security risks associated with an increase in crime levels as a result of influx of people in the rural area.			L	Yes	-
			Noise levels	• The generation of noise as a result of construction vehicles, the use of machinery and people working on the site.	-		S	Yes	-
			Tourism industry	• Since there are no tourism facilities in close proximity to the site, the decommissioning activities will not have an impact on tourism in the area.	N/A	N/A	N/A	N/A	-
			Heritage resources	• It is not foreseen that the decommissioning phase will impact on any heritage resources.	N/A	N/A	N/A	N/A	-

(N/A) No impact (+) Positive Impact (-) Negative Impact (S) Short Term (M) Medium Term (L) Long Term

v. The positive and negative impacts that the proposed activity (in terms of the initial site layout) and alternatives will have on the environment and the community that may be affected.

(Provide a discussion in terms of advantages and disadvantages of the initial site layout compared to alternative layout options to accommodate concerns raised by affected parties)

- Increased ambient noise levels resulting from geophysic surveys site fly-overs and increased traffic movement during all prospecting phases.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on environmental resources utilized by communities, landowners and other stakeholders.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on ecosystem functioning.
- Increased vehicle activity with in the area resulting in the possible destruction and disturbance of fauna and flora.
- Poor access control to farms which may impact on cattle movement, breeding and grazing practices.
- Access control toportin which may impact on cattle movement, breeding and grazing practices of the surrounding community.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime.
- Potential visual impacts caused by prospecting activities.
- Prospecting will be undertaken by specialist sub - contractors and it is not anticipated that employment opportunities for local and / or regional communities will result from the prospecting activities.
- Negative impacts on the groundwater resources.
- Longterm loss of indigenous vegetation.

vi. The possible mitigation measures that could be applied and the level of risk.
(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

vii. The outcome of the site selection Matrix. Final Site Layout Plan
(Provide a final site layout plan as informed by the process of consultation with interested and affected parties)

Refer to superimposed map attached as **Appendix 5**.

viii. Motivation where no alternative sites were considered.

As discussed in the previous section, based on outcomes of previous studies in the vicinity of the proposed site, it is expected that high volumes of of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) combined with a Waste Licence Application near Griekwastad on the remaining

extent, portion 1 (Uitzicht) of the farm 392 and portion 1 (Tevrede) of the farm Windhoek 393, Registration Division: Hay; Northern Cape Province, were identified.

ix. Statement motivating the preferred site.
(Provide a statement motivation the final site layout that is proposed)

The site is preferred due to its possibility of having high volumes of Diamonds deposits.

(i) Plan of study for the Environmental Impact Assessment process

i. Description of alternatives to be considered including the option of not going ahead with the activity.

The option of not approving the activities will result in a significat loss of valuable information regarding the mineral status (in terms of Diamonds deposits present on these properties. In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilize these reserves for future phases will be lost.

ii. Description of the aspects to be assessed as part of the environmental impact assessment process

(The EAP must undertake to assess the aspects affected by each individual mining activity whether listed or not, including activities such as blasting, Loading, hauling and transport, and mining activities such as Excavations, stockpiles, discard dumps or dams, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.).

Table: Aspects to be assessed

Aspects / potential impacts	**Description of the aspect**	**Specialist studies / technical information**
Biophysical Environment		
Impacts on the fauna and flora	Refer to Matrix table	EAP assessment (using desktop studies, GIS, site visits and the book written by Mucina and Rutherford(The Vegetation of South Africa, Lesotho and Swaziland)
Impacts on the air quality	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on the soil	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts associated with the geology of the site	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)

Impacts on existing services infrastructure	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on ground and surface water	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Socio / Economic Environment		
Impacts on local employment rate	Refer to Matrix table	EAP assessment (using desktop studies, IDP's and SDF's)
Impacts on visual landscape	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on traffic volumes	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on health & safety	Refer to Matrix table	EAP assessment (desktop studies, site visits)

iii. Description of aspects to be assessed by specialists

If the authority feels that specialists' studies need to be conducted, such will be corresponded to the applicant.

iv. Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives

The environmental assessment aims to identify the various possible environmental impacts that could results from the proposed activity. Different impacts need to be evaluated in terms of its significance and in doing so highlight the most critical issues to be addressed.

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in the table below.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

v. The proposed method of assessing duration significance

Impact Rating System

Impact assessment must take account of the nature, scale and duration of impacts on the environment whether such impacts are positive or negative. Each impact is also assessed according to the project phases:

- planning

- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact the following criteria is used:

Table: The rating system

NATURE		
Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.		
GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be experienced.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.
3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
PROBABILITY		
This describes the chance of occurrence of an impact.		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
DURATION		
This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a

		span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 30 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite.
INTENSITY/ MAGNITUDE		
Describes the severity of an impact.		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/ component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
REVERSIBILITY		
This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.		

1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.
IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.
CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects.
2	Low cumulative impact	The impact would result in insignificant cumulative effects.
3	Medium cumulative impact	The impact would result in minor cumulative effects.
4	High cumulative impact	The impact would result in significant cumulative effects
SIGNIFICANCE		
Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The calculation of the significance of an impact uses the following formula: (Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.		

The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.		
Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative high impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

vi. The stages at which the competent authority will be consulted

Consultation with the competent and commenting authorities will continue throughout the duration of impact assessment phase. The authorities will also comment on whether they deem it necessary to conduct any specialist studies. On-going consultation will include:

- Submission of the Scoping following a 30 day public review period (and consideration of comments received).
- Submission of the EIR following a 30 day public review period (and consideration of comments received).
- Arrangements will be made to discuss the report with the Environmental Officer responsible for the project during the review period.
- An opportunity to visit and inspect the site.

vii. Particulars of the public participation process with regard to the Impact Assessment process that will be conducted

1. Steps to be taken to notify interested and affected parties.

(These steps must include the steps that will be taken to ensure consultation with the affected parties identified in (h) (ii) herein).

All registered I&APs and relevant State Departments will be given the opportunity to review the Scoping, EIR and EMP in accordance with Regulation R326. A minimum of 30 days commenting period will be allowed and all stakeholders and I&APs will be given an opportunity to forward their written comments within that period. All issues identified during this public review period will be documented and compiled into a Comments and Response Report to be included as part of the Final EIR to be submitted to the Northern Cape Department of Mineral Resources.

2. Details of the engagement process to be followed.

(Describe the process to be undertaken to consult interested and affected parties including public meetings and one on one consultation. NB the affected parties must be specifically consulted regardless of whether or not they attended public meetings and records of such consultation will be required in the EIA at a later stage).

The public participation process will be conducted strictly in accordance with Regulations 39-44. The following three categories of variables will take into account when deciding the required level of public participation:

- The scale of anticipated impacts.
- The sensitivity of the affected environment and the degree of controversy of the project.
- The characteristics of the potentially affected parties.

the following public participation mechanisms will be used:

- Newspaper advertisement in local newspaper
- Site notices
- Direct notification of surrounding land owners and occupiers
- Circulation of scoping report
- Circulation of EIR
- Public participation meeting
- Direct notification to all stakeholders of the Environmental Authorisation given

3. Description of the information to be provided to Interested and Affected Parties.

(Information to be provided must include the initial site plan and sufficient detail of the intended operation and the typical impacts of each activity, to enable them to assess what impact the activities will have on them or on the use of their land).

The letter provided to I&Aps comprises of a activity, extent and location description, including a locality map of the proposed activity and a Dropbox link to the full Scoping report and Appendices. It also indicates where a hard copy of the report can be viewed or if the need arises for a copy of the report a request can be sent to the relevant EAP who will forward a CD containing all the relevan information.

viii. Description of the tasks that will be undertaken during the environmental impact assessment process

<u>Tasks to be undertaken</u>

The following sections describe the tasks that will be undertaken as part of the EIA process.

- Project Description

  Further technical and supporting information will be gathered to provide a more detailed project description. This will include a detailed site layout plan that will be compiled once the low – medium areas of sensitivity have been indicated.

- **Location alternatives**

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity. It is expected that high volumes of Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) have been deposited on this farm and therefore the applicant would like to commence with their prospecting activities.

- **Activity alternatives**

The scoping process also needs to consider if the development of a Diamonds Alluvial (DA), Diamonds General (D), Diamonds (DIA) & Diamonds in Kimberlite (DK) mine would be the most appropriate land use for the particular site.

Mining of other commodities – Diamonds, but the right to this mineral is held by another entity.

- **Design and layout alternatives**

Design alternatives were considered throughout the planning and design phase (i.e. where is the diamond bearing gravel located?). In this regard discussions on the design were held between the EAP and the developer. The layout follows the limitations of the site and aspects such as, roads, site offices and workshop area as well as fencing– refer **Appendix 3**.

- **Operational alternatives**

Due to the nature of the prospecting activities, no permanent services in terms of water supply, electricity, or sewerage services are required.

The activities will commence with a site investigation and desktop studies, which will comprise of non-invasive techniques. This manner of survey will ensure that the applicant can clearly delineate areas which are suitable for further investigation and no unnecessary surface disturbance will be undertaken.

Based on the outcome of the desktop studies and site investigation, pits will be dug by an excavator for the purpouse of soil sampling. If gravel is found, the applicant wil determine the the composition and quality of the gravel.
The applicant will proceed with this way of prospecting by means of the open cast/trenching method, simultaneously or after pitting depending on the information obtained from the earlier work done. . Ore will be removed by excavators and will be loaded directly into dump trucks. Ore will be sent to be crushed and then to Diamond Alluvial (DA) screening plant.

The SGS geotechnical services will assess the sampled soils for mineralogical composition in order to determine its suitability for industrial use. The appointed geologist shall advise where the samples shall be taken.

- **No-go alternative**

This alternative considers the option of 'do nothing' and maintaining the status quo. The description provided in section H of this report could be considered the baseline conditions (status quo) to persist should the no-go alternative be preferred. The site is currently zoned for agricultural land uses. Should the proposed activity not proceed, the site will remain unchanged and will continue to be used for livestock (cattle) grazing and crop production.

- **Compilation of Environmental Impact Report**

An EIR will be compiled to meet the content requirements as per Appendix 3 of GNR326 of the EIA Regulations (4 December 2014) and will also include a draft Environmental Management Programme containing the aspects contemplated in Appendix 4 of GNR326.

(ix) Measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

ACTIVITY whether listed or not listed. **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)**.	**POTENTIAL IMPACT** **(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**MITIGATION TYPE** **(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g. Modify through alternative method. Control through noise control Control through management and monitoring through rehabilitation..**	**POTENTIAL FOR RESIDUAL RISK**
Impacts on the fauna and flora	Surface disturbance	Monitor through rehabilitation	High
Impacts on the air quality	dust	Dust Control	Low
Impacts on the soil	Erosion	Storm water control	Medium

Impacts associated with the geology of the site	Fly rock	Blasting controls	Low
Impacts on ground and surface water	Ground and surface water contamination	Storm water control, avoidance	medium
Impacts on visual landscape	dust	Dust control measures	low
Impacts on traffic volumes	dust	Dust control measures	low

J. AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP

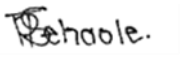
I, **Percy Sehaole (Pr. Sci. Nat)** (EAP) herewith confirms

A. the correctness of the information provided in the reports ☒

B. the inclusion of comments and inputs from stakeholders and I&APs; ☒

C. the inclusion of inputs and recommendations from the specialist reports where relevant; ☒and

D. the acceptability of the project in relation to the finding of the assessment and level of mitigation proposed; ☒



Signature of the environmental assessment practitioner:

Milnex CC – Environmental Consultants

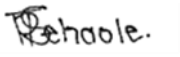
Name of company:

15– 01 – 2021

Date:

K. UNDERTAKING REGARDING LEVEL OF AGREEMENT

I **Percy Sehaole (Pr. Sci. Nat)** herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.



Signature of the EAP

DATE: 15– 01 – 2021

L. OTHER INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

i) Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the National Environmental Management Act (Act 107 of 1998). the EIA report must include the:-

(1) Impact on the socio-economic conditions of any directly affected person. (Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as **Appendix 2.19.1** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

The prospecting will not impact directly on any socio-economic aspects. Indirect socio-economic benefits are expected to be associated with the creation of employment in the Northern Cape Province.

2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act. **(**Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(*i*)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

Special attention will be given to the identification of possible cultural or heritage resources on site. In terms of the National Heritage Resource Act no 25 of 1999. Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA will be contacted immediately and work will stop.

m) Other matters required in terms of sections 24(4)(a) and (b) of the Act.

(the EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as **Appendix 4)**.

From a local perspective on the remaining extent, portion 1 (Uitzicht) of the farm 392 and portion 1 (Tevrede) of the farm Windhoek 393, Registration Division: Hay; Northern Cape Province is preferred due to the sites mineral resources. The specific site has been chosen for its mineral resources thus making an alternative site selection null and void. No prospecting should commence without the necessary permits and the impacts on the surrounding area, the livestock grazing and agricultural land should be kept to the minimum.

-END-