

BASIC ASSESSMENT REPORT & ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

2023

PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION BY LEBANO ASSETS (PTY) LTD
FOR COAL ON PORTIONS 2, 3, 4, 5 AND 7 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED
IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE

DMRE Ref: MP 30 / 5 / 1 / 1 / 2 / 18178 PR

PREPARED BY:

CONSULTANT'S DETAILS



Physical Address: Office No. 870,
5 Balalaika Street, Tasbet Park Ext 2, Witbank
1040.

Tel No.: +27 13 692 0041

Fax No.: +27 86 514 4103

Email: admin@singoconsulting.co.za/

Prepared for:



**mineral resources
& energy**

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

Physical Address: Department of Mineral
Resources & Energy, Saveways Crescent
Centre, First Floor, Mandela Drive, eMalahleni,
1035

PREPARED ON BEHALF OF:

LEBANO ASSETS (PTY) LTD

Physical Address: 35 Eagle Terrace,
Apple Street, Randpark Ridge, 2169

Contact person: Mr Mutavhatsindi
Livhuwani

Email: lebo@lebanomining.com



**mineral resources
& energy**

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

BASIC ASSESSMENT REPORT

and

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

SUBMITTED FOR ENVIRONMENTAL AUTHORIZATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED).

Details of the applicant:

NAME OF APPLICANT:	LEBANO ASSETS (PTY) LTD.
EMAIL ADDRESS:	lebo@lebanomining.com
PHYSICAL ADDRESS:	315 Eagle Terrace, Apple Street, Randpark Ridge, 2169

FILE REFERENCE NUMBER SAMRAD

MP 30/15/1/1/2/ 18178 PR

DOCUMENT CONTROL

Project Title:	Prospecting Right Application on portions 2, 3,4, 15 and 7 of the farm Reebokfontein 1514 IS
Mineral (s):	Coal
Compiled on behalf of:	Lebano Assets (Pty) Ltd
Public Participation Officer	Ms Innocent Monama
Compiled By:	Ms Bongokuhle Sibiya
EAP:	Mrs Rudzani Radebe
EAP Principal:	Dr Kenneth Singo
Version 2:	BAR & EMPR
Submission to:	Department of Mineral Resources and Energy (DMRE)
Date:	2023

IMPORTANT NOTICE

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 authorization for listed activities triggered by an application for a right or a 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 Authorization 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 BASIC ASSESSMENT PROCESS

The objective of the basic assessment process is to, through a consultative process-

- a) Determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;
- b) Identify the alternatives considered, including the activity, location, and technology alternatives;
- c) Describe the need and desirability of the proposed alternatives;
- d) Through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and the technology alternatives on these aspects to determine:
 - i. The nature, significance, consequence, extent, duration, and probability of the impacts occurring to; and ii. The degree to which these impacts-
 - a) Can be reversed;
 - b) May cause irreplaceable loss of resources; and
 - c) Can be managed, avoided or mitigated;
- e) Through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to –
 - I. Identify and motivate a preferred site, activity and technology alternative;
 - II. Identify suitable measures to manage, avoid or mitigate identified impacts; and iii. Identify residual risks that need to be managed and monitored.

Abbreviations

BAR	Basic Assessment Report
BID	Background Information Document
CBA	Critical Biodiversity Area
DWS	Department of Water and Sanitation
DMRE	Department of Mineral Resources and Energy
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ZFMDM	ZF Mgcawu District Municipality
GDP	Gross Domestic Product
I&APs	Interested And Affected parties
IDP	Integrated Development Plan
NDP	National Development Plan
PPP	Public Participation Process
PWP	Prospecting Works Programme
SAHRA	South African Heritage Resource Agency
SANAS	South African National Accreditation System
SANS	South African National Standards
WMA	Water Management Area

DISCLAIMER

The opinion expressed in this, and associated reports are based on the information provided by [Lebano Assets (Pty) Ltd] to Singo Consulting (Pty) Ltd ("Singo Consulting") and is specific to the scope of work agreed with Lebano Assets (Pty) Ltd .

Singo Consulting acts as an advisor to the Lebano Assets (Pty) Ltd and exercises all reasonable skill and care in the provision of its professional services in a manner consistent with the level of care and expertise exercised by members of the environmental profession. Except where expressly stated, Singo Consulting has not verified the validity, accuracy or comprehensiveness of any information supplied for its reports. Singo Consulting shall not be held liable for any errors or omissions in the information given or any consequential loss resulting from commercial decisions or acts arising from them.

Where site inspections, testing or fieldwork have taken place, the report is based on the information made available by the Lebano Assets (Pty) Ltd or their nominees during the visit, visual observations and any subsequent discussions with regulatory authorities. The validity and comprehensiveness of supplied information has not been independently verified and, for the purposes of this report, it is assumed that the information provided to Singo Consulting is both complete and accurate. It is further assumed that normal activities were being undertaken at the site on the day of the site visit(s), unless explicitly stated otherwise.

These views do not generally refer to circumstances and features that may occur after the date of this study, which were not previously known to Singo Consulting (Pty) Ltd or had the opportunity to assess.

TABLE OF CONTENTS

IMPORTANT NOTICE	4
OBJECTIVE OF THE BASIC ASSESSMENT PROCESS	5
SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT	5
a) Details of applicant	7
b) The EAP of who Prepared the Report.....	8
4.1 Locality map (show nearest town, scale not smaller than 1:460000).....	11
DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:	17
13.3 DESIGN OR LAYOUT.....	36
14.4 TECHNOLOGY ALTERNATIVES.....	36
13.15 OPERATIONAL ASPECTS	37
13.6 OPTION OF NOT IMPLEMENTING	37
IDENTIFICATION OF LANDOWNERS.....	39
Community	39
NOTIFICATION OF I&APS	41
VRYHEID FORMATION	60
GEOLOGICAL DATA FROM COUNCIL FOR GEOSCIENCE (CGS)	64
RESOURCE ESTIMATION.....	65
6.1.1. DESCRIPTION OF CURRENT LAND USES.....	83
DESCRIPTION OF SPECIFIC ENVIRONMENTAL FEATURES ANDINFRASTRUCTURE ON SITE.....	85
THE IMPACT ASSESSMENT METHODOLOGY	48
A. REASONS WHY THE ACTIVITY SHOULD BE AUTHORISED OR NOT.....	70
B. CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION	70
C. PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED.....	70
D. UNDERTAKING.....	70
E. FINANCIAL PROVISION	70
F. EXPLAIN HOW THE AFORESAID AMOUNT WAS DERIVED	71
G. CONFIRM THAT THIS AMOUNT CAN BE PROVIDED FOR FROM OPERATINGEXPENDITURE	71
SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY	72
10.2 IMPACT ON ANY NATIONAL ESTATE REFERRED TO IN SECTION 3(2) OF THENATIONAL HERITAGE RESOURCES ACT	72
10.3 OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT	72
ENVIRONMENTAL MANAGEMENT PROGRAMME.....	73
REHABILITATION PLAN	103
ENVIRONMENTAL MONITORING	113

LIST OF FIGURES

Figure 1: Locality Map of the proposed area, (Singo GIS, 2023)	11
Figure 2: Neighbouring farms	12
Figure 4: Regulation map showing Regulation Map of the proposed project area (Singo GIS, 2023)	13
Figure 3: Neighboring Farms maps, (Singo GIS, 2023)	13
Figure 5: Layout plan of the proposed project area (Singo GIS, 2023)	14
Figure 6: Drilling layout that will be utilized (Singo GIS, 2023)	17
Figure 7: Example of drilling equipment and site setting (Singo Consulting (Pty) Ltd, 2022)	18
Figure 8: Directional drilling and Geophysical down-hole survey	20
Figure 9: Typical example of borehole drilling (Singo GIS, 2023)	27
Figure 10: Newspaper advertisement of the proposed project	38
Figure 11: Proof of Community Meeting	39
Figure 12: Deed search results of the farm Reebokfontein 1514 IS.	40
Figure 13: Employment for those age 115-64 Average Household income (Stats SA, 2022)	58
Figure 14: South Africa's coalfields. (Singo GIS, 2023)	60
Figure 15: Geology of the Project area (Singo GIS, 2023)	61
Figure 16: A typical representation of coal seams in the Highveld Coalfield -Cairncross and Cadle (1988)	63
Figure 17: Neighbouring coal mines in relation to the locality of the project area (Singo GIS, 2023)	64
Figure 18: Average Monthly Rainfall	65
Figure 19: topography/ Topology of the proposed prospecting area. (Singo GIS, 2023)	66
Figure 20: Soil types observed on site (Singo Consulting, 2023)	67
Figure 21: The Vaal River which traverses the application area (Singo Consulting, 2023)	67
Figure 22: Hydrology of the proposed prospecting area (Singo GIS, 2023)	68
Figure 23: wetland observed on site. (Singo Consulting, 2023)	69
Figure 24: Hydrology map of the proposed prospecting area (Singo Consulting, 2023)	69
Figure 25: Plant species sensitivity (Singo GIS, 2023)	70
Figure 26: Agriculture Theme Sensitivity	71
Figure 27: Vegetation type of the proposed prospecting area (Singo Consulting, 2023)	72
Figure 28: Relative Terrestrial Biodiversity (Singo GIS, 2023)	73
Figure 29: Map of relative animal species (Singo GIS, 2023)	74
Figure 30: Map of Relative Paleontology Theme Sensitivity	77
Figure 31: Map of relative animal species them (Singo GIS, 2023)	77
Figure 32: Terrestrial Biodiversity map of the proposed project area (Singo GIS, 2023)	78
Figure 33: Terrestrial Biodiversity theme sensitivity map (Singo GIS, 2023)	79
Figure 34: Protected Area Online Registry (Singo Consulting, 2023)	80
Figure 35: Graves in portion 7 (Singo Consulting, 2023)	81
Figure 36: SAHRA online consultation (Singo Consulting, 2023)	82
Figure 37: Relative Archeological theme sensitivity (Singo GIS, 2023)	83
Figure 38: Current Land use map of the proposed prospecting area (Singo Consulting, 2023)	85
Figure 39: Proposed Boreholes (Singo GIS, 2023)	86

Figure 40: Final Map (Singo GIS, 2023)	66
Figure 41 Current land use map of the proposed prospecting area. (Singo GIS, 2023)	67
Figure 42: Proposed borehole map (Singo GIS, 2023)	67
Figure 43: Financial Provision (Singo Consulting, 2023)	71
Figure 44; Composite maps (Singo GIS, 2023)	74

LIST OF TABLES

Table 1: Locality details.....	9
Table 2: Farm portions and 21-digit SG codes.....	10
Table 3: Drilling method, depth, and number of boreholes to be drilled	18
Table 4: Borehole Geophysical Logging applications.....	20
Table 5: Timeframes for each of the proposed prospecting activities.....	22
Table 6: NEMA-Triggered Activities.....	26
Table 7: Summary of the drilling activities	27
Table 8: Policy and legislative context	28
Table 9: Status of Impact.....	48
Table 10: Extent of Impact.	49
Table 11: Duration of Impact.	49
Table 12: Probability of impact.....	50
Table 13: Intensity of Impact.....	51
Table 14: Impact Magnitude and Significance Rating.....	52
Table 15: Impact Assessment Summary.....	60
Table 16: Summary of specialist reports.	64
Table 17: Impacts to be mitigated.	71
Table 18: Rehabilitation measures.....	97
Table 19: Mechanism for monitoring	99
Table 20: Mechanisms for Monitoring Compliance.....	107

Appendices

Appendix 1: Project Maps.....	117
Appendix 2: I & APs comments/ Email	125
Appendix 3: Acceptance Letter	132
Appendix 4:: Site Assessment and Site Notice Plugging.....	133
Appendix 5: Stakeholder Engagements.....	134
Appendix 6: CV of the Principal EAP.	135
Appendix 7: Minutes of Community Meeting.....	136
Appendix 8: Attendance Register	139
Appendix 9: Comments sheets	140
Appendix 10: POS.....	144
Appendix 11 Pictures of the meeting.	153

PART A:
SCOPE OF ASSESSMENT AND BASIC ASSESSMENT REPORT

1. INTRODUCTION

Lebano Assets (Pty) Ltd (the Applicant) has submitted an application for a Prospecting Right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) and an Application for Environmental Authorization in terms of Chapter 6 of GNR 982 promulgated under the National Environmental Management Act (Act 107 of 1998) (NEMA) to prospect for Coal mineral.

The proposed project will aim to ascertain if economically viable mineral deposits exist within the application area. In order to undertake prospecting activities, Lebano Assets (Pty) Ltd will require a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act (MPRDA, Act No. 28 of 2002). The Applicant is also required to obtain an Environmental Authorisation (EA) in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998) which involves the submission of a Basic Assessment Report. (BAR). Singo Consulting (Pty) Ltd has been appointed by Lebano Assets (Pty) Ltd to compile the BAR (this report) in support of the Prospecting Right application submitted by Singo Consulting (Pty) Ltd on behalf of Lebano Assets (Pty) Ltd, which in turn will be submitted to the DMRE for adjudication.

This BAR has been designed to meet the requirements for a BAR and Environmental Management Programme report (EMPr) as stipulated in the 2014 EIA Regulations promulgated under the NEMA. The adjudicating authority for this Application will be the Department of Mineral Resources and Energy (DMRE), and this report has been compiled in accordance with the applicable DMRE guidelines and reporting template.

Locality Description: The proposed Prospecting Right Application covers Portions 2, 3, 4, 15 and 7 of the farm Reebokfontein 1514 IS, encircling a total of 1 1518.270 Ha. The proposed project area is situated under the jurisdiction of the Lekwa Local Municipality. The proposed project area is located approximately 13.7 km South of Morgenzon in Mpumalanga. The farms can be accessed via R315 from Standerton town that extends to unnamed gravel road.

A Prospecting Work Programme (PWP) has been developed by the applicant to include both non-invasive and invasive prospecting activities. The target geological formation of the PWP is the Vryheid formation of the Karoo Super Group. The project area is currently dominantly covered by natural vegetation, cultivated area, Plantation, Built-up Area and rivers. 100m buffer will be applied around the water bodies present within the prospecting right area. There are heritage resources identified on the site during site assessment, however, if other heritage resources are identified during any stage of prospecting, then SAHRA will be informed immediately.

Portions 2, 3, 4, 5, and 7 of the Reebokfontein 1514 IS farm, with DMRE Ref: MP 30/15/1/1/2/ 18178 PR, constitute the designated project area. The engagement with stakeholders followed a multi-pronged approach, encompassing the publication of a Middelburg newspaper notice on July 21, 2023, emails were sent on the 21st of July 2023 and face to face consultation on the 24th of July 2023. Notably, during the stakeholder engagement process, specific landowners (portion 5 and 7) were engaged in a ground-truthing exercise, expressing their support for the proposed project. Additionally, correspondence was sent through the consultant's office email. However, some stakeholders remain uncontactable, despite efforts to reach them. At this point, there has been no acknowledgment or response to these communications

from the landowners of portion 2, 3, 4 and 5.

A draft of the BAR (Basic Assessment Report) and EMPR (Environmental Management Programme Report) was made available for public review for a 30-day period, spanning from August 21, 2023, to September 19, 2023. The DBAR & EMPs were accessible at Standerton Library and the Lekwa Local Municipality, both situated in the Standerton Magisterial District of the Mpumalanga Province. Furthermore, the draft documents were circulated to all interested and affected parties via email and post-Net. All comments received during this review period have been incorporated into the final BAR and EMP, which will be submitted to the DMRE for adjudication. Follow-up and closure emails were sent on September 15, 2023, and we are currently still awaiting responses from some stakeholders.

Singo Consulting (Pty) Ltd was appointed by the Applicant as an Environmental Assessment Practitioner (EAP) to compile this report. The contact details of the consultant who compiled the report and those of the EAP who reviewed it are as follows:

2. CONTACT PERSON AND CORRESPONDENCE ADDRESS

a) Details of applicant

APPLICANT CONTACT DETAILS

NAME OF APPLICANT	: Lebano Assets (Pty) Ltd
Contact Person	: Mr Mutavhatsindi Livhuwani
Email	lebo@lebanomining.com
Physical Address	: 315 Eagle Terrace, Apple Street, Randpark Ridge, 2169
DMRE Reference No.	: DMRE Ref: MP 30/15/1/1/2/ 18178 PR

b) The EAP of who Prepared the Report

EAP CONTACT DETAILS

Environmental assessment practitioner	Singo Consulting (Pty) Ltd
Contact person(s)	<p>Ms. Innocent Monama (PPP Officer)</p> <p>Ms Bongokuhle Sibiya (Cand EAP) 1st Reviewer</p> <p>Mrs. Rudzani Radebe (Programme Manager) 2nd Reviewer</p> <p>Dr. Kenneth Singo (EAP Principal) 3rd Reviewer</p>
Physical address	15 Balalaika, Tasbet Ext 2, Witbank, 1040
Postal address	Private Bag X7214, Postnet Suite 126, Witbank, 10315
Contact number(s)	<p>Innocent Monama: 067 826 4182</p> <p>Bongokuhle Sibiya: 061 868 7545</p> <p>Rudzani Radebe: 078 1548 1244</p> <p>Kenneth Singo: 078 272 7839 / 072 081 6682</p>
Telephone number	013 692 0041
Fax	086 15144 103
Email(s)	<p>Bongokuhle Sibiya: bongokuhle@singoconsulting.co.za</p> <p>Rudzani Radebe: rudzani@singoconsulting.co.za</p> <p>Kenneth Singo: kenneth@singoconsulting.co.za</p>

3. EXPERTISE OF THE EAP

See attached CV annexure B

4. LOCATION OF THE OVERALL ACTIVITY

Table 1: Locality details

Farm Name (s)	Reebokfontein 1514 IS			
Farm Portions	portions 2, 3, 4, 15 and 7			
Application Area (Ha)	Approximately 1 1518.270 Hectares.			
Magisterial District	Standerton			
Distance and direction from nearest town	Approximately 13.7 km South of Morgenzon in Mpumalanga			
Type of mineral(s)	Coal			
Locality (Direction and distance from nearest town)	Town	Distance	Direction	
	Morgenzon	16.153 km	Southeast	
	Bromfield	17.153km	East	
Extent of the area required for prospecting	1 1518.270 Ha			
Geological formation	Karoo Supergroup (Ecca Group)			
21-digit Surveyor General Code for each Portion	Please refer to Table 3 below.			

Table 2: Farm portions and 21-digit SG codes

Farm Portions	Title Deed No.	21 Digit SG Code
2	T141915/2022	TOIS0000000000151400002
3	T3374/2016	TOIS0000000000151400003
4	T3374/2016	TOIS0000000000151400004
15	T1301564/2000	TOIS00000000001514000015
7	T15430/1976	TOIS0000000000151400007

4.1 Locality map (show nearest town, scale not smaller than 1:460000)

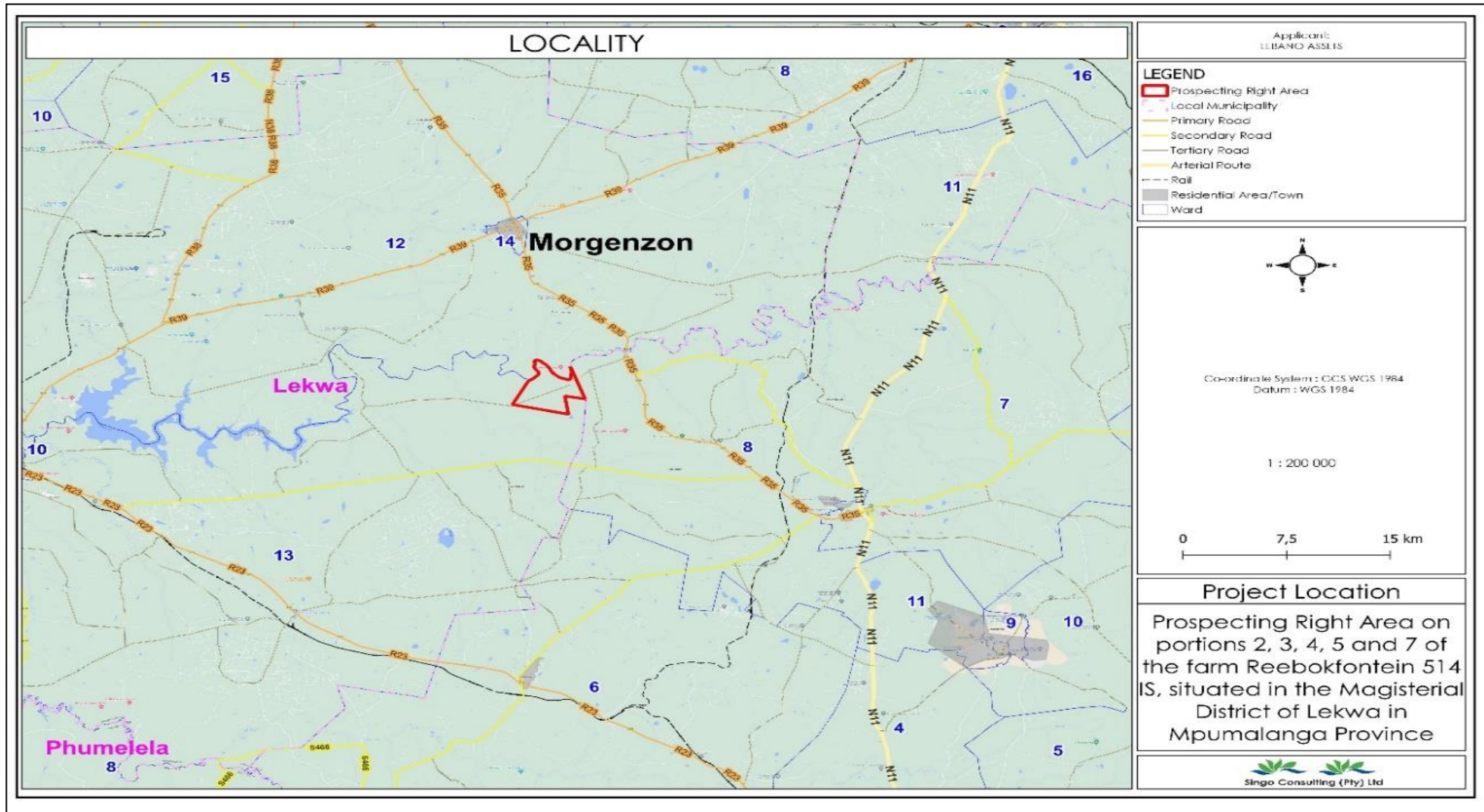


Figure 1: Locality Map of the proposed area, (Singo GIS, 2023)

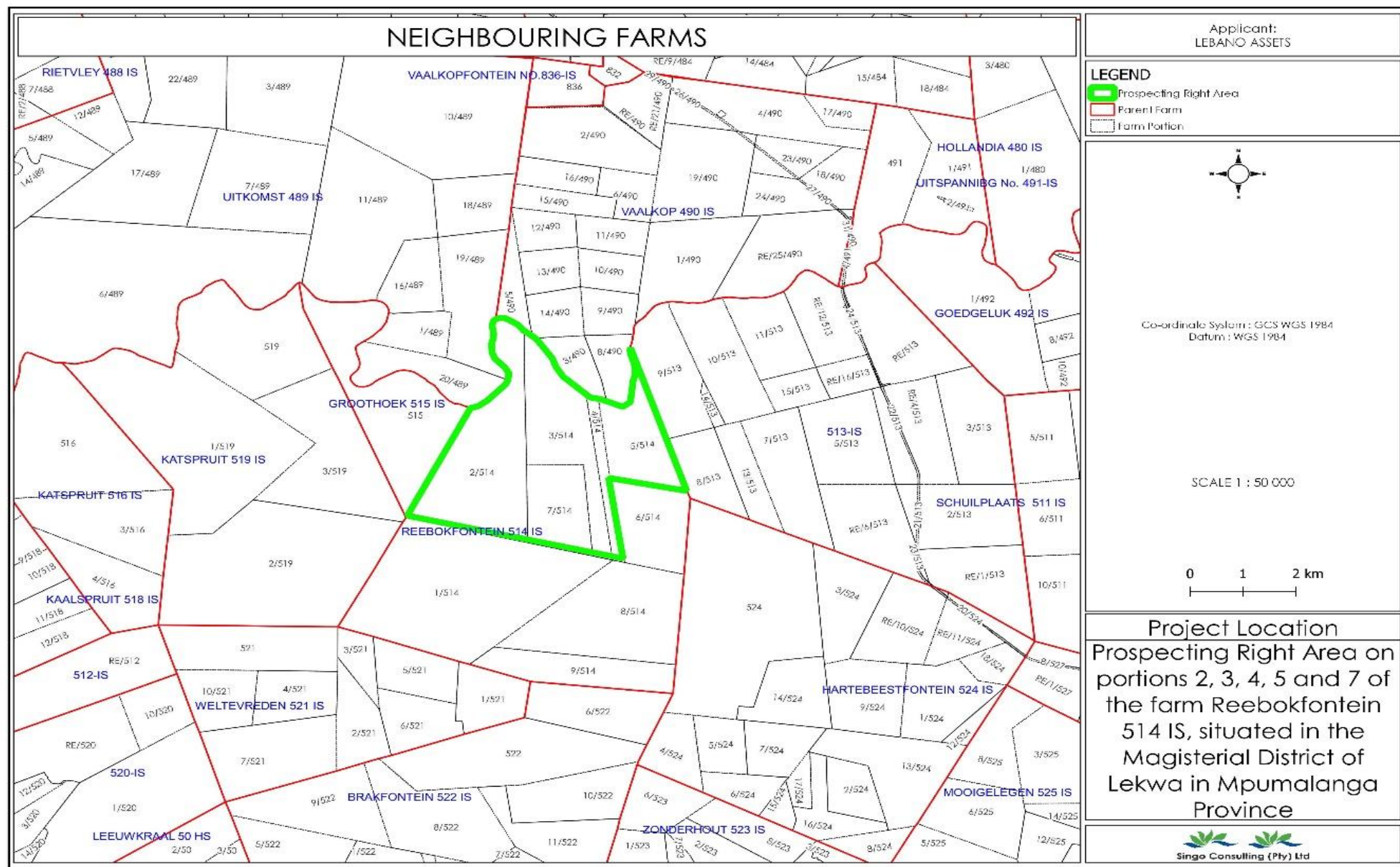


Figure 2; Neighbouring farms

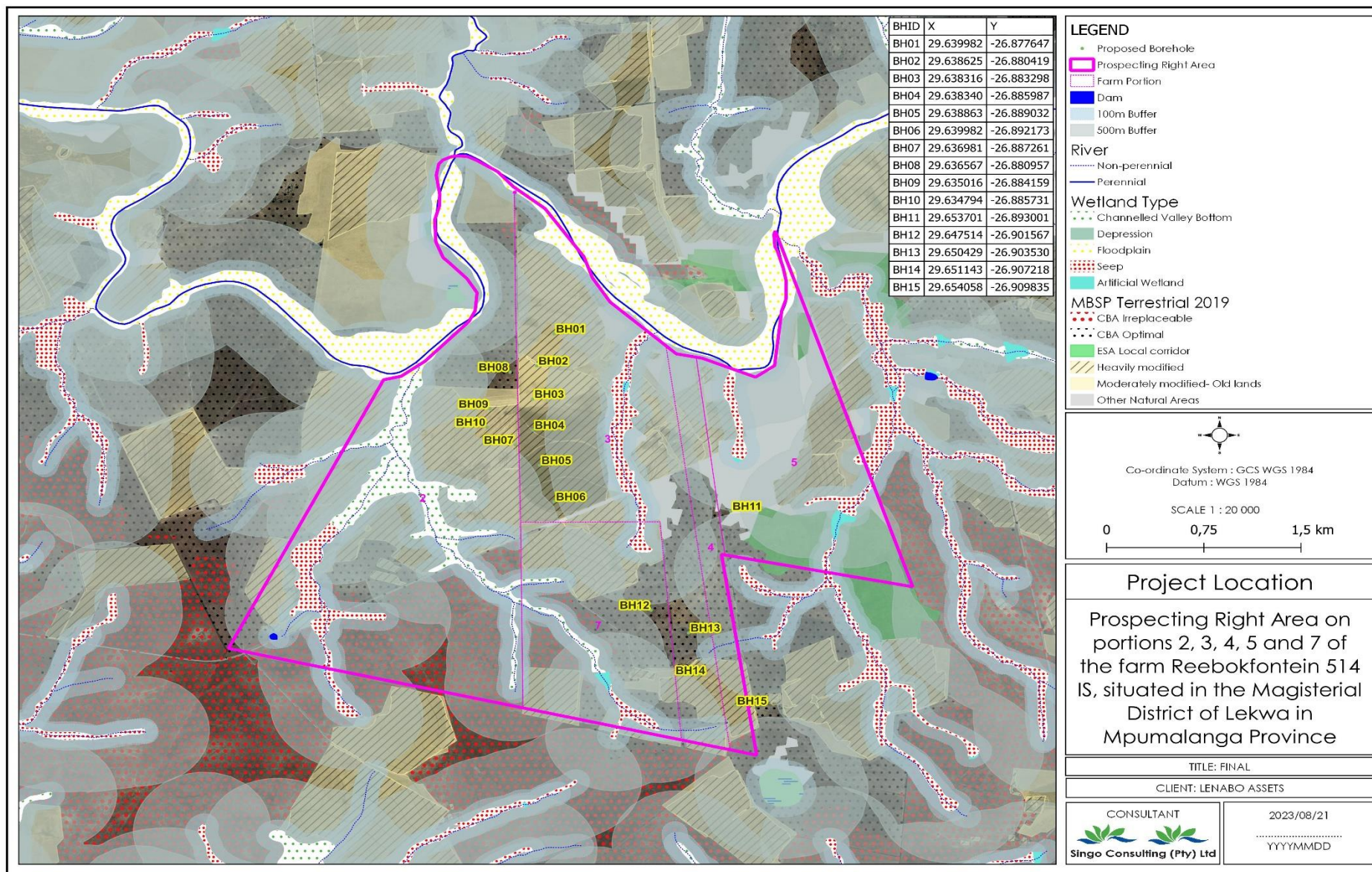


Figure 5: Layout plan of the proposed project area (Singo GIS, 2023)

5. DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY

As part of the prospecting phase, physical prospecting is planned to be conducted on site and will involve the use of diamond core drilling to investigate the existence of the expected mineralization, the thickness of the orebodies and its distribution. Core logs will be taken off-site to be sampled and analysed. An estimated 15 boreholes will be drilled one at a time at various locations within the proposed project area. The depths of the drill holes will average 200 m and will be determined onsite whilst the drilling programme is underway as influenced by the depths and dips measured in other holes. A buffer of 1500 m will be kept from identified wetlands. A buffer of 100 meters will be kept from public roads.

The drill site will be fenced off, cleared and drilled. Rehabilitation will occur immediately after drilling. As a site is drilled, it will be rehabilitated, and the drilling crew will move onto the next planned hole. This procedure will be followed until all the holes are drilled. Drilling will be conducted in consultation with the landowners.

Bulk sampling, Excavation, Trenching and Pitting – None of the listed will be conducted during the prospecting phase. Figure 4 above depicts the proposed prospecting area and the proposed borehole sites of interest within the application area. Vegetation will be cleared at the borehole locations; the area is expected to be approximately 0.9 ha per borehole. There will be fifteen (15) boreholes situated in the proposed prospecting right areas. Minor access tracks will be created to access the proposed borehole sites where there are no existing roads, the total length of the access routes is anticipated to be 200 m and the approximate width is 3m.

At the end of each phase there will be a brief period of compiling and evaluating results. The results will not only determine whether prospecting proceeds, but also the manner in which it will go forward. The applicant will only action the next phase of prospecting, once satisfied with the results obtained in the previous phases. In addition, smaller, non-core parts of the prospecting work program will be undertaken, if warranted. A description of the planned invasive and non-invasive activities is detailed below.

6. DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES

Non – invasive activities which relate to the various prospecting methods can be briefly described as follows:

Consultation with landowners:

Land Tenure Specialist will visit the respective landowners prior to the proposed prospecting and arrange all issues relating to the envisaged prospecting programme such as dates, access routes, availability of water, and rehabilitation of the drill sites and any other items of mutual concern. Official permission together with all agreed requirements will be in writing.

Data processing and validation:

Data obtained during the drilling process needs to be processed and validated versus stratigraphic,

structural and analytical data received and correlated with surrounding boreholes in the reserve area.

- ❖ Electronic procession of borehole data
- ❖ Validation of lithological data versus analytical data.
- ❖ Stratigraphic correlation of Coal.
- ❖ Editing and correction of data on database.

Lithofacies and Coal quality modelling:

Variations in a stratigraphic unit across the reserve area are generated and illustrated by contoured maps showing lateral trends of most significant properties. This is done by the utilization of computerized geological software. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations.

Compilation of geology report:

Information obtained during the exploration phase together with computer generated information is compiled into a geological report.

Inspection/Consultation with landowner:

Land Tenure Specialist will visit the boreholes during and after prospecting has been completed. Once confirmation has been obtained that the area had been properly rehabilitated, sign off will be obtained from the landowners and compensation paid for any damages caused as a result of the prospecting.

DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

The drilling activity will use the layout below to execute the recovery of Coal.

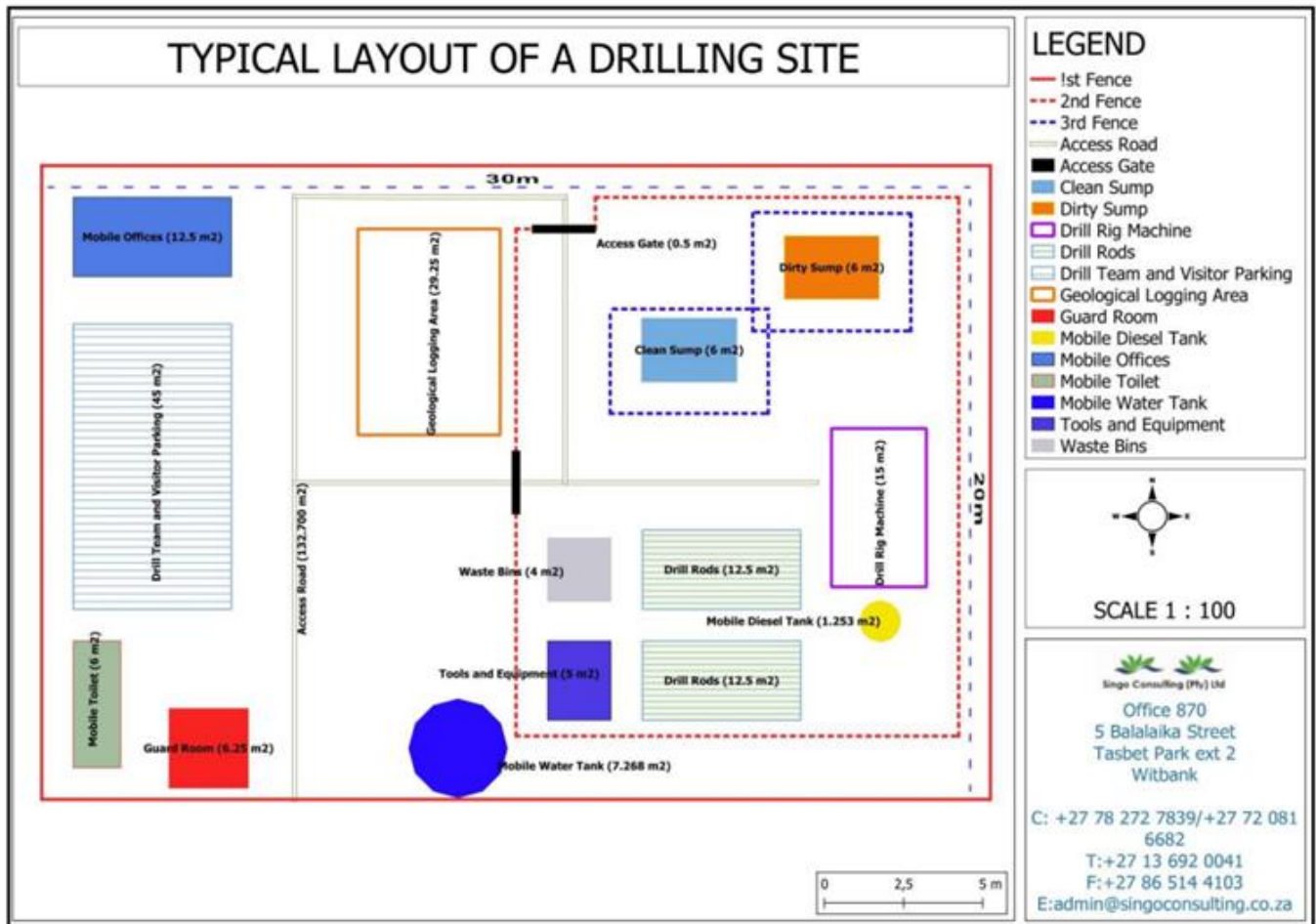


Figure 6: Drilling layout that will be utilized (Singo GIS, 2023)

I. Diamond Drilling: Core Diamond Drilling Method

The drill rigs are truck-mounted and equipped with diesel driven engines to provide power to the drill. A truck fitted with a water tank is used to provide the water supply for the drilling process. The drill site is not larger than 30m x 20m (600m²) and consists of a drill rig, water pump, caravan and portable chemical toilet.



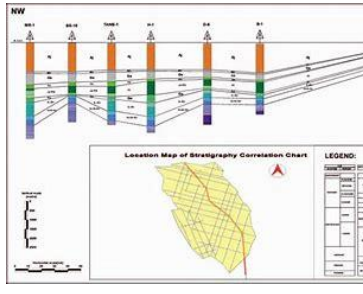


Figure 7: Example of drilling equipment and site setting (Singo Consulting (Pty) Ltd, 2022)

Except for the sump required by the drill rig, no excavations will be required. The sumps are normally 1 m² and 150 cm (0.15 m) deep. It is always necessary to separate topsoil from the subsoils. This will be given in details on the EMPR. The dimension of the borehole is NQ (± 76 mm), and the average depth of Coal is estimated to be 110 m. On completion of the borehole, it is cemented from the bottom up. The only rehabilitation that will specifically be required is borehole capping and revegetation: Drill holes must be permanently capped as soon as is practicable.

Table 3: Drilling method, depth, and number of boreholes to be drilled

Drilling Method	Depth	No. of Boreholes
Core Diamond Drilling	>110m	15

		
Percussion drilling	N/A	N/A

Percussion drilling:

The drill site is not larger than 30m x 20m (600m²) and consists of a diesel-powered truck mounted drill rig, a truck transporting drill rods and other equipment, a compressor and portable chemical toilet. Rock fragments are blown out the top of the hole and are collected at 1m depth intervals and arranged on the ground to enable continuous detailed lithological descriptions of the stratigraphic horizons to be made. Percussion holes will either be cemented if not further utilized or will be fitted with a cap and be used for water levels and water quality monitoring.

Directional drilling:

The drill site is not larger than 120m x 120m (14400m²) and consists of a sump, a diesel-powered drill rig, a truck transporting drill rods and other equipment, a compressor, portable offices and chemical toilet. Rock fragments are blown out the top of the hole and are sampled at 10m depth intervals and collected on small bottles and sent to the laboratory for Coal analysis. All percussion holes are sealed with cement up to the depth of start of Coal.

Geophysical down-hole surveys

The down-hole geophysical survey is done at the borehole site after the hole has been completed. A range of specialized geophysical tools are lowered into the open borehole and a range of physical lithological characteristics of Coal are gathered and sent digitally along the cable to a computer on surface. This data is used to produce several profiles reflecting strength of Coal qualities and

structural features for the total length of the borehole. A single truck is used which contains all



equipment including a mobile generator.

Figure 8: Directional drilling and Geophysical down-hole survey

Geophysics is a subject of natural science concerned with the physical processes and physical properties of the Earth and its surrounding space environment, and the use of quantitative methods for their analysis. The term geophysics sometimes refers only to the geological applications: see below are examples where is applied.

Table 4: Borehole Geophysical Logging applications

LOG	PARAMETERS MEASURED	APPLICATIONS
CALIPER	Borehole or casing diameter.	Fracture identification, lithologic changes, and well construction.
NATURAL GAMMA	Natural gamma radioactivity.	Lithology and estimation of clay content in overburden.
FLUID TEMPERATURE	Temperature of borehole fluid.	Indicates geothermal gradient, and water flow in borehole or between borehole and fractures.
FLUID RESISTIVITY	Resistivity of borehole fluid.	Indicates water flow within borehole, or between borehole and fractures; and water quality.
SINGLE POINT RESISTANCE	Resistance of materials between probe and ground surface electrode.	Lithology, fracture identification, and location of well screens.
NORMAL RESISTIVITY	Apparent resistivity of material.	Lithology, and water quality.

SPONTANEOUS POTENTIAL (SELF POTENTIAL or SP)	Electrical potentials between probe and surface electrodes.	Lithology, water quality, and in some cases, fractures in resistive crystalline rock.
EM CONDUCTIVITY (INDUCTION)	Electrical conductivity in medium surrounding borehole.	Location of contaminant plumes, conductive clay units, or bedrock fractures. Monitor water quality changes over time.
FLOWMETER: IMPELLER or HEAT-PULSE	Continuous or point measurements of water flow in borehole.	Identification of permeable zones and apparent vertical hydraulic conductivity and flow direction.
BOREHOLE VIDEO	Provides visual record of lithology, fractures, well construction.	Lithologic logging; identification of fractures; examination of casing or well construction.

Geohydrological survey

Percussion (open hole) boreholes may be drilled to gather geohydrological information with specific reference to aquifer yield testing and gathering of water samples for analytical purposes.

Baseline preliminary conceptual groundwater flow model to estimate inflow rates into a probable underground mining operation using hydraulic aquifer parameters obtained during aquifer yield-testing. A single truck is used which contains all equipment including a mobile generator.

7. DESCRIPTION OF PRE/FEASIBILITY STUDIES

The Coal seams thickness distribution, lateral extent and quality will be determined through detailed borehole measurement and laboratory core analysis. Detailed in situ reserve and quality determinations will then be possible through computer based modelling, and qualitative and quantitative calculations. A geological report (or Competent Person Report) will be compiled which entails all results obtained during the exploration phase. This will be done by Exploration Geologist, see attached CV for the company that will be responsible for exploration activities.

Commitment to provide addendums in respect of additional prospecting activities.

I here with commit to provide the Department of Mineral Resources with an addendum in respect of both the EM Plan and Prospecting Work Programme regarding any future in-fill prospecting required, but not described above, prior to undertaking such activities. The addendum will cover all the Regulations as per the Prospecting Work Programme. I agree that the addendums will provide for similar activities only and if the scope changes, I would be required to apply in terms of Section 102 of the MPRDA for an amendment of the Prospecting Work Programme.

ACCEPT Mark with X	X
--------------------	---

Table 5: Timeframes for each of the proposed prospecting activities.

Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?
Phase1: Invasive Prospecting						
	Diamond drilling (15 boreholes)	Exploration Geologist	Month 1 (30 days)	Borehole core data, Coal samples Rock core samples	Month 1	Exploration Geologist
	Sampling	Exploration Geologist		Core analyses Rock core analyses	Month 2 – 3	Laboratory analyst
Phase 1: Non-invasive Prospecting						
	Consultations with landowners	Land Tenure Specialist	Month 1	Legal Access Agreement	Month 1	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 7-8	Stratigraphic correct borehole data Analytical correct borehole data	Month 8 – 10 Month 8 - 10	Exploration Geologist /Database administrator Exploration Geologist /Database administrator

	Lithofacies and Coal quality modelling	Exploration Geologist	Month 10-12	Contour maps Reserve breakdown	Month 10-12	Exploration Geologist /Modeller
	Inspection/Consultation with landowners	Land Tenure Specialist /Drilling contractor	Month 15-6	Rehabilitation clearance certificate	Month 15 - 6	Land Tenure Specialist / Environmental officer
Phase 2: Invasive Prospecting						
	Diamond drilling (15 borehole)	Exploration Geologist	Month 13	Borehole core data Coal core samples Rock core samples Core analyses Rock core analyses	Month 13 Month 13-14	Exploration Geologist Laboratory analyst
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 13-115	Lithology data Structural data	Month 13-14	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 13-14	Borehole water yield Water samples	Month 17-20	Geohydrologist
Phase 2: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 12	Legal Access Agreement	Month 12	Land Tenure Specialist
Phase	Activity	Skill(s) required	Timeframe	Outcome	Timeframe for outcome	What technical expert will sign off on the outcome?

	Data processing and validation	Exploration Geologist	Month 17-18	Stratigraphic correct borehole data Analytical correct borehole data	Month 20 – 22 Month 20 - 22	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal quality modelling	Exploration Geologist	Month 22-24	Contour maps Reserve breakdown	Month 22-24	Exploration Geologist /Modeler
	Inspection/Consultation with landowners	Mining Rights officer	Month 16-17	Rehabilitation clearance certificate	Month 16 - 17	Land Tenure Specialist / Environmental officer
Phase 3: Invasive Prospecting						
	Diamond drilling (15 borehole)	Exploration Geologist	Month 215	Borehole core data coal core samples Rock core samples Coal core analyses	Month 215 Month 215-36	Exploration Geologist Laboratory analyst
	Directional drilling (Optional)	Exploration Geologist	Month 24-30	Lithological data	Month 24-36	Exploration Geologist
	Geophysical survey (Optional)	Geophysicist Exploration Geologist	Month 215-27	Lithology data Structural data	Month 215-36	Geophysicist
	Geohydrological survey (Optional)	Geohydrologist Exploration Geologist	Month 215-26	Borehole water yield Water samples	Month 29-36	Geohydrologist

Phase 3: Non-invasive Prospecting						
	Consultation with landowners	Mining Rights officer	Month 24	Legal agreement	Month 24	Land Tenure Specialist
	Data processing and validation	Exploration Geologist	Month 29-30	Stratigraphic correct borehole data Analytical correct borehole data	Month 32 – 36 Month 32 - 36	Exploration Geologist /Database administrator Exploration Geologist /Database administrator
	Lithofacies and Coal	Exploration Geologist	Month 34-36	Contour maps Reserve breakdown	Month 34-36	Exploration Geologist /Modeler
	Inspection/consultation with landowners	Land Tenure Specialist	Month 28-29	Rehabilitation clearance certificate	Month 28 - 36	Land Tenure Specialist / Environmental officer

8. LISTED AND SPECIFIED ACTIVITIES

Section 16 of the Mineral and Petroleum Resources Development Act (MPRDA) (No. 28 of 2002) requires, upon request by the Minister, that an Environmental Management Programme should be submitted, and that the applicant notifies and consults with Interested and Affected Parties (I&APs). Section 24 of the National Environmental Management Act (NEMA) requires that activities which may impact the environment be authorized by the relevant authority before commencing with that activity. Such activities are listed under Regulations Listing Notice 1 Government Notice (GN) 327 of the NEMA. See Table 2 for details of the listed activities.

Table 6: NEMA-Triggered Activities

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, plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY (Mark with an X where applicable or affected).	APPLICABLE LISTING NOTICE GNR 517, June 2021	WASTE MANAGEMENT AUTHORISATION (Indicate whether an authorisation is required in terms of the Waste Management Act). (Mark with an X)
Prospecting Area	1 1518,270 ha	X	GNR 327 Listing Notice 1, Activity 20.	Not required
Vegetation clearing	600m ² * 15 = 9000m ² = 0.9ha			
Drilling	0.9 ha			
Site Camp	600m ²			
Temporary road creation	0,182 Ha/ 1820m ²	X	GNR 327, Listing Notice 1 Activity 56	

$$30 \times 20 = 600 \text{ m}^2$$

$$15 \text{ boreholes} \times 600 \text{ m}^2 = 9000 \text{ m}^2$$

$$\text{Total area to be disturbed is } 9\,000 \text{ m}^2 \div 10\,000 = 0.9 \text{ ha}$$

Table 7: Summary of the drilling activities

Drilling method	Diamond drilling
Number of boreholes	15
Depth of boreholes	100m
Duration of drilling	A borehole takes about 2 days to complete; 15 will take at least 30 days.
Demarcated working area	0.9 ha for all 15 drilling sites
Total area to be disturbed	$30 \times 20 = 600 \text{ m}^2$ $15 \text{ boreholes} \times 600 \text{ m}^2 = 9000 \text{ m}^2$ $9000 \text{ m}^2 \div 10000 = 0.9 \text{ ha}$



Figure 9: Typical example of borehole drilling (Singo GIS, 2023)

9. LEGAL FRAMEWORK

The following context includes the legislations that are associated with prospecting processes.

Table 8: Policy and legislative context

Applicable legislation and guidelines used to compile the report	Reference where applied	How does this development comply with and respond to the policy and legislative context
A description of the policy and legislative context within which the development is proposed, including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.		E.g., In terms of the National Water Act a Water Use License has/ has not been applied for.
Legislation		
NEMA, No. 107 of 1998 (as amended) Listing Activity 20 of Listing Notice 1 in terms of Regulation 983 of 2014	Prospecting activities	In terms of the NEMA, No. 107 of 1998 (as amended), an application for Environmental Authorization was submitted to the DMRE and we are currently waiting for the acceptance letter with DMRE Ref: (MP 30/15/1/1/2/ 18178 PR) . The DMRE, as the administrator, requests the submission of the Basic Assessment Report and EMP within 90 days of the acceptance letter. Lebano Assets (Pty) Ltd appointed Singo Consulting as an independent EAP to undertake the Basic Assessment Process associated with the Prospecting Right Application. All potential impacts of the proposed prospecting activities have been assessed. The EMP includes mitigation measure implementation, which will apply throughout prospecting activities.
As per the Constitution of South Africa, specifically, everyone has a right to: an environment that is not	Prospecting activities	An EMP for proposed prospecting activities has been drafted to ensure that prospecting activities are conducted in such a manner that significant environmental impacts are avoided. Where significant impacts cannot be avoided, they will be

harmful to their health or wellbeing; and have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that: prevent pollution and ecological degradation promote conservation secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.		minimized and mitigated to protect the environmental right of South Africans.
MPRDA, No. 28 of 2002 Section 16 (as amended)	Prospecting activities	The applicant submitted a Prospecting Right Application to the DMRE, and we are currently waiting for acceptance letter. DMRE Ref: (MP 30/15/1/1/2/ 18178 PR) The conditions and requirements attached to the granting of the prospecting right will apply to the prospecting activities.
NEMA Biodiversity Act, 2004		The EMPr will regulate the applicant's implementation of biodiversity management measures. This is particularly relevant to all species of the Highveld Grassland family and the project area falls under unclassified.
National Water Act (NWA), Act 36 of 1998	N/A	No water use license is required for this application. Water required for drilling activities will be obtained from a legal source in the area or brought in via a mobile water tanker. Appropriate dust extraction/suppression equipment will be a condition imposed on the drill contractor for drill rigs.
National Environmental Management: Waste Act, Act 159 of 2008 (NEMWA) (as amended)	Management measures environmental awareness plan	Waste generation will be minimized by ensuring employees of the drilling contractor are subjected to the appropriate environmental awareness campaign before drilling commences. All waste generated during the drilling activities will be

		disposed of in a responsible legal manner. Proof of legal disposal will be maintained on site.
National Heritage Resources Act (NHRA), 215 of 1999	Management measures	Should archaeological artefacts or skeletal material be discovered in the area during development activities, activities will be stopped, and the South African Heritage Resource Agency (SAHRA) will be notified for an investigation and evaluation of the discoveries.
Municipal plans and policies		
Local Municipality Integrated Development Plan (IDP) 2022-2023	N/A	The prospecting and mining of key minerals like Coal is highlighted in the IDP. It also highlights the need to preserve the natural environment in the area by conducting mineral exploration that is minimally invasive to the environment.
Municipality 2014-2034 Spatial Development Framework (SDF)		The applicant acknowledges the need to maximize economic benefit from mining, industrial, business, agricultural and tourism development in the area and promote a climate for economic development in line with the municipal development frameworks.
Standards, guidance and spatial tools		
South African National Biodiversity Institute (SANBI) Biodiversity GIS (bgis.sanbi.org)	Baseline environmental description.	Used during desktop research to identify sensitive environments in the prospecting rights area.
QGIS Desktop: Version 2.18.10.	Baseline environmental description and mapping.	Used during desktop research to map the locality and sensitive environments in the prospecting rights area.

10.NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES

NEED AND DESIRABILITY OF THE PROPOSED PROJECT

PART I: NEED

Questions (Notice 792, NEMA, 2012)		Answers
1.	Is the land use associated with the activity being applied for considered within the timeframe intended by the existing approved SDF agreed to be the relevant environmental authority?	Prospecting is an integral part of its rationale to make use of the abundant natural resources in the area to create strong, resilient, and prosperous district. The land use is not associated with prospecting.
2.	Should the development, or if applicable, expansion of the town/area concerned in terms of this land use occurs here at this point in time?	Should a mining right be applied for and be approved in future, the integrity of the existing environmental management priorities of the area may be compromised, and a full Environmental Impact Assessment must then be conducted to determine the sustainability of the prospecting activities. The proposed project will have a positive impact on the socio-economic conditions of the local communities involved, should the results of the prospecting show that feasible reserves are present to mine and a mining right is approved.
3.	Does the community/area need the activity and the associated land use concerned? This refers to the strategic as well as local level.	According to the IDP (2022/2023), the major towns of Lekwa local municipality are Bloemhof and Christiana, which are predominantly farming towns; hence, the major private-sector employers are farmers. The informal economy in Standerton is estimated to employ 80% of the Lekwa local community, with the aim of promoting tourism and economic and social development. This is also in support of SMME, or business incubation, programmes aimed at achieving SMME growth and expansion. The Lebano Assets (Pty) Ltd prospecting will yield positive impact on the socio-economic conditions especially if it graduates to mining, by creating more jobs and providing developments to the local dwellers and more to the farm workers.

4.	Are the necessary services with adequate capacity currently available (at the time of application) or must additional capacity be created to cater for the development?	All service and capacity infrastructure will be temporary and provided for the proposed prospecting/drilling activities. Mobile toilets and temporary shaded areas (in the form of gazebos) are examples of temporary infrastructure. The drilling mechanisms used will be diamond core drilling. The road networks are completely intact, and the project will have no significant impact on traffic congestion. Existing routes will be used and maintained, as will the structures in the areas, for the duration of the drilling project.
15.	Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of the services and opportunity cost)?	The development is not provided for in the infrastructure planning of the municipality as it is a small development of local importance. Thus, the proposed project will not have any implications for the infrastructure planning, as no services and/or infrastructure needs to be upgraded or created to cater for this project. The proposed project will be making use of mobile structures.
6.	Is the project part of a national programme to address an issue of national concern or importance?	The mining sector is a significant contributor to the National GDP as well as a massive employer of people. This project will contribute to the National Development Plan of eradicating poverty/unemployment. Chapter 6 of the National Development Plan highlights an "inclusive rural economy" and the objectives of this plan are to create jobs in mining and industry and activating rural economies through service to small and micro mining.
PART II: DESIRABILITY		
7.	Is the development the best practicable environmental option for this land/site?	The project area lies on unclassified areas. The activities currently dominated by natural vegetation and little of plantation and

		cultivation. The disturbed areas (drill sites) will be rehabilitated after prospecting activities.
8.	Would the approval of this application compromise the integrity of the existing approved and credible IDP, and SDF as agreed to by the relevant authorities?	The approval of this prospecting application will not compromise the integrity of the existing environmental management priorities of the area provided that sensitive areas are avoided, and the mitigation measures as recommended in this report and in the EMPr are implemented.
9.	Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?	The integrity of the existing environmental management priorities for the area will not be compromised by this development.
10.	Do location factors favour this land use at this place? (this relates to the contextualization of the proposed land use on this site within its broader context).	Coal is formed by the accumulation of plant debris, which typically occurs in a swamp environment. The rate of plant debris accumulation must be greater than the rate of decay in order to form the thick layer of plant debris required to produce a coal seam. When a thick layer of plant debris forms, it must be buried by sediments like mud or sand. Typically, these are washed into the swamp by a raging river. The weight of these materials compacts plant debris, assisting in its conversion to coal. One foot of coal is equivalent to about ten feet of plant debris.
11.	How will the activity of the land use associate with the activity being applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	As far as the Basic Assessment on the area of question, there is known heritage or cultural significance as numerous graves were confirmed on site and Heritage study will be conducted with recommendations to the applicant.

12.	How will the development impact on people's health and well-being? (E.g. In terms of noise, odours, visual character and sense of place, etc.)?	<p>In summary, due to the fact that this area has a low density of residents (Community but has farmers, the impacts on well-being, following mitigation, will be as follows:</p> <ul style="list-style-type: none"> • Visual: Medium to low • Dust: Low • Noise: Low • Vibrations: Low <p>Strict adherence to the recommendations & mitigation measures identified will be ensured.</p>
13.	Will the proposed activity or the land use associated with the activity being applied for, result in unacceptable opportunity costs?	<p>For a long time, the mining industry in Mpumalanga has been a pillar of the economy. South Africa continues to demonstrate that mineral revenues can generate significant economic benefits in the countries where they are extracted. In order to maintain the need for electricity in the Lekwa Local Municipality, the applied commodity contributes significantly to the Municipal GDP.</p>
14.	Will the proposed land use result in unacceptable cumulative impacts?	<p>The proposed project only has minimal cumulative impacts that can be mitigated to an acceptable level. The measures outlined in the attached EMP will be used to keep the proposed project from having any significant long-term cumulative impacts on the receiving environment.</p>

Although prospecting is not a labor-intensive activity, few employees will be employed to assist with general duties. The essential services can also be obtained locally, depending on their availability, thereby expanding Lekwa's economy.

11. MOTIVATION FOR THE OVERALL PREFERRED SITE, ACTIVITIES AND TECHNOLOGY ALTERNATIVE

The application area has been selected as the preferred site based its proximity to existing mining activities and the geological formations in the area. The currently available historical geological information does not allow for the potential identification of economically viable resources; therefore, invasive prospecting activities have been included in the PWP.

Some of the techniques employed in the non-invasive prospecting activities will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Some of the invasive prospective activities include prospecting boreholes, boreholes to confirm continuity of mineralization & potential deposit size and resource definition drilling.

Soil baseline study, Hydrological baseline study and some Hydrogeological baseline study were conducted, and some specialist studies will not be conducted based on the theme sensitivities from screening tool as some sensitivities were not confirmed during ground truthing. However, boreholes that are in high sensitivity area will be repositioned to less sensitivity areas and other studies such as Heritage study will be conducted upon the request from SAHRA.

Geophysical surveys, and drilling are the only major methods used in exploring for deposits of this type and also for resource definition and evaluation. The technology to be used cannot be replaced by any other methods thus these are the preferred activities.

There is no other site alternative as the property provides the ideal geological formation for the presence of the minerals applied for.

Consultation with affected landowners and adjacent landowners was conducted in order to keep them informed about the proposed prospecting activities as well as to capture any comments and concerns they may have regarding the prospecting activity.

12. FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE

(NB!! – This section is about the determination of the specific site layout and the location of infrastructure and activities on site, having taken into consideration the issues raised by interested and affected parties, and the consideration of alternatives to the initially proposed site layout)

13. DETAILS OF DEVELOPMENT FOOTPRINT ALTERNATIVES

(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:

The development footprint is expected to be a fraction of the application area size, which is estimated to be 1 1518,270 hectares. The geology is the primary driver in determining the location of prospecting and mining. The inferred tectono-stratigraphic setting of the proposed prospecting area is considered favourable for hosting Coal mineralization. As such no assessment of alternative development scenarios were conducted.

13.1 PROPERTY

The application area has been selected based predominantly on historical data available for the region, which indicates

the potential for economically viable resources to occur. The Lebano Assets (Pty) Ltd. company therefore applied for prospecting portions 2, 3, 4, 15, and 7 of the farm Reebokfontein 1514 IS to determine the presence of the aforementioned mineral and whether these are feasible to enter into further studies towards a Mining Right.

13.2 TYPE OF ACTIVITY

In terms of the technologies proposed, these have been chosen based on the long-term success of the company in terms of their prospecting history. The prospecting activities proposed in the Prospecting Work Programme is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques. Due to the unavailability of extensive historical borehole datasets, invasive prospecting activities such as drilling as well as non-invasive activities will be conducted during prospecting. No bulk sampling work will be carried out during this prospecting program.

13.3 DESIGN OR LAYOUT

Since prospecting is temporary in nature, no permanent structures will be constructed. Negotiations and agreements will be made with the farm owners to use any existing infrastructure like access roads. Portable ablution facilities will be used. Also, activities will be limited to the drilling of 15 boreholes to be determined by the geological formations found during prospecting. Rehabilitation will be closely controlled, and supervision will be focused. However, no changes to the layout are considered but with the geophysical survey information, the boreholes can be orientated to match the shape of the good quality of resource.

14.4 TECHNOLOGY ALTERNATIVES

The technologies listed in the PWP have been selected as they are proven effective in the determination of resource viability within the proposed prospecting area. Some of the techniques employed in the non-invasive prospecting will include a literature survey, field reconnaissance/mapping, and geophysics survey of the geology, outcrops. Invasive technology alternatives have also been considered. It is hereby noted that the different phases and timeframes of the prospecting herein envisaged are, by their nature, dependent on the results obtained during the preceding phases of such prospecting. The proposals set out in the Prospecting Work Programme are therefore made on the basis that results obtained during the preceding phases may necessitate reasonable changes and adaptations to such proposals, which will be reported as prescribed.

13.15 OPERATIONAL ASPECTS

Due to the nature of the prospecting activities, no permanent services in terms of water supply, electricity, or sewerage facilities are required. The activities will commence with desktop study, which will comprise of literature search. This manner of survey will ensure that the client can clearly delineate areas which are regarded as suitable for further investigation and no unnecessary surface disturbance will be undertaken.

Based on the outcomes of the desktop study, drilling and coal, pseudo coal, clay and shale sampling will be undertaken for target areas only. Drilling and sampling is a minimal impact exploration method in terms of environmental disturbance. After the preliminary exploration work, the anomalies identified will be ranked for exploratory drilling. Site activities as it relates to exploratory drilling will comprise the establishment of the drill pad (drill pad clearing and compaction), drilling operations (drill maintenance, refuelling, core extraction and core storage) and rehabilitation activities (drill pad ripping and re-vegetation). No feasible alternative to the proposed exploratory drill methods currently exists. Impact associated with the drilling operations will be managed through the implementation of a management plan, developed as part of the application for authorisation.

13.6 OPTION OF NOT IMPLEMENTING

If the Prospecting Right is not granted, the potential to identify viable mineral resources could be lost. Historical prospecting and mining activities have taken place in the vicinity of the proposed prospecting right area and as such the proposed prospecting activities represent a continuation of surrounding land uses. Additionally, it allows for marginal land impacted on by historical prospecting and mining activities to be re-introduced into the economy. The option of not approving the activities will result in a significant loss to valuable information regarding the mineral status (in terms of the aforementioned minerals) 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.

14. DETAILS OF THE PUBLIC PARTICIPATION PROCESS TO BE FOLLOWED

1. PUBLIC PARTICIPATION METHODOLOGY

The Public Participation Process (PPP) is a requirement of several pieces of South African Legislation and aims to ensure that all relevant I&APs are consulted, involved and their opinions are taken into account and a record included in the reports submitted to Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study.

The legal landowners and other pre-identified key I&APs were sent an initial notification letter on the 21st of July 2023, through their registered email addresses. The announcement of the proposed project was also published through the Standerton Advertiser on the 24th of July 2023 where the I&APs were provided a period of 30 days to register for the proposed project (Newspaper advert shown in red polygon in Figure 9 below). Subsequent notifications were sent as I&APs were identified. All pre-identified and registered I&APs will be further notified of the availability of the DBAR & EMPr for review and comment which will be available for 30 calendar days. All comments received during this period will be included in this BAR & EMPr and submitted to the Commenting Authority. Further consultation was done through the

Figure 10: Newspaper advertisement of the proposed project

38

IDENTIFICATION OF LANDOWNERS

The Landowners were identified through a search conducted online (Windeed Search) that accesses the Title Deeds office database. Although some of the contact details of the landowners were not included in the deed search results. A site assessment trip was planned (on the 24th of July 2023) where Singo Consulting (Pty) Ltd.'s consultants visited each affected farm in the Standerton (Reebokfontein 1514 IS) region with the aim of inviting and notifying them of the Prospecting Right Application that has been lodged on their respective properties. Some of the identified landowners were provided with the official landowner notification letter, background Information Documents and proof of the deed results through their email address. Landowners that were not identified, Site notices were plugged on their gates as a way to invite them to contact the consultants regarding the project.

Community

A request for a community meeting with the ward 13 councillor (MS Sesana Masondo) was made by phone consultation on the 21st of July 2023, and we all agreed on the 13th of August 2023. As a result, on August 13, 2023, a meeting with impacted community members was held successfully at Katspruit 1516 IS Farm, with the presence of the ward councillor agreed upon. The meeting minutes and attendance register are included in Appendix C.



Figure 11: Proof of Community Meeting.

WinDeed Database D/O Property - List

IS, 514, MPUMALANGA

Lexis® WinDeed

Any personal information obtained from this search will only be used as per the Terms and Conditions agreed to and in accordance with applicable data protection laws including the Protection of Personal Information Act, 2013 (POPI), and shall not be used for marketing purposes.

SEARCH CRITERIA

Search Date	2023/06/20 04:25	Farm Number	514
Reference	-	Registration Division	IS
Report Print Date	2023/06/20 04:25	Portion Number	-
Farm Name	REEBOKFONTEIN	Remaining Extent	NO
Deeds Office	Mpumalanga	Search Source	WinDeed Database

PORTION LIST

Portion	Owner	Title Deed	Registration Date	Purchase Price (R)
1	ARNOLD EKSTEEN FAMILIE TRUST	T14233/2022	2022/12/21	13 088 383
2	BRAKVLEI EIENDOMS TRUST	T14195/2022	2022/12/21	8 473 096
3	BRAKVLEI EIENDOMS TRUST	T3374/2016	2016/03/31	13 000 000
4	BRAKVLEI EIENDOMS TRUST	T3374/2016	2016/03/31	13 000 000
5	RHEEBOKFONTEIN TRUST	T130564/2000	2000/10/24	150 000
6	BRAKVLEI EIENDOMS TRUST	T2069/2018	2018/02/21	3 597 434
7	TALJAARD MARIA CORNELIA LOUISA	T5430/1976	1976/02/18	-
8	BRAKVLEI EIENDOMS TRUST	T3374/2016	2016/03/31	13 000 000
9	RUSTFONTEIN TRUST	T10050/2011	2011/10/05	5 072 902

Figure 12: Deed search results of the farm Reebokfontein 1514 IS.

NOTIFICATION OF I&APS

The Public Participation Process (PPP) mainly comprises the communications and discussions with Interested and Affected Parties (I&APs) and is of utmost importance in any assessment process. The PPP, inter alia, involves the following:

- Notification of Stakeholders
- Personnel representing Government Departments and Non-Governmental Organizations were consulted using Background Information Document (BID), Consultation emails.

These I&APs' details were collected using information in the public domain. Using this information these identified I&APs were contacted via email with Background Information Documents containing a description of the prospecting operation and a way to contact for further information and how to be part of the process. These identified I&AP's are provided a period of 30 calendar days.

The following departments and organizations formed part of the consultation process;


.


Table 7: Summary of issues raised by Interested and Affected Parties.


Interested and Affected Parties		Date Received	Comments	Issues Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
List the names of persons consulted in this column, and						
Mark with an X where those who must be consulted were in fact consulted						
AFFECTED PARTIES						
Landowners/s						
Portion 2, 3 & 4	X	215/07/2023	(Phone call and Email)	➤ Please send me all the information you are consulting me with via email, we will then take it from there.	<ul style="list-style-type: none"> ➤ A BID, landlord notification letter, and deed search results were sent through email to the landowner on July 215, 2023, as per request. ➤ Follow-up email was also sent on the 10th of August 2023. ➤ No acknowledgement or response has been received up to date. 	Please refer to appendix 3
Brakvlei Eiendoms Trust/Quatium Energy						
Email: melanie@quantiamenergy.co.za						


				<ul style="list-style-type: none"> ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
<p>Portion 7</p> <p>Taalrd Maria Cornelia Louisa</p>	X	24 July 2023 (Face to face)	<ul style="list-style-type: none"> ➤ Thank you for coming and consulting me. You are more than welcome to do Prospecting Right in my farm portion, and I am also in support of any development as long as it brings upliftment to the community in terms of job opportunities. ➤ Also note that between 1970 and 1972, this area was drilled, and they found a 300-mm layer of coal. So I doubt that your people will find coal here because I am sure that my land does not have coal. However you are welcome to do 	<ul style="list-style-type: none"> ➤ Please note that your comments have been well received and it shall be incorporated into BAR A& EMPr. 	Refer to Appendix 4

		11/08/2023 (Phone call)	<p>prospecting right.</p> <ul style="list-style-type: none"> ➤ Send all the information to my wife's email. carienclaassen@gmail.com ➤ After receiving your email we will comment and send back the comments via email. ➤ Yes, we have received your email. I have shown it to my husband, Mr. Claassen to comment, but as a busy man, he never got a chance to look at it. But absolutely today, I will remind him. 	<ul style="list-style-type: none"> ➤ I just wanted to check if you have received the email that I sent on July 215, 2023. ➤ Please remind him to comment, as this prospecting right affects his farm and deadline for comments is coming. ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
--	--	----------------------------	---	--	--

Interested and Affected Parties		Date Received	Comments Issued Raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated
List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted					
Portion 15 Rheebokfontein Trust/ Ukhozi (Pty) Ltd.  Cell: 083 6151 4232	X	24/07/2023 (Face to face) 215/07/2023 (Email)	➤ I am the admin lady of Henbasekantoor; the landowner is not around; however, send all of this information to my email address, and I will forward the information to the landowner.	➤ A BID, Landowner notification letter aswell as deed search results were sent through email to admin lady (E. Uys) as per request.	Please refer to appendix 2


<p>Email: henbasekatoor@gmail.com or www.ukhozi-enviro.co.za or 'inus@ukhozi-enviro.co.za'</p>		<p>28/07/2023 (Email)</p>	<ul style="list-style-type: none"> ➤ Please register uKhozi Environmentalists as an IAP on behalf of PWG Attorneys acting on behalf of their client Rheebofontein Trust. ➤ Please send through all documents or comment either to us, or to PWG Attorneys. ➤ Kindly acknowledge registration as an IAP for this project. 	<ul style="list-style-type: none"> ➤ Kindly be advised that your comment below has been well received, acknowledged, and will be integrated into the BAR and EMPr. ➤ Attached is KML, REG 2.2 map and landowner notification letter as requested. ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
Adjacent Landowner					
Local Municipality					
 <p>LEKWA LOCAL MUNICIPALITY</p>	X	<p>24/07/2023 (Face to Face)</p>	<ul style="list-style-type: none"> ➤ We are not familiar with these applications however I Shall go through the Background Information document and May you kindly share your 	<ul style="list-style-type: none"> ➤ We shall wait upon your response after reading the background information document and an email containing 	<p>Refer to Appendix</p>

<p>Mr. Robert Mkhabela – LED Manager. Cell: +27 79 894 84156 Email: rmkhabela@lekwalm.gov.za</p>			<p>Maps via email, and I will get back to you.</p>	<p>the requested shall be sent.</p> <ul style="list-style-type: none"> ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
 <p><u>Name: Tlou Lehong</u> Town Planner: Department of Planning and Economic Development (Lekwa Municipality) <u>Tel: 087 1562 1521515</u> <u>Cell: 082 1521 15091</u> <u>Email: TLehong@lekwalm.gov.za</u></p>	X	<p>24/07/2023 (Face to face)</p> <p>215/07/2023 (Email)</p> <p>11/07/2023 (Email)</p>	<ul style="list-style-type: none"> ➤ May you kindly share your BID & Maps via email, and I will get back to you with the comment. ➤ The information is well received. We will review and submit our comments in due course. ➤ The proposed project is within jurisdiction of Lewa LM. ➤ The applicant should apply 	<ul style="list-style-type: none"> ➤ We will send you the documents as per request. ➤ Thank you. We shall wait upon your response. ➤ Please be informed that your email has been well acknowledged, and your comments below will be 	



			<p>for mining right in accordance with SPLUMA Act 2023.</p> <ul style="list-style-type: none"> ➤ The applicant must adhere all the relevant laws concerning the proposed project. ➤ Consult neighboring properties and establishment that will be directly impacted. 	<p>incorporated in the BAR and EMPr. Thank you very much.</p>	
 <p>Ward 13 Councillor Name: MS Sesana Masondo Email: smasondo@lekwalm.gov.za Cell No: 08381570466</p>		<p>215/ 07/2023 (Phone call)</p>	<ul style="list-style-type: none"> ➤ We are happy with the proposed project as per the phone call consultation. From my side, I don't object to anything. However, are you going to provide the community with job opportunities? ➤ Can we arrange the meeting to be on the 13th of August 2023, because in the coming weeks I will be attending workshops? ➤ I will confirm the meeting place via a phone call. 	<ul style="list-style-type: none"> ➤ At present, job opportunities are limited due to the prospecting right application. The focus is on searching for coal minerals, not mining. If a mining permit applicant is satisfied with the quantity, job opportunities may arise. ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and the email was acknowledged. 	

Ward 13 Community meeting		13/07/2023 (Face to face at Katspruit farm)	<p>The following questions were asked:</p> <ul style="list-style-type: none"> ➤ If ever we as the community get to agree, won't the owner have a problem? Or is it all in the hands of the community? ➤ How will prospecting coal affect them since they know mining involves blasting? ➤ How long will it take to get feedback from DMRE? ➤ Are we going to get job opportunities? Because our backgrounds are bad. ➤ The following comments were made: ➤ If this will bring Job 	<ul style="list-style-type: none"> ➤ Farm owners were consulted through BID, Landowner notification letter, and Windeed search, with some responding via email and others in person. ➤ Prospecting right involves drilling, so we are not going to blast. ➤ For the time being, there will be few job prospects; but, if the drilling crew requires assistance, the community will be given first consideration. 	
---------------------------	--	--	---	---	--


			<p>opportunities, then we happily accept this project as a community, with open hands “</p> <p>➤ We really hope you get the coal, so we can get employed, and please Consider us just like how you are engaging us now.</p>		
➤ Interested and affected parties					
<p>Name: Nkosinathi Nkosi</p> <p>Name: Thembi Nkosi Sithole</p> <p>Name: TL Ndlovhu</p>	X	<p>13/07/2023</p> <p>(Face to face)</p>	<p>➤ Are we going to be employed if they happen to find coal?</p> <p>➤ Are we going to be relocated?</p> <p>➤ Will the applicant find a place for our cattle when they start mining?</p> <p>➤ Uneducated people will they also be employed?</p>	<p>➤ For the time being, there will be few job prospects; but, if the drilling crew requires assistance, the community will be given first consideration.</p> <p>➤ Affected parties were consulted via phone call to go and check DBARs at the library and Municipality to check and make comments if they want to add on their previous comments.</p>	


 <p>Standerton Public Library Mr. Sibusiso Mjayaleo – Chief Librarian. Cell: +27 82 468 48150 Email: smjiyaleo@lekwalm.gov.za</p>	X	24/07/2023 (Face-face)	➤ please send me the BID and REG 2.2 via email.	➤ BID and REG 2.2 will be shared via email as per request. ➤ Draft BAR and EMPr was sent on the 21 st of August 2023 via email for review and no comments have been raised as yet. ➤ Draft Bar and EMPr was also curried via POSTNET on the 7 th of September to the library.	
➤ Organs of state					
 <p>Name: OliverJ Email: OliverJ@nra.co.za</p>	X		➤ No issues raised yet.	➤ BID, regulation 2.2 map and a KML of the application area were shared through email on the 14 th of July 2023. ➤ Draft BAR and EMPr was sent on the 21 st of August 2023 for review and no comments have been raised as yet.	

				<ul style="list-style-type: none"> ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
Email: Melissa.Lewis@birdlife.org.za	X		<ul style="list-style-type: none"> ➤ No issues raised yet. 	<ul style="list-style-type: none"> ➤ BID, regulation 2.2 map and a KML of the application area were shared through email on the 20th of July 2023. ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
 <p>Name: Tshilidzi Mavulwana Email:</p>	X	20/07/2023 (Email)	<ul style="list-style-type: none"> ➤ No issues raised yet, 	<ul style="list-style-type: none"> ➤ BID, regulation 2.2 map and a KML of the application area were shared through email on the 20th of July 2023. 	

tshilidzi.mavulwana@transnet.net				<ul style="list-style-type: none"> ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 2023 and currently waiting for response. 	
 <p>Johan Botha, RWA Manager: Land and Rights Regional Operations and Asset Services Tel: +27 17 614 8012 E-mail: jj.botha@sasol.com</p>	X	20/07/2023 (Email)	<ul style="list-style-type: none"> ➤ Sasol has no interest in this application as I&AP. 	<ul style="list-style-type: none"> ➤ BID, regulation 2.2 map and a KML of the application area were shared through email on the 20th of July 2023. ➤ Thank you for the feedback, your comments are acknowledged, and they will be incorporated into the final BAR&EMPr. 	
 <p>agriculture, land reform & rural development Department: Agriculture, Land Reform and Rural Development REPUBLIC OF SOUTH AFRICA</p>	X	20/07/2023 (Email)	<ul style="list-style-type: none"> ➤ The receipt of your email has been acknowledged. A response will be given as 	<ul style="list-style-type: none"> ➤ Good day, ➤ Kindly note that your email is acknowledged, and your assistance is 	

<p>Name: Maureen Nkuna</p> <p>Email: Maureen.nkuna@dalrrd.gov.za</p>			<p>soon as possible regarding the below land claim status.</p> <ul style="list-style-type: none"> ➤ Our current expected turnaround time for responses to the enquiry is approximately 14 days. ➤ NB: Please note that Ms Thandeka Dhlamini will be assisting you with a response to your enquiry. ➤ Kindly find the attached confirmation letter of the land claim status. 	<p>highly appreciated. Apologies for the late response.</p> <ul style="list-style-type: none"> ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. 	
 <p>water & sanitation</p> <p>Department: Water and Sanitation REPUBLIC OF SOUTH AFRICA</p> <p>Name: LekoaneJ@dws.gov.za</p> <p>Email: MnguniB@dws.gov.za</p>	X		<ul style="list-style-type: none"> ➤ No issues raised yet. 	<ul style="list-style-type: none"> ➤ BID, regulation 2.2 map and a KML of the application area were shared through email. ➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet. ➤ Closure email was shared on the 15th of September 	

				2023 and currently waiting for response.	
 <p>environmental affairs Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA</p> <p>Name: Bothata M.R Email: MRABOTHATA@dfre.co.za</p>	X	20/015/2023 (Email)	➤ No issues raised yet,	<p>➤ BID, regulation 2.2 map and a KML of the application area were shared through email on the 20th of July 2023.</p> <p>➤ Draft BAR and EMPr was sent on the 21st of August 2023 for review and no comments have been raised as yet.</p> <p>➤ Closure email was shared on the 15th of September 2023 and currently waiting for response.</p>	
 <p>Mpumalanga TOURISM AND PARKS AGENCY</p> <p>Name: Phumla Nkosi Email: phumla.nkosi@mtpa.co.za</p>	X	20/015/2023 (Email)	➤ Please find the attached maps and species status report as requested.	<p>➤ Apologies for the late response. Kindly note that your email has been received, thank you for the prompt response.</p> <p>➤ Draft BAR and EMPr was sent on the 21st of August 2023 via postnet for review and no comments have been raised as yet.</p> <p>➤ Draft BAR and EMPr was</p>	

				sent on the 21st of August 2023 for review and no comments have been raised as yet.	
	X	20/07/2023 (Sahra Website)	➤ No issues raised yet.	➤ BID was uploaded on the SAHRIS online application system. ➤ Draft BAR and EMPr was uploaded on the 21 st of August 2023 for review and no comments have been raised as yet.	

15. THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE ALTERNATIVES

Socio-economic Context

Lekwa Local Municipality is a South African local municipality situated in the southwest of the Gert Sibande District Municipality of Mpumalanga. It has a population of about 123,418 people and covers an area of 4,1564.9 square kilometres. Some of the socio-economic challenges faced by the municipality are unemployment, poverty, inequality, HIV prevalence, basic service delivery, and ageing infrastructure (Stats SA, 2022).

The Municipality consists of Standerton which serves as an urban node, while Morgenzon, which is 415km North East of Standerton, serves as a satellite node. It is landlocked by the following local municipalities, Pixley ka Seme and Msukaligwa on the east, Dipaliseng on the west and Govan Mbeki on the north. The south edge is abutted by Mpumelelo Local Municipality which is in the northern part of the Free State Province. (<http://www.lekwalm.gov.za>)

Living Conditions in Lekwa

In the municipality, there are 31 071 households, with an average household size of 3,6 people. Piped water is available to 90.6% of families, either inside or outside their home. Only 2.4% of houses do not have piped water (Stats SA, 2022) . According to the 2016 community survey of Stats SA, the so-called poverty headcount (multi-dimensionally) of Lekwa increased slightly from 4.15% in 2011 to 15.0% in 2016 but third lowest in the province – the so-called poverty intensity increased slightly from 41.15% to 42.8% in the same period. Unequal distribution of income in Lekwa is measured by relevant inequality indicators, but an improving trend the last couple of years. Improved Human Development Index (HDI) from 0.156 in 2016 to 0.61 in 2020. Poverty drivers according to the 2020 CS of Stats SA especially unemployment and factors such as the level of education.

Economy

Average annual economic growth rate for Lekwa low at 0.7% over the period 2016 to 2020 the forecasted average annual GDP growth for Lekwa for 2016-2020 just more than 1.4% per annum. Two- thirds of the Lekwa economy - mining, trade, community services and manufacturing. Contribution to the Mpumalanga economy less than 3.1% making it the 9th largest economy in the province and third largest in Gert Sibande. The size of the economy in 2016 was estimated at more or less R9.1 billion in current prices. Comparative advantage in economic industries/sectors such as agriculture, mining and utilities. Tourism expenditure in the area as a percentage of the local GDP relatively low at approximately 2.4% of the GDP, which is one of the lowest in the province. According to Stats SA (2022), 46 013 persons are economically engaged (employed or jobless but seeking for work), with unemployed constituting 215.9% of the total. 315.2% of the area's 23 126 economically active youth (15-34 years) are unemployed (Refer figure 12 below).

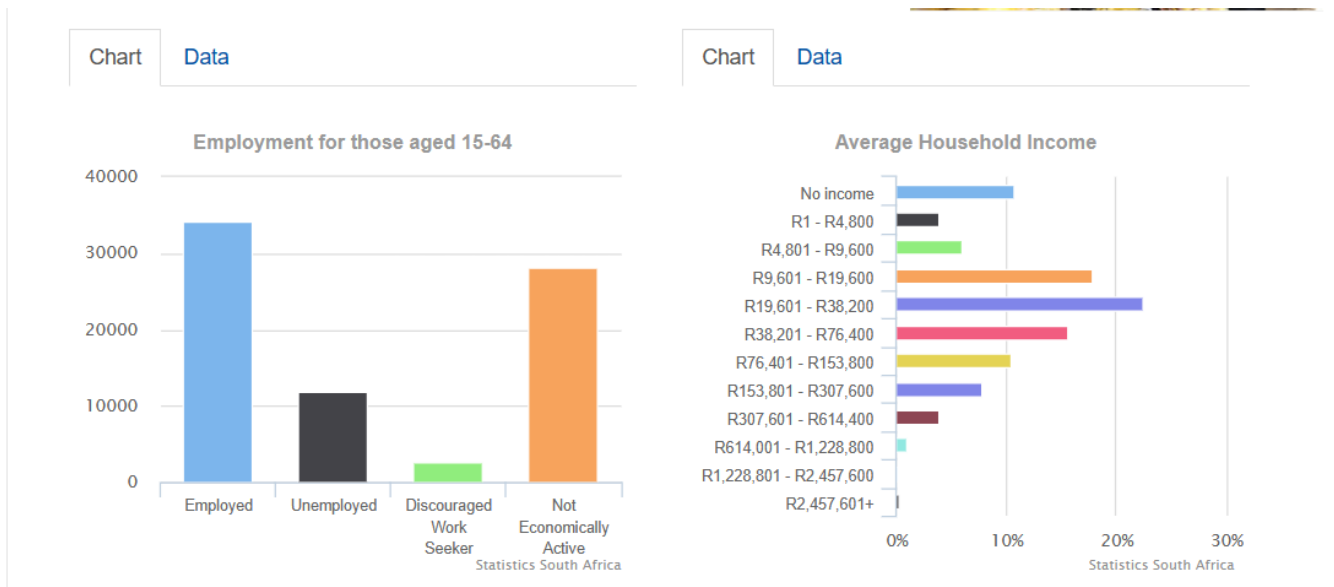


Figure 13: Employment for those age 15-64 Average Household income (Stats SA, 2022)

Labour Market

Lekwa economy is one of the growing economies in the area and it is therefore expected that a significant number of employment opportunities are being provided in the area. Mining, trade, community services and manufacturing are the major leading employment drivers in Lekwa LM. The unemployment rate of Lekwa decreased slightly from 215.9% in 2011 to 23.4% in 2015 and was ranked the 15th lowest among all the municipal areas of Mpumalanga. Unemployment rate for females 30.2% and that of males 18.15%. Youth unemployment rate according to the 2011 Census challenge with especially very high youth unemployment rate of females. The largest employing industries in Lekwa are trade (including industries such as tourism), community/government services and mining. High labour intensity in industries such as agriculture, trade and construction.

16. GEOLOGY

REGIONAL GEOLOGY

The main Karoo Supergroup basin covers more than half of South Africa's surface and is divided into five age-based groups that exhibit a change in depositional environment over time. The Dwyka (glacial), Eccca (shallow marine and coastal plain), Beaufort (non-marine fluvial), Stormberg (aeolian), and volcanic Lebombo or Drakensberg groups are among these. Several studies conducted in the 1970s (Cadle, 1974; Hobday, 1973, 1978; Mathew, 1974; Van Vuuren and Cole, 1979) demonstrated that the Eccca Group could be subdivided into several informal units based on the cyclic nature of the sedimentary fills. The South African Committee for Stratigraphy (SACS) established a formal lithostratigraphic nomenclature for the Eccca Group in the northern, distal sector of the MKB in 1980, replacing the previously used informal Lower, Middle, and Upper subdivisions with the Pietermaritzburg Shale Formation, the Vryheid Formation, and the Volksrust Shale Formation.

DWYKA GROUP

The rocks of the Dwyka Group in South Africa are amongst the most important glaciogenic deposits from Gondwana. This Group is named for exposures along the Dwyka River east of Laingsburg and forms the basal succession of the Karoo Supergroup. Dwyka Group strata are mostly contained within bedrock valleys incised into Archean to lower Palaeozoic bedrock (Visser, 1990; Visser and Kingsley, 1982; Von Brunn, 1996). The lithologies in the areas underlying the coalfields of South Africa consist of a heterolithic arrangement of massive and stratified polymictic diamictites, conglomerates, sandstones, and dropstone-bearing varved mudstones. The easily identifiable lithologies form a good marker below the coal bearing Eccca Group. In the distal sector of the MKB these sedimentary strata accumulated largely as ground moraine associated with continental ice sheets and is generally composed of basal lodgement and supraglacial tills. These deposits are generally massive, but crude horizontal bedding occurs in places towards the top (Tankard et al., 1982).

ECCA GROUP

In the 1970s several studies (Cadle, 1974; Hobday, 1973, 1978; Mathew, 1974; Van Vuuren and Cole, 1979) showed that the Eccca Group could be subdivided into several informal units based on the cyclic nature of the sedimentary fills. In 1980 the South African Committee for Stratigraphy (SACS, 1980) introduced a formal litho stratigraphic nomenclature for the Eccca Group in the northern, distal sector of the MKB, which replaced the previously used informal Lower, Middle and Upper subdivisions with the Pietermaritzburg Shale Formation, the Vryheid Formation, and the Volksrust Shale Formation.

In general, the coal deposits in South Africa are hosted in the Karoo Supergroup, which was deposited in the Gondwana basin that covered parts of Africa, Antarctica, South America, and Australia. The basal stratigraphy of the Karoo Supergroup comprises the Dwyka Group, which is a Late Carboniferous to Early Permian (~320 Ma) sequence of glacial and periglacial sediments, including diamictite, till moraine, conglomerate, sandstone, mudstone and varved shale. This

is overlain by the Eccca Group, which is an Early to Late Permian (~260 Ma) sequence comprising sandstone, siltstone, mudstone and significant coal seams deposited in a terrestrial basin on a gently subsiding shelf platform.

In South Africa, based on the literature; only 19 coalfields (see figure 14) are generally accepted which cover an area of approximately 9.7 million hectares (ha). The distinction between coalfields is based on geographic considerations and variations in the mode of sedimentation, origin, formation, distribution, and quality of the coals. (Hancox & Götz, 2014).

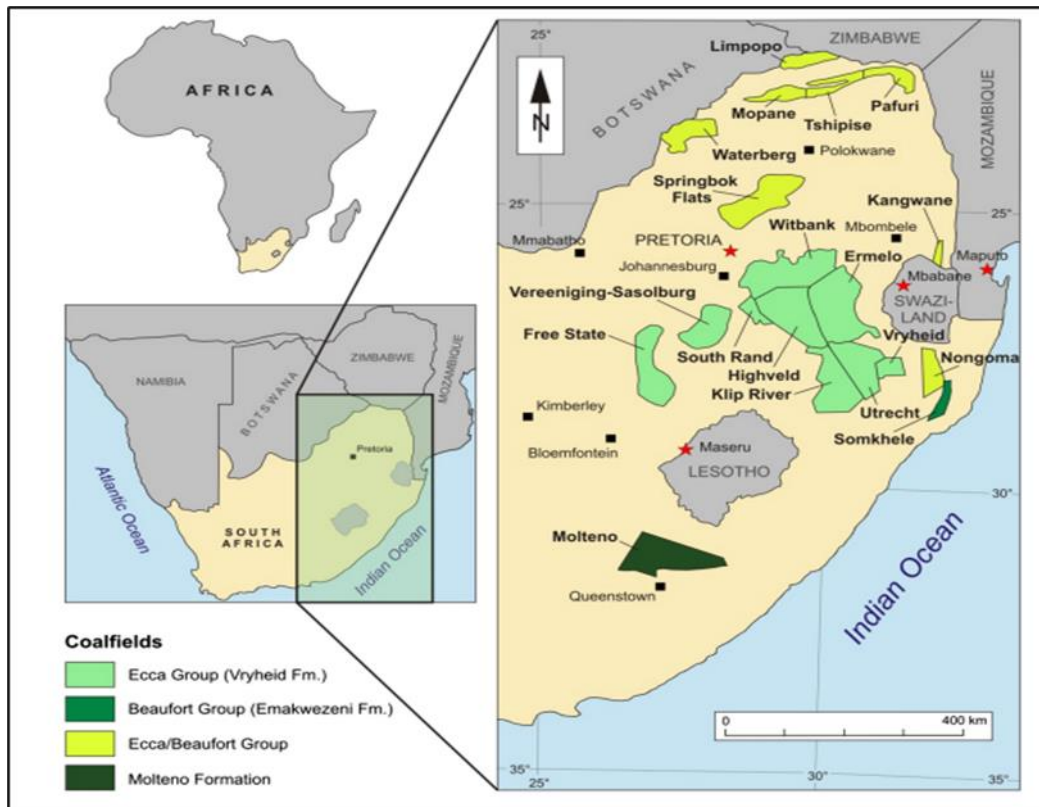


Figure 14: South Africa's coalfields. (Singo GIS, 2023)

17. LOCAL GEOLOGY

VRYHEID FORMATION

The thickness of the Vryheid Formation generally thins towards the north, west and south for a maximum of 1500 m. However, the marked variations in thickness can be witnessed in the northern and north-western margins of the basin where the formation rests directly on the uneven pre-Karoo topography. The Vryheid formation is characterized by different lithofacies, which are mainly arranged in upward coarsening cycles, which are essentially of deltaic origin.

According to Johnson et. al (2006), the base of an idealised coarsening-upward deltaic cycle in the eastern part of the formation consists of dark-grey, muddy siltstone resulting from shelf suspension deposition in anoxic water of moderate depth. Prodelta sediments are represented by alternations of bioturbated, immature sandstones, dark siltstones and mudstones of a centimeters to decimetre scale. The Vryheid Formation can be subdivided into a lower fluvial-dominated deltaic interval, a middle fluvial interval and an upper fluvial-dominated deltaic interval in the east (Tavener-Smith et al., 1988a). These subdivisions correspond approximately to the "lower sandstones", "coal zone" and "upper sandstone" of

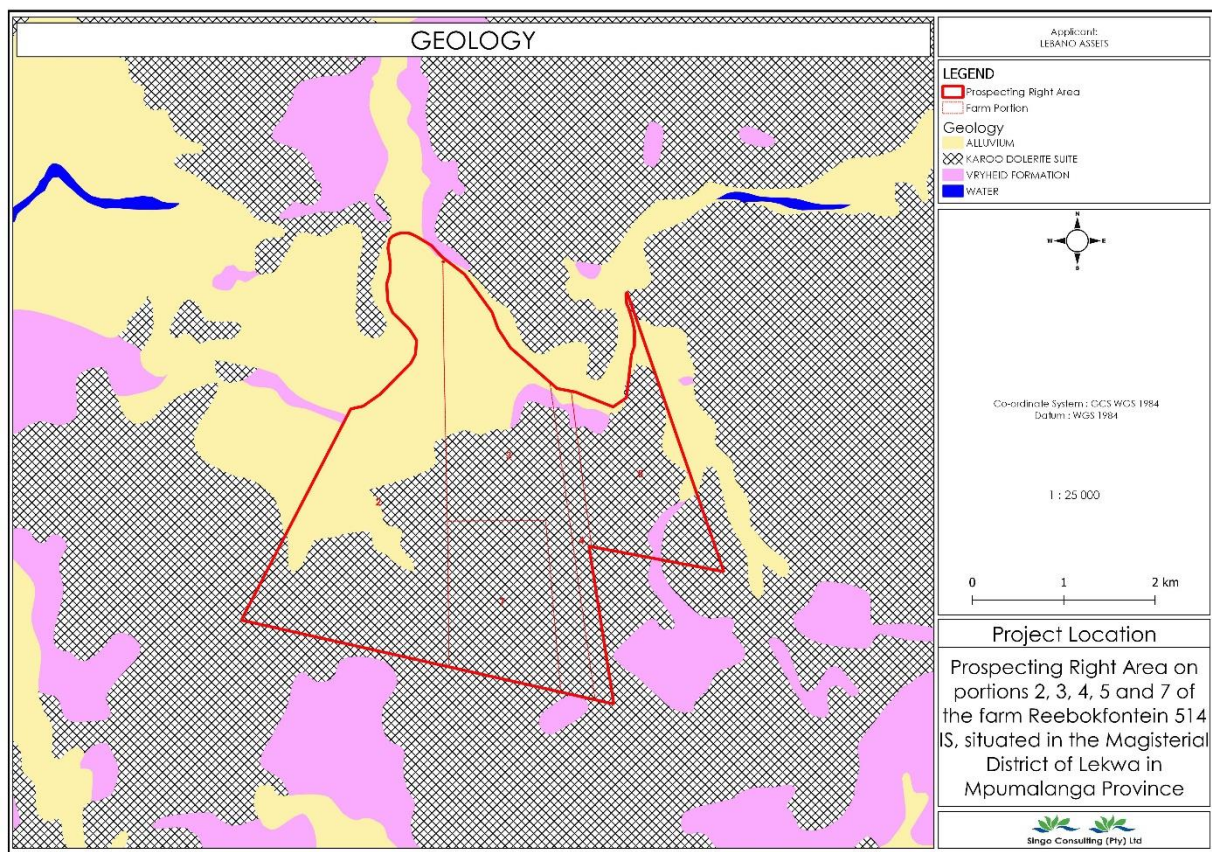


Figure 15: Geology of the Project area (Singo GIS, 2023)

HIGHVELD COALFIELD

The Highveld Coalfield is situated in south-eastern Gauteng and Mpumalanga and covers an area of approximately 700,000 ha, extending over a distance of approximately 915 km from Nigel and Greylingstad in the west, to Davel in the east, and about 90 km in a north–south direction. As mentioned above, the northern margin of the Highveld Coalfield is defined by the Smithfield Ridge. The western part of the northern boundary is poorly defined and the demarcation around Leslie and Devon is rather arbitrary. In the west and south-west, the Coalfield is bordered by outcrops of granite and rocks of the Witwatersrand Supergroup. The eastern boundary is approximately demarcated by a line extending from Hendrina in the north-east, through Davel and Morgenzon, to the Klip River Coalfield in the south. The southern boundary is located south of Standerton along the Klip River to its confluence with the Vaal River, and from there along the Vaal River to a point south of Greylingstad.

18. COAL SEAMS OF THE HIGHVELD COALFIELD

The prospecting right is located within the Highveld Coalfield based on the generally accepted coalfields shown by Gotz & Hancox, (2014) in Figure 7 below. This coalfield comprises of 15 coal seams labelled from top to bottom as follows:

The No. 15 Seam is widely developed at a depth of between 115 and 1150 m. It ranges in thickness between 0.30 and 3 m. A 0.4–0.6 m hard siltstone parting may be present in places along the northern margin of the Coalfield, which often

renders the seam uneconomic. Where this parting is not present, a high-grade product may be produced through beneficiation. On Keaton's Sterkfontein Project in the southern part of the Coalfield the No. 15 Seam is present in most of the holes at an average depth of 132 m and forms a thin (usually less than 30 cm) dull coal seam, which is a prominent marker horizon, between 115 and 60 m above the No. 4 Seam (Dekker and van Wyk, 2008). It is not considered as being economic. At Twistdraai to the southwest, this seam is on average 1.4 m thick but is not currently mined. At Matla the No. 15 Seam is of good quality (215–27 MJ/kg raw CV) but was only extracted to a limited scale due to the high levels of contamination from the poor floor and roof.

The **No. 4 Seam** is the major economic coal seam developed in the Highveld Coalfield and forms the bulk of the coal resources. The seam lies at a depth of 115 m in the Kriel area, deepening to around 300 m.

The **No. 3 Seam** is intermittently developed and thin, being generally less than 0.15 m thick. It may locally be up to 1 m thick in the western part of the Secunda reserve area. Hagelskamp et al. (1988) document the No. 3 Seam as averaging between 0.15 and 0.6 m in their study area. Where the parting between the No. 3 and No. 4 Lower Seam becomes thin (less than 0.15 m) the two seams are mined as one unit.

The **No. 2 Seam** is developed at a depth of approximately 30 m in the northern margin of the Coalfield and up to a depth of 240 m in the southwest. It ranges in thickness from 4 m along the northern margin and up to 10 m in valleys in the west. The seam thins to less than a metre in the east and southeast, and may change down dip into carbonaceous mudstone, such as is seen on KEH Sterkfontein Project area. Siltstone and mudstone partings are present and distributed throughout the seam splitting it into a 2U and 2L seam. In most cases it is mined selectively because of the partings.

The **No. 1 Seam** is discontinuous and is mainly developed in the eastern part of the Coalfield, particularly in the Kriel area. Elsewhere in the Coalfield it is patchily developed and thin. As in the Witbank Coalfield it is topographically controlled and restricted to glacial valleys.

COAL QUALITY

General coal qualities for various areas of the Highveld Coalfield are provided in Jordaan (1986) and these are also reproduced in Snyman (1998). Jordaan (1986) covers the Leslie, Kriel and Val areas for the No. 2 Seam and the same areas plus the New Denmark area for the No. 4 Seam. He provides typical qualities for the mineable section in the Leslie area of 14.3% Ash and 26.31 MJ/kg CV but notes that the No. 2 Seam qualities are not however normally this good, usually varying between 22 and 31.5% and with CV's varying between 20 and 23 MJ/kg. Where mined the No. 3 Seam is generally an export quality (28.1 MJ/kg CV) thermal coal.

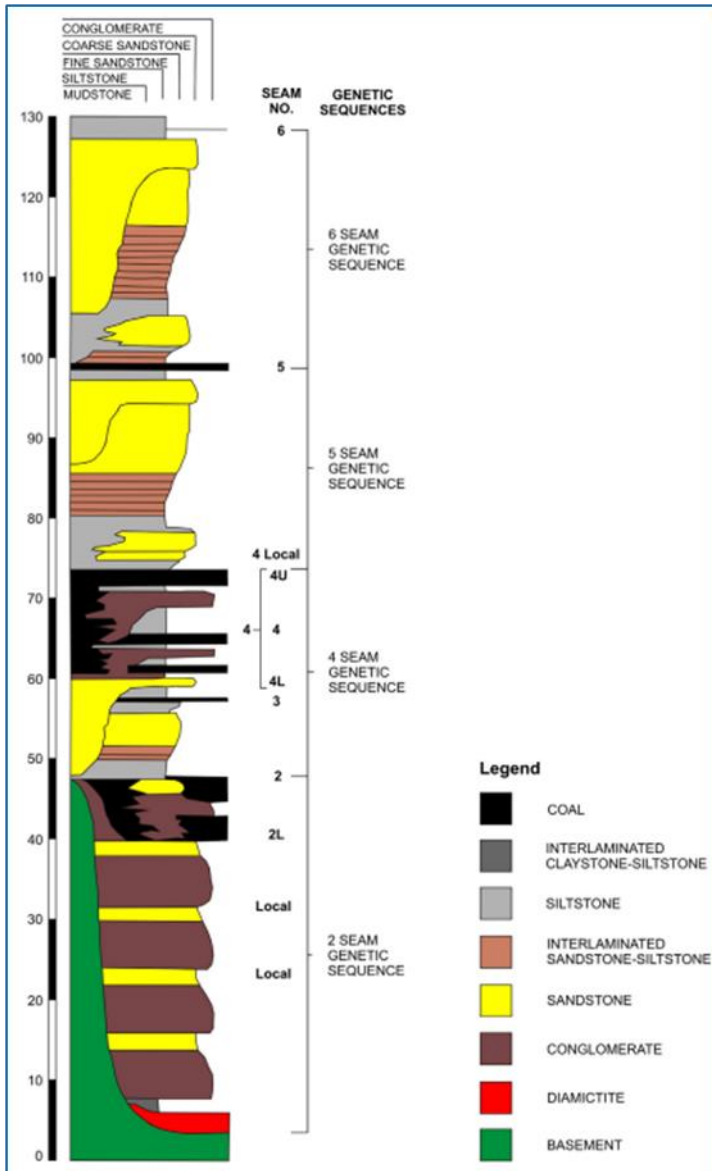


Figure 16: A typical representation of coal seams in the Highveld Coalfield -Cairncross and Cadle (1988)

19. NEIGHBOURING COAL MINES

A. New Denmark Colliery

The New Denmark Colliery was commissioned in 1982. In 2018, Anglo American sold New Denmark to Seriti Resources, the current owners. The mine is one of the deepest coal mining operations in South Africa as it operates at a depth of up to 200 meters. The type of coal being mined is of bituminous quality through mining methods such as underground, longwall and bord-and-pillar. The coal mined at the New Denmark Colliery is transported via conveyors from the Central and North shafts to the coal stockyard located at Eskom's Tutuka Power Station. Power Station, according to Seriti Resources. The mine has sufficient current and additional coal resources to supply the power station until 2039.

B. Bosjesspruit coal mine/ Irenedale Coal Mine

Bosjesspruit mine is owned by Sasol, who state that the mine will continue to operate until 2031. The primary destination for coal from this mine is Sasol Synfuels where it is used as gasification feedstock in Secunda and also as operations coal for Sasolburg operations. It is an underground mine in the Secunda Mining Complex, operated by Sasol Mining, producing between 6 and 6.15 million tonnes per annum of bituminous coal using bord and pillar mining method, in Secunda.

C. Impumelelo coal mine/ Brandspruit Colliery

The Impumelelo coal mine, formerly known as the Brandspruit mine, is an underground mine operated by Sasol Mining in Embalenhle, Mpumalanga, South Africa. The mine is a part of Sasol's Secunda Mining Complex. Impumelo was designed for a production capacity of 10.15 million tonnes per annum (Mtpa), as of September 2022, Sasol's website cites a nominated capacity of 6.6 Mtpa of bituminous coal. The mine is operating underground using bord and pillar mining method.

Figure 9 below depicts various coal mines in this region next to the project area. This increases our confidence in the area's coal status.

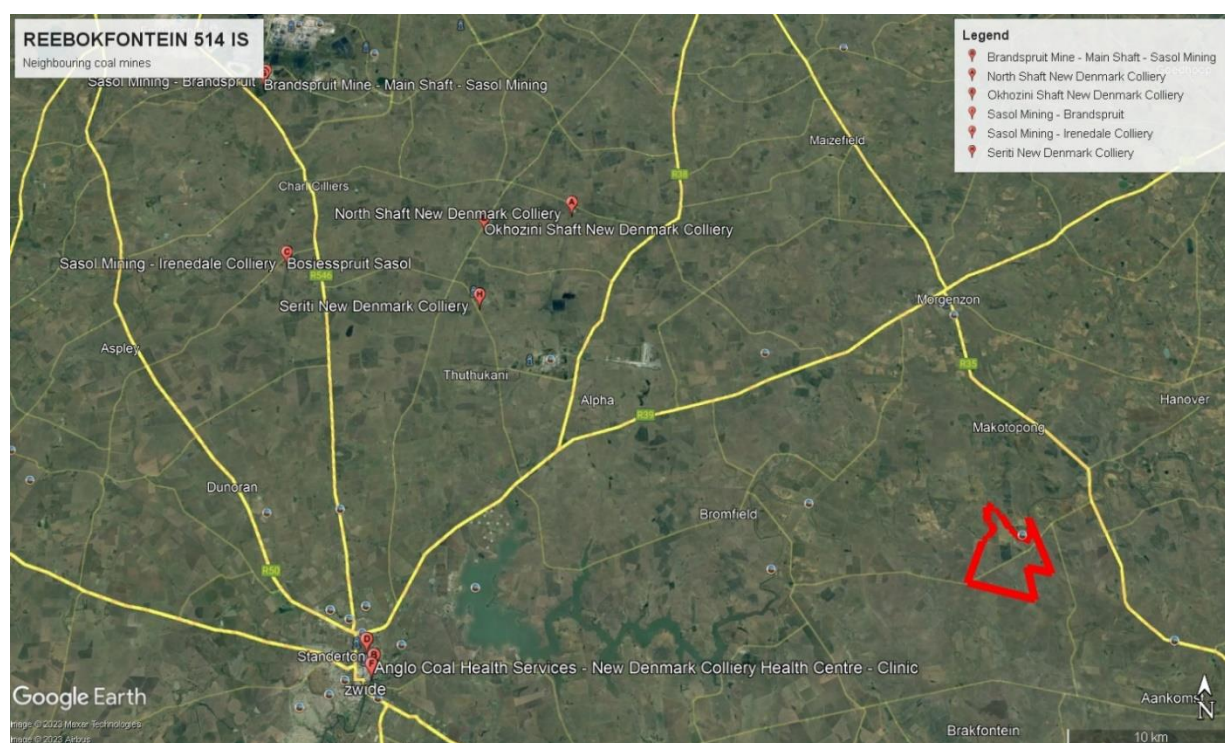


Figure 17: Neighbouring coal mines in relation to the locality of the project area (Singo GIS, 2023)

GEOLOGICAL DATA FROM COUNCIL FOR GEOSCIENCE (CGS)

Data has been requested from CGS and awaiting the response.

RESOURCE ESTIMATION

The resource estimation will be computed upon retrieval of historical borehole data from CGS, if it is available.

20. REGIONAL CLIMATE

The Prospecting Right area falls within a cool-temperate climate with thermic continentality. The area experiences high extremes between maximum summer and minimum winter temperatures, frequent occurrence of frost and large thermic diurnal differences especially in autumn and spring (Mucina and Rutherford, 2006).

A. Temperature

Annually the mean maximum temperature will range between 21.1°C and 27°C and the mean minimum temperature will range between -1,9°C and 10°C (AGIS Comprehensive Atlas, 8 May 2012).

Average daily temperatures were collected from the Standerton weather station in order to obtain a more accurate representation of the temperatures at the broiler facility (www.weathersa.com).

B. Rainfall

The site lies in an area of summer rainfall receiving a mean annual average rainfall of between 621.42 – 7152.36 mm. The rainfall fluctuations as well as the high intensity events will affect the project's construction process. It could obstruct construction activities during the early phases of the construction process with potential soaking of cement mixtures or foundation concrete. Construction should preferably be planned for the winter months in order to avoid delays in

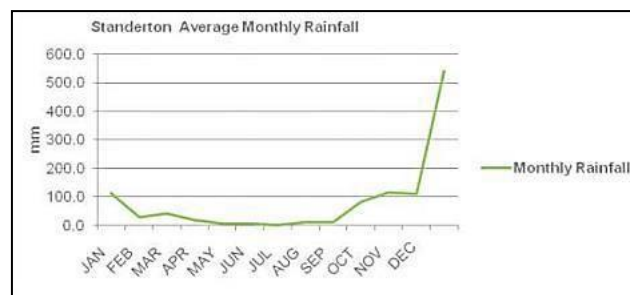


Figure 18: Average Monthly Rainfall

construction which could have negative socio-economic impact on development. The future effect of the rainfall should be small if adequately mitigated. The site is located about 26 km northwest of Standerton. The Average Monthly Rainfall (Refer to Figure 18) for the area was obtained from the Standerton weather station, as provided by www.weathersa.com. The Average Annual Rainfall for Standerton is also provided by www.weathersa.com.

21. TOPOGRAPHY

The prospecting area is situated within a region with generally flat to gently undulating topography, which is typical of the Mpumalanga region.

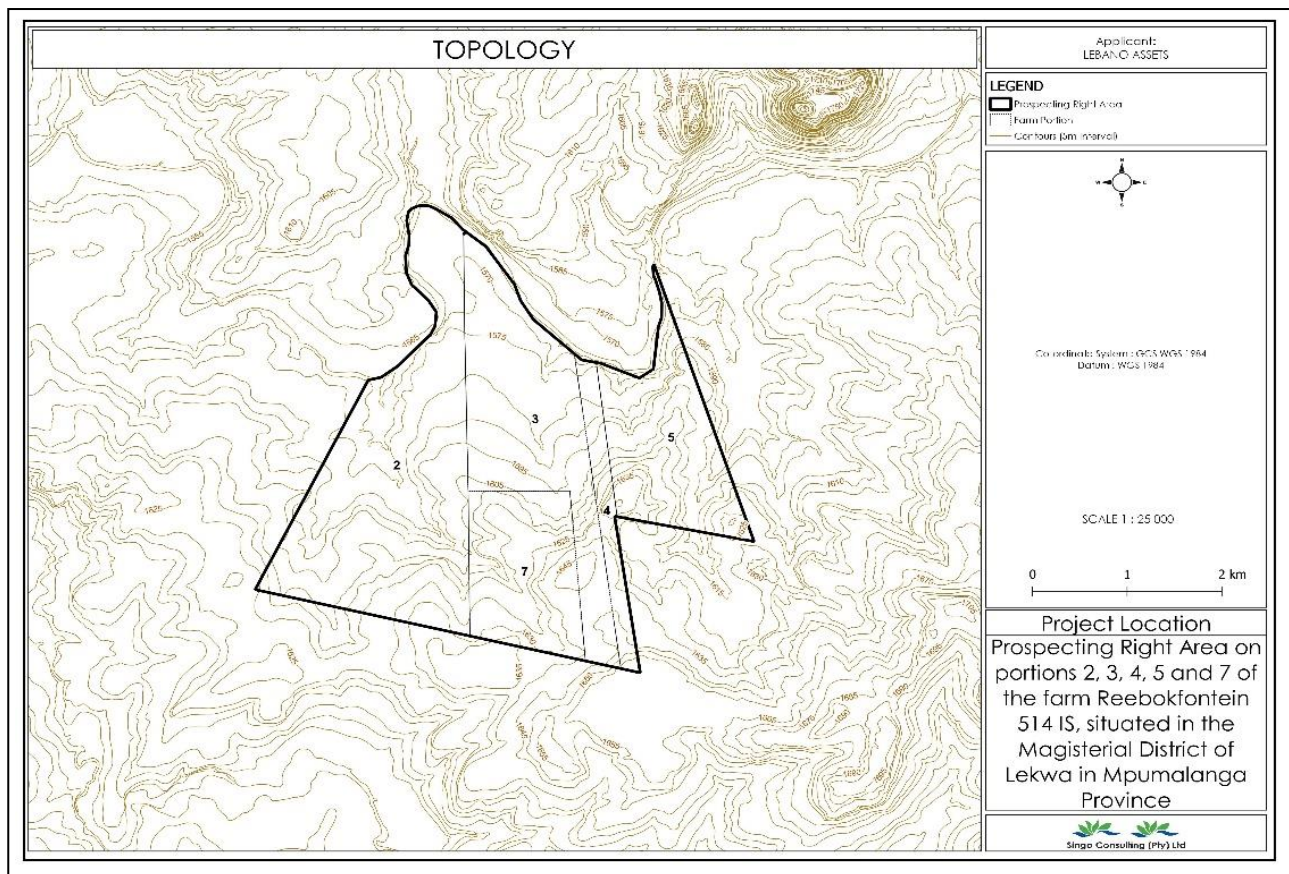


Figure 19: topography/ Topology of the proposed prospecting area. (Singo GIS, 2023)

C. SOIL CLASSES

The soil types of the proposed project area are association of classes 15, 6, 10, 11 and 12 as shown on figure 20 below. These are clay soils which possesses naturally high fertility. These soil type also known to be very plastic and sticky with high-swell potential. Swelling clays are clay soils that are prone to large volume changes (swelling and shrinking) that are directly related to changes in water content¹²³. Some clay minerals, such as smectite, are described as swelling clay minerals because they have a great capacity to take up water and they increase greatly in volume when they do so.

When dried, they shrink back to their original volume, producing distinctive textures such as mud cracks or "popcorn" texture in clay deposits². Soils with a high content of expansive minerals can form deep cracks in drier.

Topsoil will not be removed as there are no mining activities to be conducted onsite. No foundation excavations will be needed for fuel storage depot as fuel will be transported to site daily during the drilling phase. The boreholes footprint will be minimal. The pathways to be created to provide access of the drill rig can cause compaction of the soil. However, the pathways are to be stripped according to the stripping guideline and management plan when the soil is dry (as far as practically possible), to minimize the compaction. It is highly recommended to do rehabilitation after the drilling phase of the applied minerals has ceased.



Figure 20: Soil types observed on site (Singo Consulting, 2023).

D. HYDROLOGY

The Farm Reebokfontein 1514 IS falls within the Vaal Water Management area, Upper Vaal sub-catchment C12B. The Upper Vaal sub-catchment covers a wide range of areas, falling mainly within the Gauteng, Free State, and Mpumalanga Provinces. The area includes the towns of Ermelo, Secunda, Standerton, Vrede, Villiers, and Amersfoort to name a few. The Upper Vaal catchment is the most urbanized of the three sub-catchments, with most of the urban population located in Phuthaditjhaba and Vereenigin.



Figure 21: The Vaal River which traverses the application area (Singo Consulting, 2023).

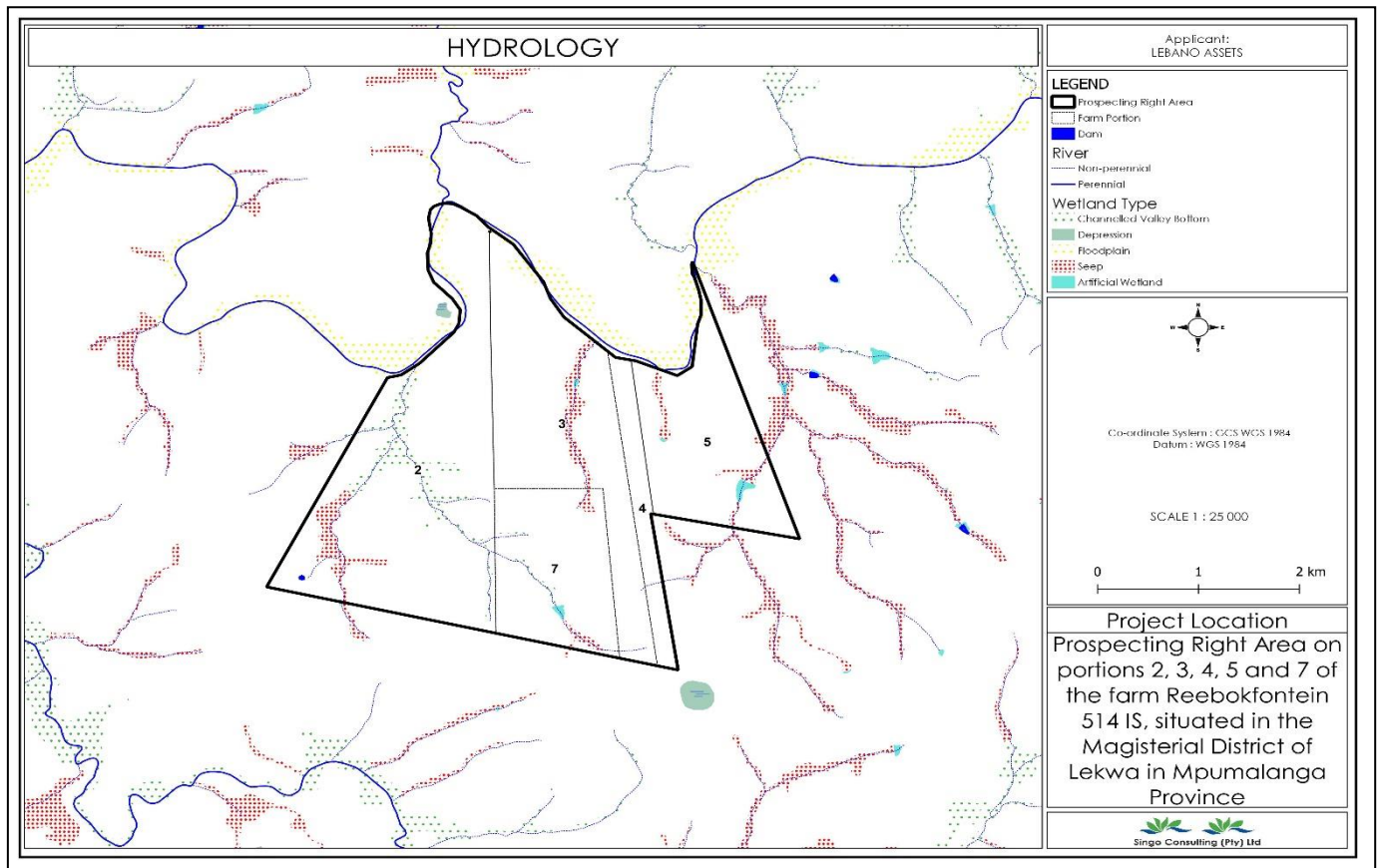


Figure 22: Hydrology of the proposed prospecting area (Singo GIS, 2023)

E. Surface Water

According to the wetland sensitivity map below, the project area does have a sensitive water body on site, the proposed project area also has a river (Rietspruit river) which is cutting through it from the north-easternside to the south-western side of the project area. Furthermore, the presence of any water body means that water resources on site must be protected. As a mitigation measure all activities must take place at approximately 100m away from the water bodies and if that can't be then the water bodies must be channeled away from the site. All activities must be conducted in a manner that ensures the protection of water resources from pollution; best practice guidelines must be applied.



Figure 23: wetland observed on site. (Singo Consulting, 2023)

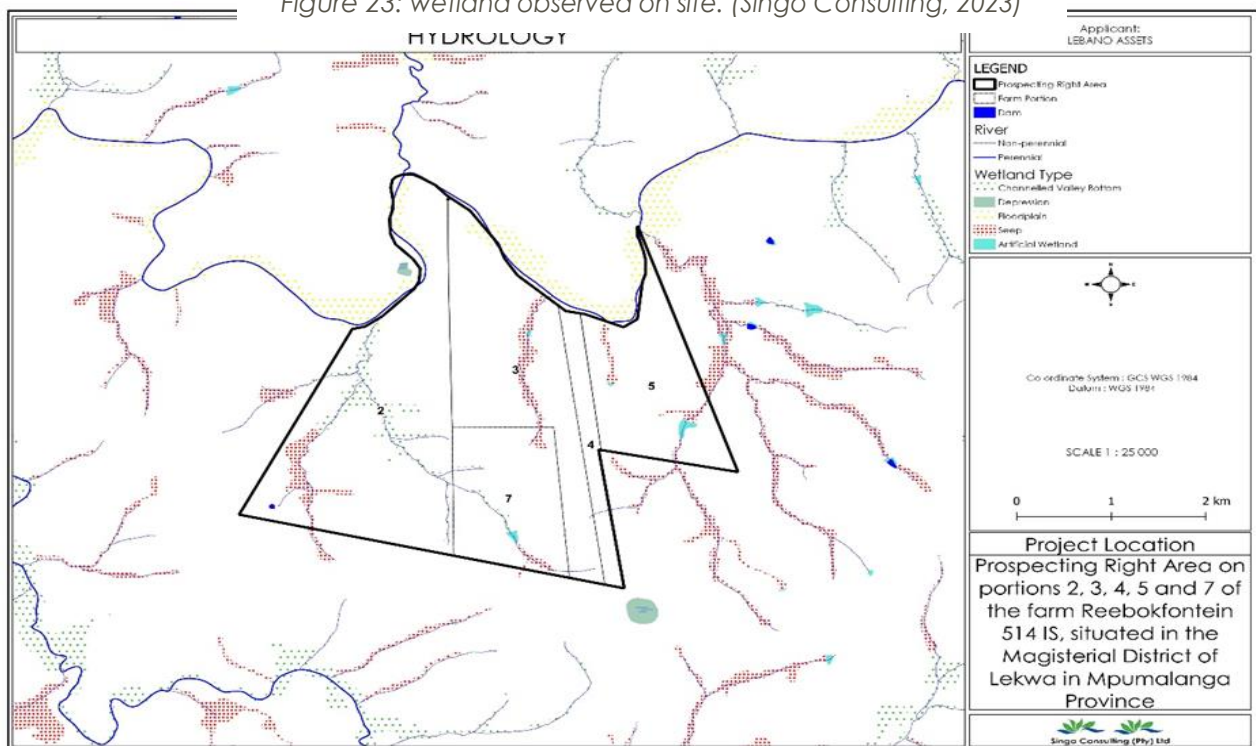


Figure 24: Hydrology map of the proposed prospecting area (Singo Consulting, 2023).

22. FLORA AND FAUNA

A. Chrysoritis Aureus

This is a range-restricted species endemic to Gauteng and Mpumalanga provinces in South Africa (EOO 297 km², AOO 36 km²). The number of locations is six, with fragmentation on the mountain tops. The population is prone to threats from urban sprawl, such as pollution, acid rain and habitat destruction by residential developments and invasion of alien plants. The AOO, habitat, number of individuals and subpopulation at the type locality are declining. There are less than 1 000 mature individuals in the entire population, with less than 2150 in each of the six subpopulations. The taxon thus qualifies globally under the IUCN criteria as Endangered under criterion C. (Henning J.B. (eds) (2009). South African Red Data Book: butterflies. SANBI Biodiversity Series, South African National Biodiversity Institute, 2009).

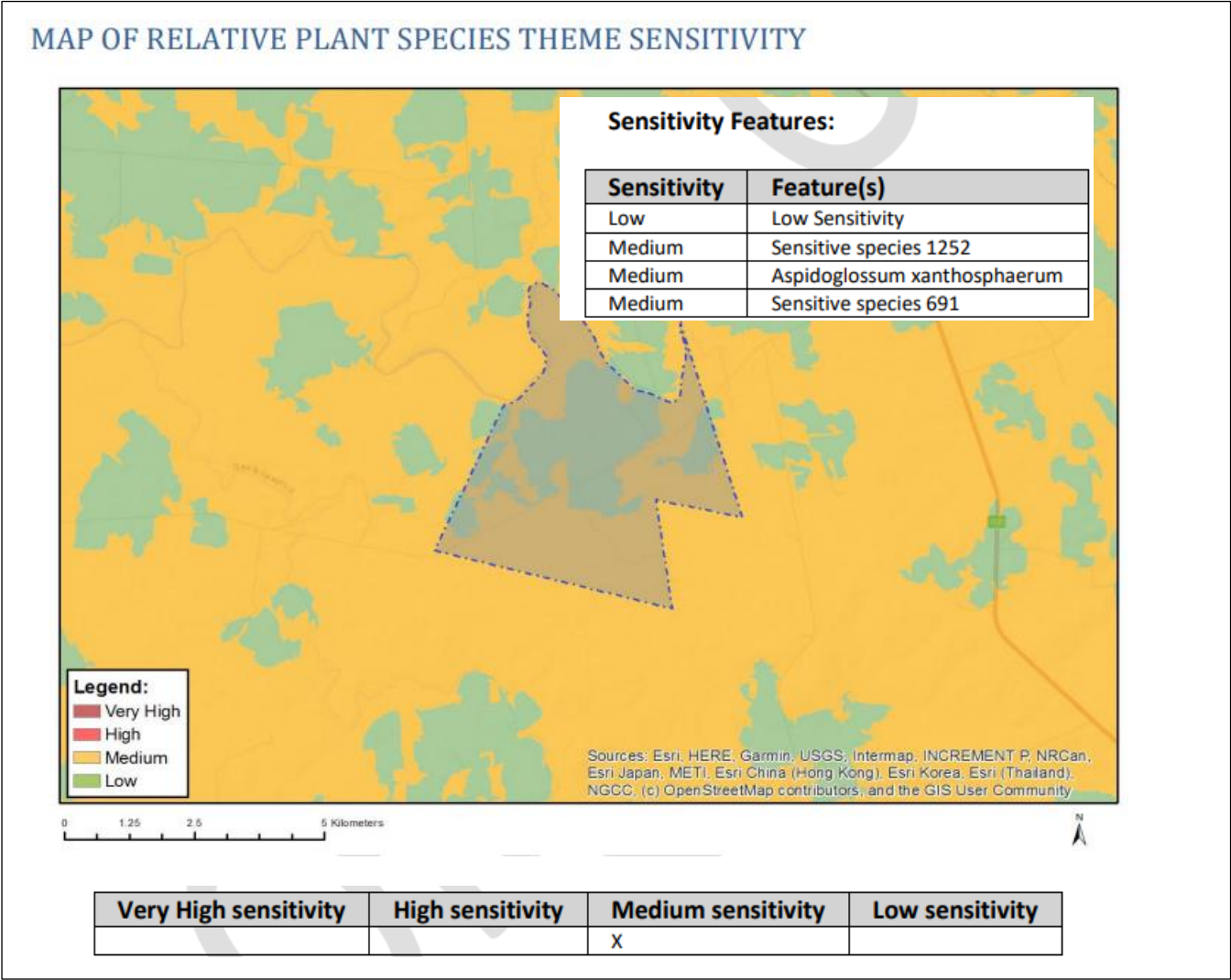
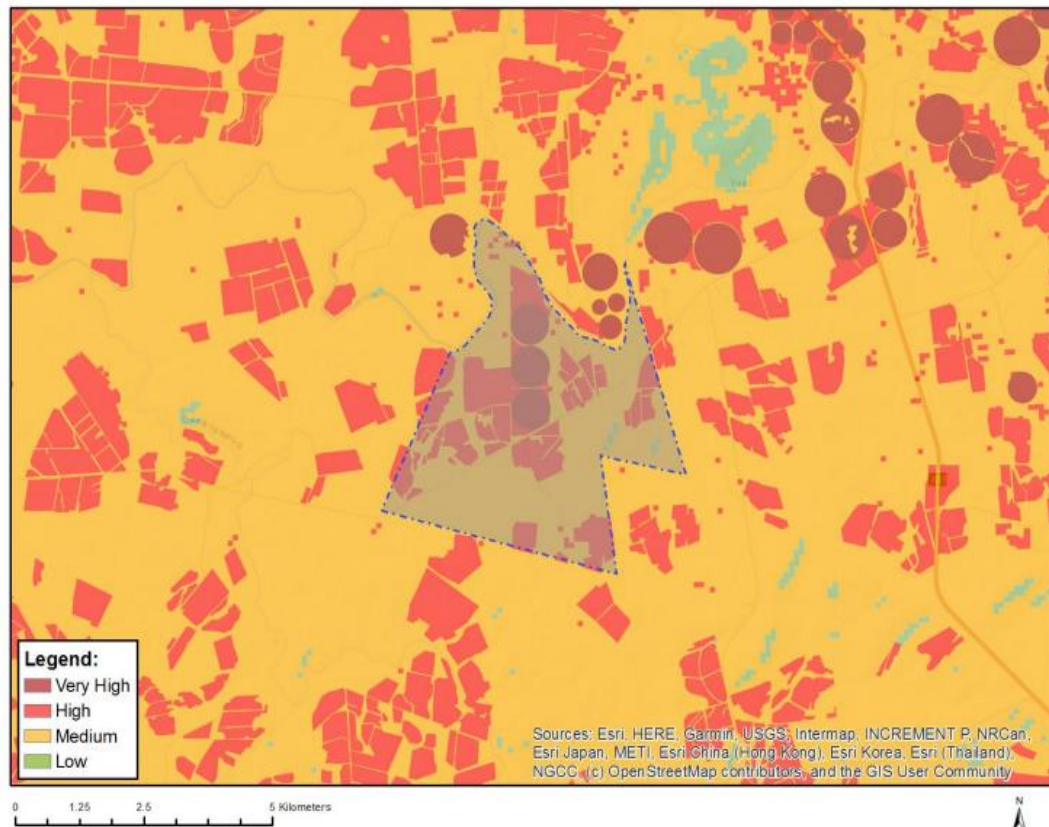


Figure 25: Plant species sensitivity (Singo GIS, 2023)

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
High	Old Fields;Land capability;09. Moderate-High/10. Moderate-High
High	Old Fields;Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
High	Annual Crop Cultivation / Planted Pastures Rotation;Land capability;09. Moderate-High/10. Moderate-High
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate
Very High	Pivot Irrigation;Land capability;09. Moderate-High/10. Moderate-High

Figure 26: Agriculture Theme Sensitivity

Distribution

Endemic to Gauteng and Mpumalanga provinces in South Africa, near Balfour and Greylingstad in the south and Alice Glockner Nature Reserve and Suikerbosrand Nature Reserve near Heidelberg in the north. (Henning J.B. (eds) (2009). South African Red Data Book: butterflies. SANBI Biodiversity Series, South African National Biodiversity Institute, 2009).

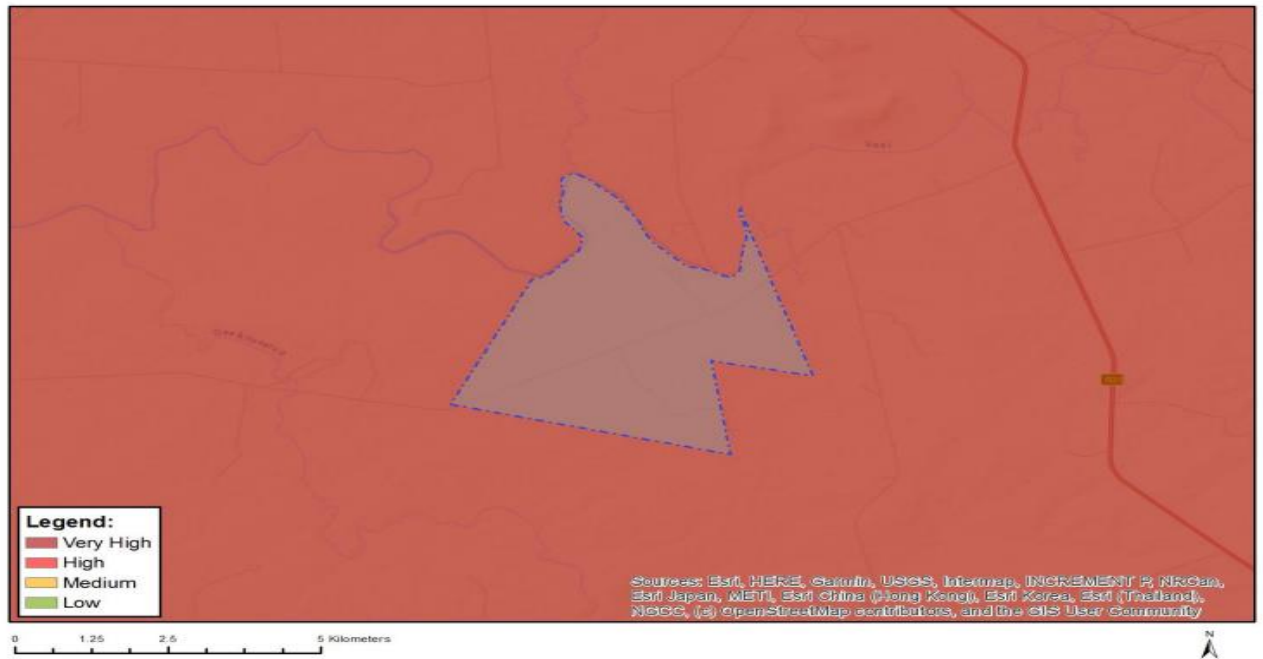


Figure 27: Vegetation type of the proposed prospecting area (Singo Consulting, 2023)

Terrestrial

Rocky ridges below the peaks of mountains, in grassland patches at altitudes of 1 600 m to 1 800 m with a diversity of forbs and stands of the host plant, *Clutia pulchella*, and the associated ant, *Crematogaster liengmei*, at sites covered with large rocks (0.15 m to 2.0 m high) and only on cooler south-facing, steep, uppermid-slopes. Woody elements are less than 2 m high, without a tree stratum. Fire appears to be an essential factor for the maintenance of suitable habitat. (Henning J.B. (eds) (2009). South African Red Data Book: butterflies. SANBI Biodiversity Series, South African National Biodiversity Institute, 2009).

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Figure 28: Relative Terrestrial Biodiversity (Singo GIS, 2023)

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

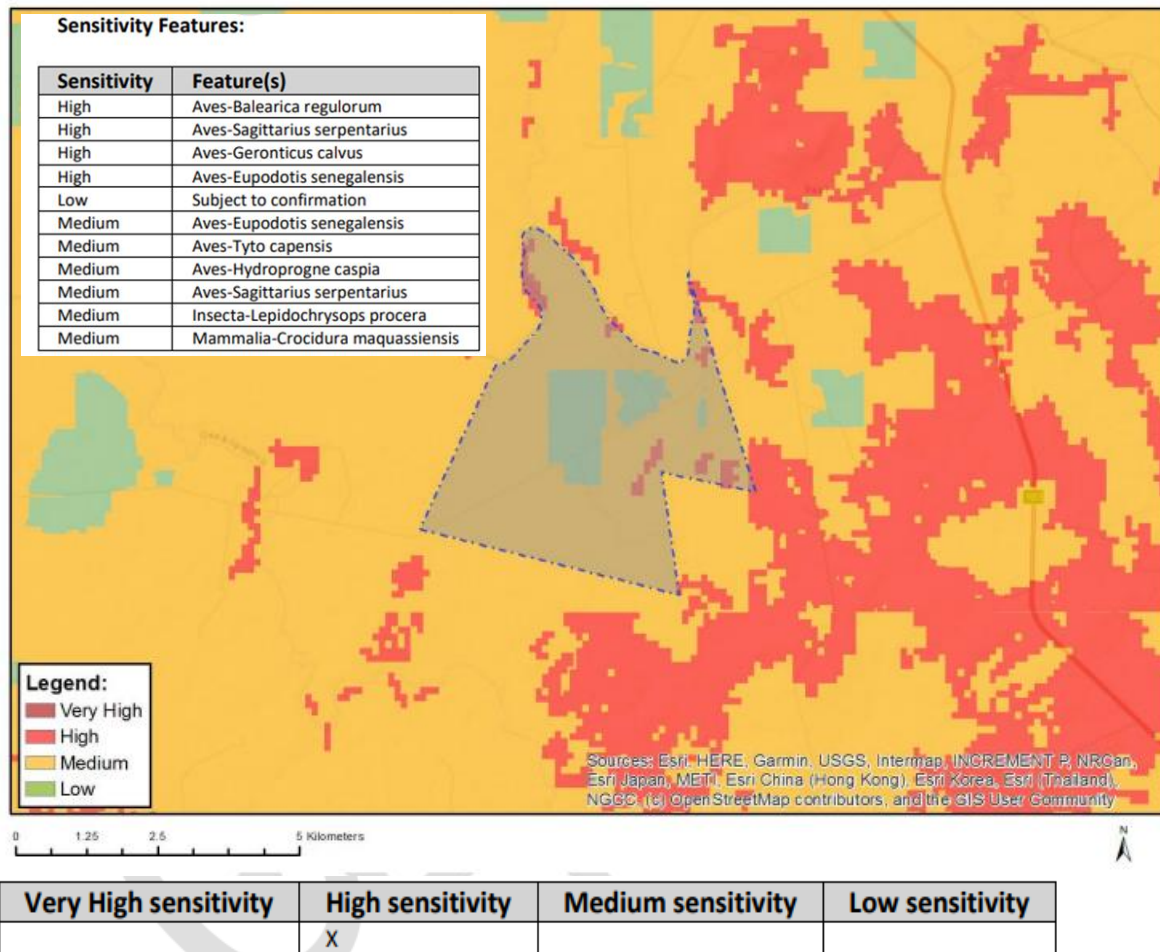


Figure 29: Map of relative animal species (Singo GIS, 2023)

FAUNA

The Screening report below shows that the proposed project area is of High sensitivity *Aves-Sagittarius serpentarius* (Secretary bird), Medium sensitivity *Aves Tyto Capensis* (African grass Owl), *Aves-Eupodotis senegalensis* (White-bellied bustard bird), *Insecta-Lepidochrysops procera* (butterfly), *Mammalia-Crocidura maquassiensis* (Makwassie musk shrew), *Mammalia-Ourebia ourebi ourebi* (small antelope) (**See Figure 29**). During Site Assessment, Cattle, horses, Goats and chickens were observed on site. If any faunal species are found on site when drilling, they won't be harmed. Any employee found trying to kill or take a wild animal on company property may be fined. Poaching of animals is forbidden. To prevent disturbance, the Environmental Control Officer will mark off areas with sensitive faunal species.

Animals observed on site.





Paleontological Assessments

The study of life that existed before the Holocene Epoch began (roughly 11,700 years before present), and occasionally even after it, is known as Palaeontology. It includes using fossil research to identify creatures and investigate how they interacted with one another and their environments. Paleontology lies on the border between biology and geology but differs from archaeology in that it excludes the study of anatomically modern humans. It now uses techniques drawn from a wide range of sciences, including biochemistry, mathematics, and engineering. The screening report shows that the proposed project area is of medium sensitivity to very high for Paleontology (see **Figure 30**). During assessment no paleontological features observed onsite. If paleontology futures might be identified during drilling the area will be demarcated and regarded as no go areas. No drilling will be conducted in areas where there are paleontological futures.

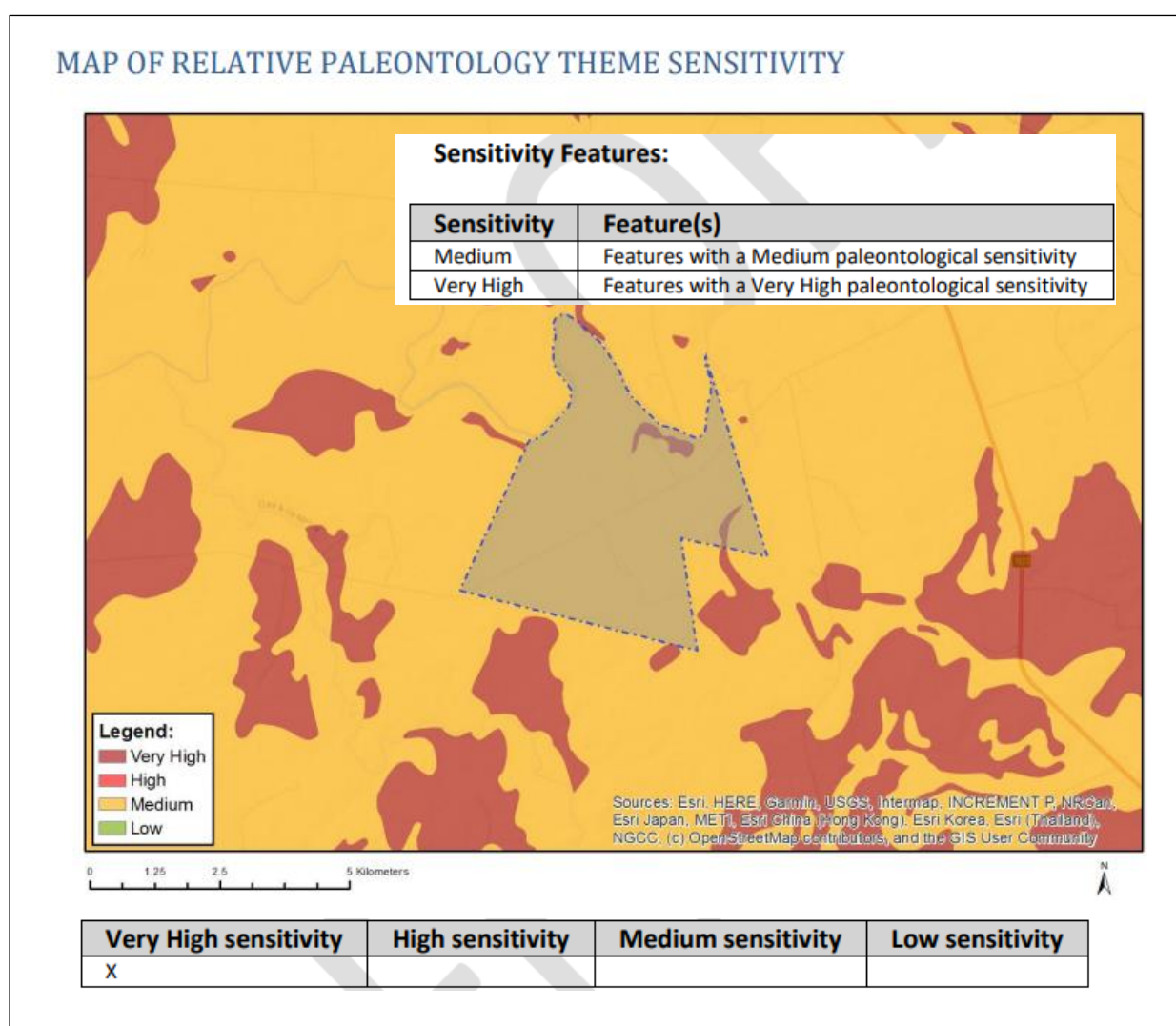


Figure 30: Map of Relative Paleontology Theme Sensitivity

BIODIVERSITY

According to the map produced by Singo Consulting (Pty) Ltd GIS specialist, the proposed project area falls within CBA Optimal, heavily modified, moderately modified- Old lands and ESA Local Corridor. (See **Figure 32**). CBA Optimal are areas that are optimally located as part of the most efficient solution to meet biodiversity targets. Heavily Modified areas are transformed areas, where biodiversity and ecological functions have been lost to the point that they are not worth considering for conservation at all. Moderately modified areas are areas which were modified within the last 80 years but now abandoned, including old mines and old cultivated lands. ESA Local Corridor are fine scale connectivity pathways that contribute to resilience and connectivity between climate change focal areas. According to the screening report the proposed area falls within very high sensitivity of terrestrial biodiversity theme sensitivity refer to figure 30.

While prospecting, about 0,3 hectares of vegetation will be cleared, care will be made to prevent disturbing or relocating any on-site protected species that can be identified. The cleared area with vegetation will be rehabilitated per drill site. Though prospecting activities are of a low impact. Drilling will be conducted only on the heavily modified areas of the farm to prevent unnecessary disturbance to sensitive areas. The proposed boreholes are temporary and can be shifted based on the sensitivity of the area. Rehabilitation will take place on each drill site as drilling activities commences, an ECO will be appointed to overlook the drilling activities.

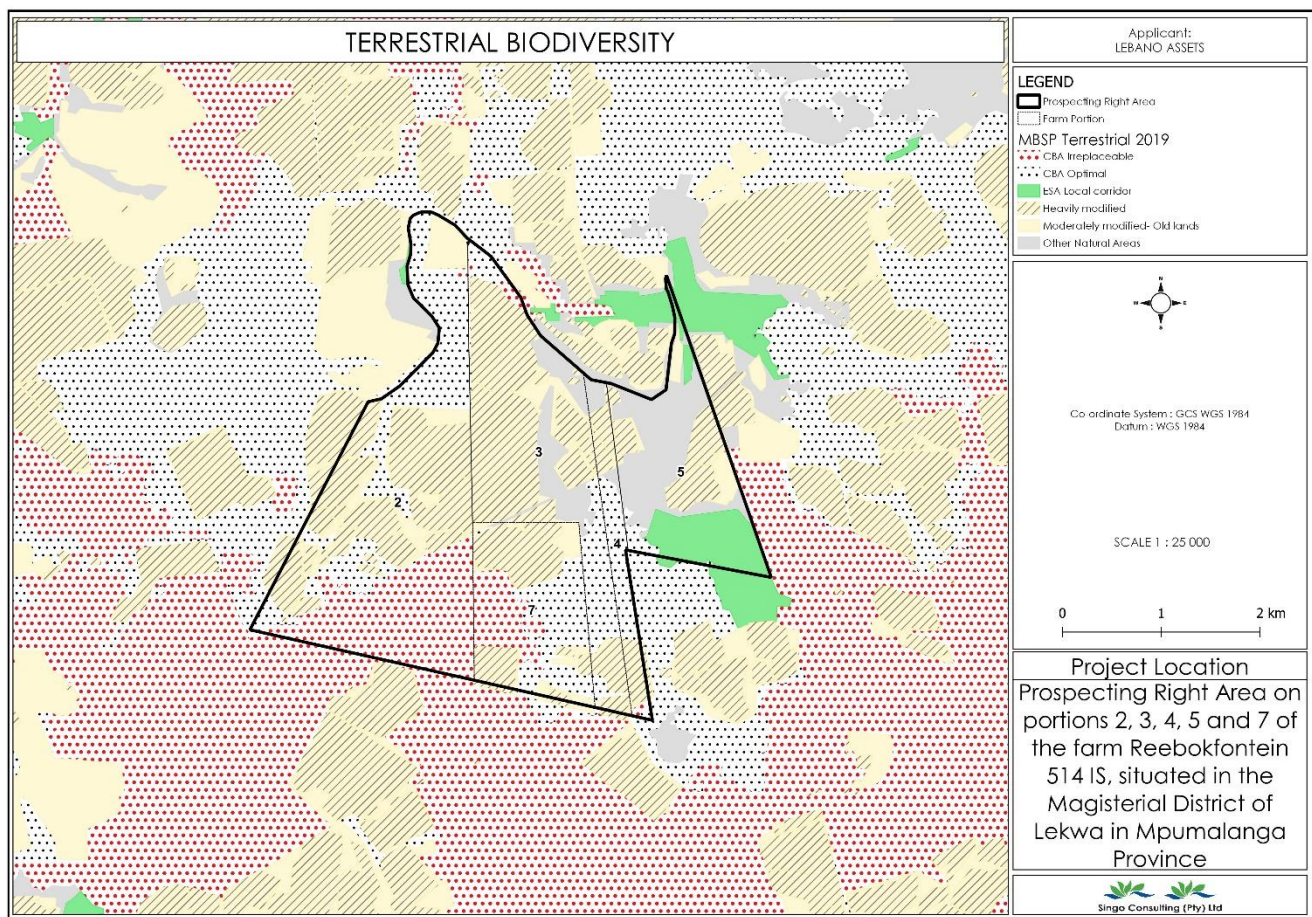


Figure 32: Terrestrial Biodiversity map of the proposed project area (Singo GIS, 2023)

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

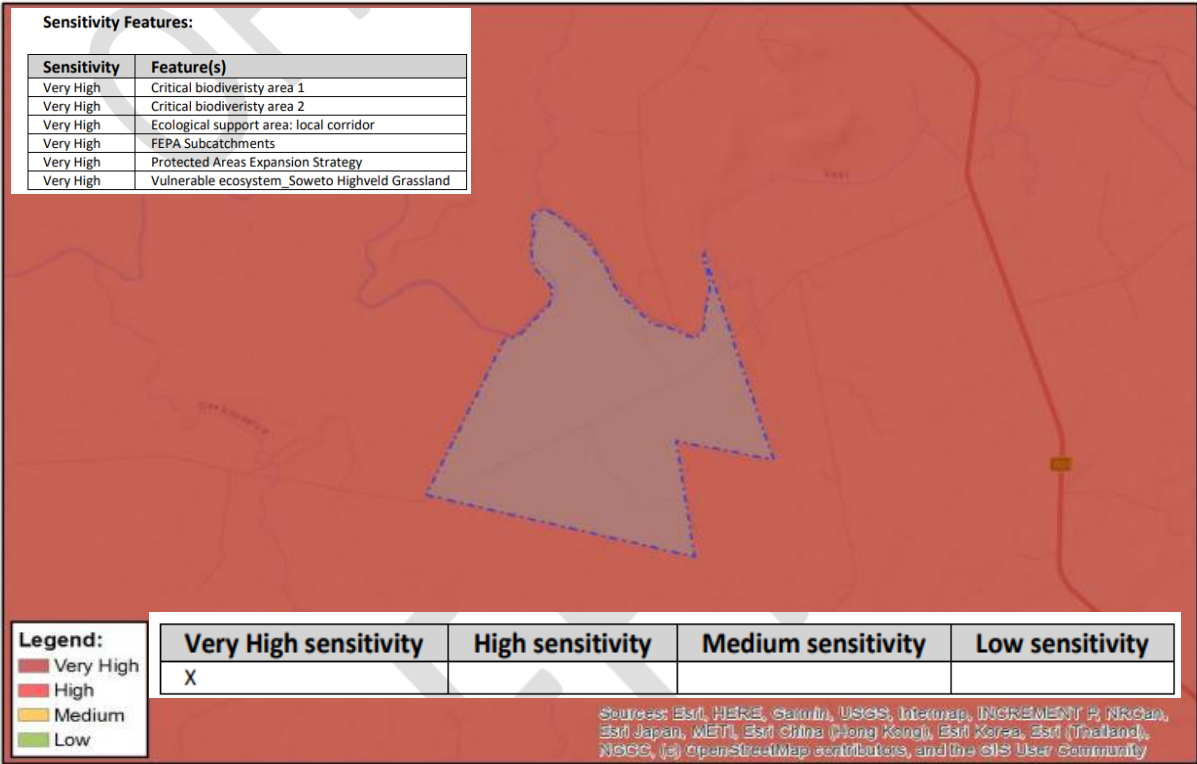


Figure 33: Terrestrial Biodiversity theme sensitivity map (Singo GIS, 2023)

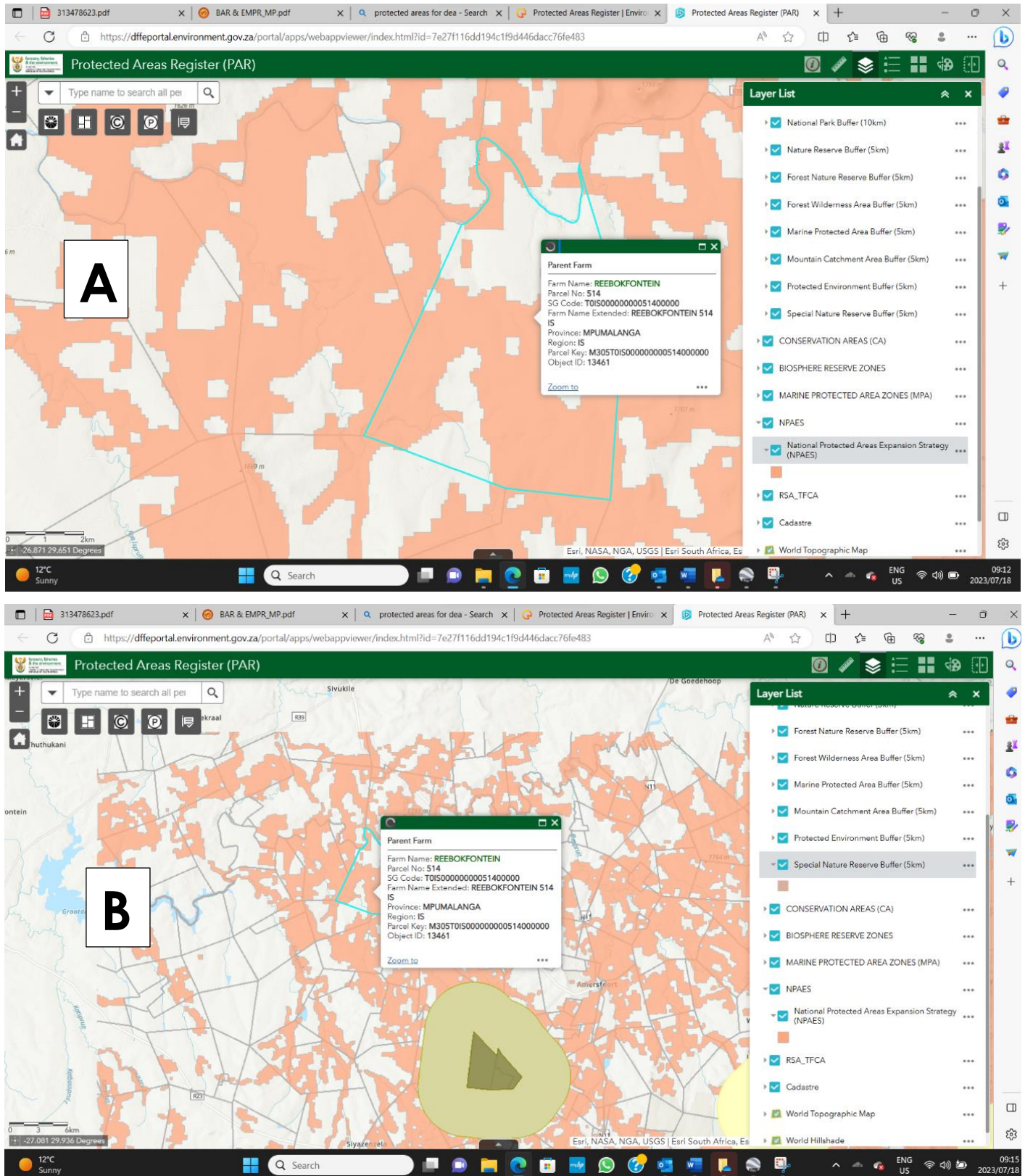


Figure 34: Protected Area Online Registry (Singo Consulting, 2023)

According to DFFE online registry, the proposed prospecting area falls within [National Protected Area Expansion Strategy \(NPAES\)](#) means South Africa's national strategy for expansion of the protected area network, led by the National Department responsible for environmental affairs and developed in collaboration with national and provincial conservation authorities. The NPAES sets targets for protected area expansion, provides maps of the most important areas for protected area expansion,

and makes recommendations on mechanisms for protected area expansion. Focus areas for protected area expansion are identified in the NPAES. They are large, intact, unfragmented areas of high importance for land-based protected area expansion, suitable for the creation or expansion of large, protected areas. Drilling will not take place on an area affected by NPAES. Figure 34(B) demonstrates that a wetland must be considered, hence a 100m buffer must be provided within the planned wetland for protection.

HERITAGE RESOURCES

Heritage resources such as graves are to be expected in the proposed prospecting right area as indicated by the screening report which was compiled on the 26th of May 2023 on the proposed prospecting area, the area shows a high sensitivity of Archaeological and cultural heritage theme in most of the central parts of the proposed project area. Some heritage sites may occur in thick clumps of vegetation while others may lie below the surface of the earth and may only be exposed once prospecting activities commence. Should, however, any heritage resources of significance be exposed during the rather operational phase of the project, the South African Heritage Resources Authority (SAHRA) should be notified immediately, all development activities where the heritage site have been identified should be stopped, and an archaeologist accredited with the Association for Southern African Professional Archaeologist (ASAPA) should be notified to determine appropriate mitigation measures for the discovered finds. This may include obtaining the necessary certifications from SAHRA to conduct the required mitigation measures.



Figure 35: Graves in portion 7 (Singo Consulting, 2023)

SENSITIVE RECEPTORS

The proposed prospecting area is situated where the R23 traverses from the Standerton town to Greylingstad. Several sensitive receptors have been identified within the proposed Prospecting Right Application area; these include:

- Hanbase lodge
- Fencing.
- Farmhouses
- Wetland
- Graves

Each of these sensitive receptors is considered in the formulation of the technical management options/mitigation measures employed to minimise, reduce, and mitigate against potential impacts.

DMRE Ref: MP 30 /5 /1 /1 /2 /18178 PR
Add new comment Subscribe to: This post

CaseHeader	LocationInfo	Admin
------------	--------------	-------

Status: SUBMITTED

HeritageAuthority(s): SAHRA
MPHRA

Case Type: Section 38 (1) - Decision from Heritage Authority required

Development Type: Mining

ProposalDescription:
Lebano Assets (Pty) Ltd has applied for a Prospecting Right for prospecting of (Coal) commodity that may exist with extent of approximately 1518.270 Hectares on portions 2, 3,4, 5 and 7 of the farm Reebokfontein 514 is, situated in the Magisterial District of Lekwa in Mpumalanga Province within the application area, in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002, as amended) .

Expanded_Motivation:
Lebano Assets (Pty) Ltd has applied for a Prospecting Right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002, as amended) (MPRDA) for the prospecting of commodity (Coal) that may exist within the application area. The application area is located approximately 13.7 km south of Morgenzon in Mpumalanga and it covers an area of approximately 1 518.270Ha. The proposed prospecting programme will be completed within five (5) years.

ApplicationDate: Wednesday, August 16, 2023 - 08:34

CaseID: 22153

Applicants: Lebano Assets (Pty) Ltd

Consultants/Experts: Ndinannyi Kenneth

OtherReferences:

CaseReference	Department	ApplicationType	DeadlineDate
DMRE Ref: MP 30/5/1/1/2/18178 PR	Department of Mineral Resources - Mpumalanga	Prospecting Rights	19/09/2023

ReferenceList:

AdditionalDocuments

1.  BID Reebokfontain.pdf

Figure 36: SAHRA online consultation (Singo Consulting, 2023).

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

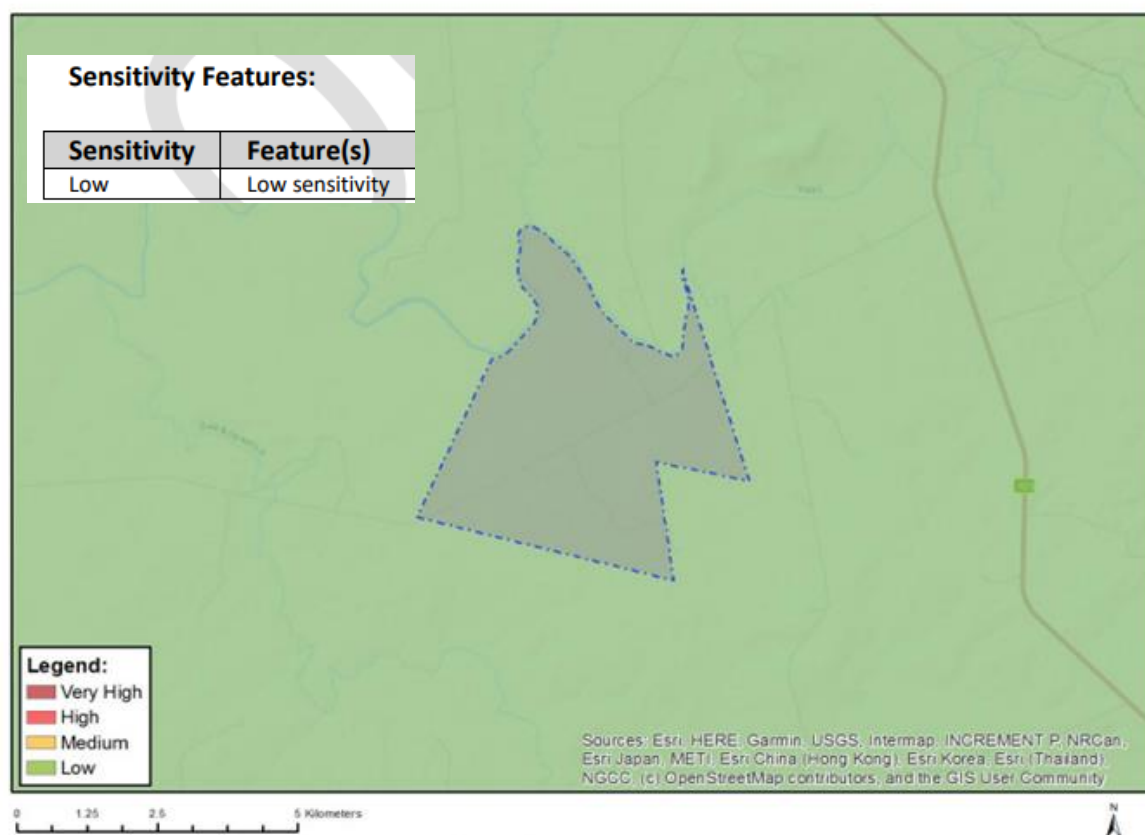


Figure 37: Relative Archeological theme sensitivity (Singo GIS, 2023)

6.4.2.7. ENVIRONMENTAL ASPECTS WHICH MAY REQUIRE PROTECTION AND/OR REMEDIATION

Several NFEPA Rivers and wetlands have been identified within the application area during the desktop assessment. In the absence of a national protocol, a generic 100m buffer should be established around the river and wetland FEPAs. This 100m buffer is considered adequate from a water quality perspective in providing functional filtering capacity to the river or wetland. This generic buffer has the potential to be reduced following a site-based level assessment and consideration of risk of proposed development and the proposed mitigation measure (NFEPA, 2011). Regulation 4 of GN704 of the NWA prohibits any underground or open cast mining, prospecting or any other operation or activity under or within the 1:150 year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, whichever is the greatest.

6.1.1. DESCRIPTION OF CURRENT LAND USES

The locality and extent of current land use within and around the prospecting right area is shown in the figure below. The

surrounding land uses are associated with agricultural activities (crop framing and grazing) and residential activities (Standerton area) which is about 15km away from the project.



Figure 38: Current Land use map of the proposed prospecting area (Singo Consulting, 2023).

DESCRIPTION OF SPECIFIC ENVIRONMENTAL FEATURES AND INFRASTRUCTURE ON SITE

The proposed prospecting area is a green field (in simple terms it is a project that is built from scratch, and it lacks constraints of prior work. There are existing buildings or infrastructure with grass, shrubs and few trees on site as they are mine houses that exist. From the desktop survey of the project areas together with the actual site assessment, there is a CBA optimal within the prospecting area as well sensitive freshwater bodies on site. Major infrastructure on site and around the site includes farmhouses and entrance road.

- Roads.
- Farmhouses; and
- Fencing.
- Windmill.

Drilling and Sighting of Boreholes

A 1500 m buffer from wetlands and a 100 m buffer from water bodies will both be kept in place. Eskom powerlines that were seen on the project area will have a 100m buffer around all other infrastructure (See **Figure 39**). In the planned project area, the exploration boreholes will be dug one at a time, avoiding buffer zones and protected vegetation if necessary. The drill site will be walled/fenced off, cleaned up, and conducted. Rehabilitation will come right after drilling. Following the drilling of a hole, the area is repaired, and the drilling crew continues to the following hole that is scheduled.

Up till all the holes are filled, this process will be repeated.

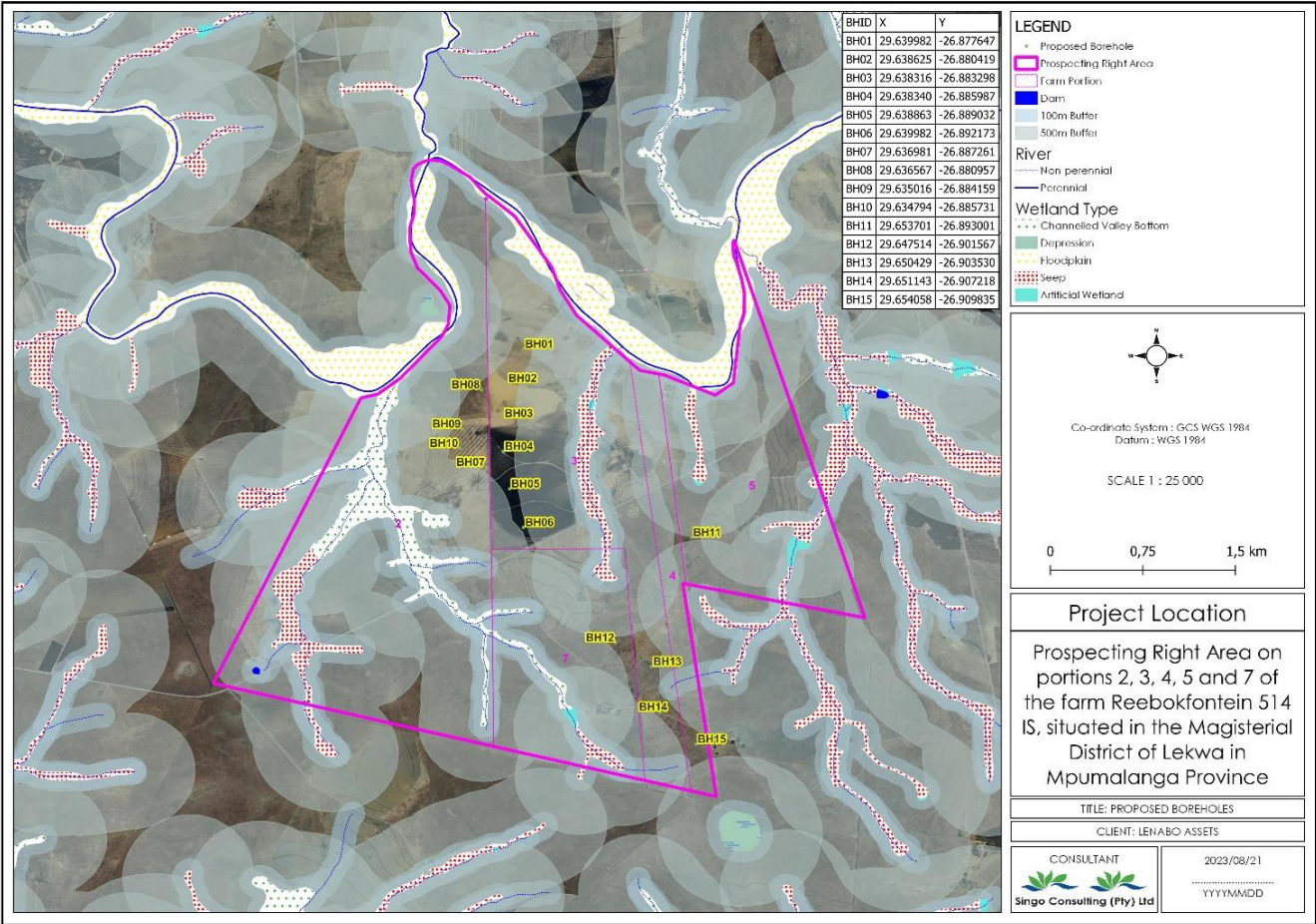


Figure 39: Proposed Boreholes (Singo GIS, 2023)

23. IMPACTS AND RISKS IDENTIFIED

In order to calculate the significance of an impact, probability, duration, extent and magnitude will be used. The pre- and post-mitigation scores will provide an indication of the extent to which an impact can be mitigated.

Due to the unavailability of historical geological data, both invasive and non-invasive prospecting techniques will be utilized. Activities that will require site access include Geological Field Mapping, Semi-Regional Geophysical Survey, Detailed Ground and Aerial Geophysical Survey, Prospecting Boreholes, Boreholes to confirm continuity of mineralization & potential deposit size and Resource Definition Drilling.

Potential impacts that may occur as a result of the proposed prospecting activities are:

- Job Creation (minimal);
- Clearance/Disturbance of vegetation;
- Compacting and contamination of Soils;
- Drilling impact on identified lithic scatters;
- Deterioration and damage to existing access roads and tracks;
- Safety and security risks to landowners and lawful occupiers;
- Interference with existing land uses;
- Generation and disposal of waste;
- Contamination of surface and ground water;
- Noise;
- Impact on faunal species;
- Dust;
- Erosion due to vegetation clearance;
- Impact on surface water features;
- Impact on groundwater;
- Loss of fossil heritage.

THE IMPACT ASSESSMENT METHODOLOGY

24. Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks

(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).

A. Criteria of assigning significance to potential impacts

The evaluation of impacts is conducted in terms of the criteria detailed in Table 15 to Table 20. The various environmental impacts and benefits of this project are discussed in terms of impact status, extent, duration, probability, and intensity. Impact significance is regarded as the sum of the impact extent, duration, probability and intensity and a numerical rating system has been applied to evaluate impact significance; therefore, an impact magnitude and significance rating is applied to rate each identified impact in terms of its overall magnitude and significance.

To adequately assess and evaluate the impacts and benefits associated with the project it was necessary to develop a methodology that would scientifically achieve this and to reduce the subjectivity involved in making such evaluations. To enable informed decision-making, it is necessary to assess all legal requirements and clearly defined criteria in order to accurately determine the significance of the predicted impact or benefit on the surrounding natural and social environment.

B. Impact Status

The nature or status of the impact is determined by the conditions of the environment prior to construction and operation. A discussion on the nature of the impact will include a description of what causes the effect, what will be affected and how it will be affected. The nature of the impact can be described as negative, positive or neutral.

Table 9: Status of Impact.

RATING	DESCRIPTION	QUANTITATIVE RATING
Positive	A benefit to the receiving environment.	P
Neutral	No cost or benefit to the receiving environment.	-
Negative	A cost to the receiving environment.	N

C. Impact Extent

The extent of an impact is considered as to whether impacts are either limited in extent or if it affects a wide area or group of people. Impact extent can be site specific (within the boundaries of the development area), local, regional or national and/or international.

Table 10: Extent of Impact.

RATING	DESCRIPTION	QUANTITATIVE RATING
Low	Site Specific; Occurs within the site boundary.	1
Medium	Local; Extends beyond the site boundary; Affects the immediate surrounding environment (i.e. up to 15 km from the Project Site boundary).	2
High	Regional; Extends far beyond the site boundary; Widespread effect (i.e. 15 km and more from the Project Site boundary).	3
Very High	National and/or international; Extends far beyond the site boundary; Widespread effect.	4

D. Impact Duration

The duration of the impact refers to the time scale of the impact or benefit.

Table 11: Duration of Impact.

RATING	DESCRIPTION	QUANTITATIVE RATING
Low	Short term; Quickly reversible; Less than the project lifespan; 0 – 15 years.	1
Medium	Medium term; Reversible over time; Approximate lifespan of the project; 15 – 17 years.	2
High	Long term; Permanent; Extends beyond the decommissioning phase; >17 years.	3

E. Impact Probability

The probability of the impact describes the likelihood of the impact actually occurring.

Table 12: Probability of impact.

RATING	DESCRIPTION	QUANTITATIVE RATING
Improbable	Possibility of the impact materialising is negligible; Chance of occurrence <10%.	1
Probable	Possibility that the impact will materialise is likely; Chance of occurrence 10 – 49.9%.	2
Highly Probable	It is expected that the impact will occur; Chance of occurrence 50 – 90%.	3
Definite	Impact will occur regardless of any prevention measures; Chance of occurrence >90%.	4
Definite and Cumulative	Impact will occur regardless of any prevention measures; Chance of occurrence >90% and is likely to result in cumulative impacts	15

F. Impact Intensity

The intensity of the impact is determined to quantify the magnitude of the impacts and benefits associated with the proposed project.

Table 13: Intensity of Impact.

RATING	DESCRIPTION	QUANTITATIVE RATING
Maximum Benefit	Where natural, cultural and / or social functions or processes are positively affected resulting in the maximum possible and permanent benefit.	+ 15
Significant Benefit	Where natural, cultural and / or social functions or processes are altered to the extent that it will result in temporary but significant benefit.	+ 4
Beneficial	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a modified, beneficial way.	+ 3
Minor Benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally benefited.	+ 2
Negligible Benefit	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly benefited.	+ 1
RATING	DESCRIPTION	QUANTITATIVE RATING
Neutral	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are not affected.	0
Negligible	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are negligibly affected	- 1
Minor	Where the impact affects the environment in such a way that natural, cultural and / or social functions or processes are only marginally affected.	- 2

Average	Where the affected environment is altered but natural, cultural and / or social functions or processes continue, albeit in a modified way.	- 3
Severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will temporarily cease.	- 4
Very Severe	Where natural, cultural and / or social functions or processes are altered to the extent that it will permanently cease.	- 15

G. Impact Significance

The impact magnitude and significance rating is utilised to rate each identified impact in terms of its overall magnitude and significance.

Table 14: Impact Magnitude and Significance Rating.

IMPACT	RATING	DESCRIPTION	QUANTITATIVE RATING
Positive	High	Of the highest positive order possible within the bounds of impacts that could occur.	+ 12 – 16
	Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. Other means of achieving this benefit are approximately equal in time, cost and effort.	+ 6 – 11
IMPACT	RATING	DESCRIPTION	QUANTITATIVE RATING
	Low	Impacts is of a low order and therefore likely to have a limited effect. Alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time consuming.	+ 1 – 15
No Impact	No Impact	Zero impact.	0

Negative	Low	Impact is of a low order and therefore likely to have little real effect. In the case of adverse impacts, mitigation is either easily achieved or little will be required, or both. Social, cultural, and economic activities of communities can continue unchanged.	- 1 – 15
	Medium	Impact is real, but not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of adverse impacts, mitigation is both feasible and fairly possible. Social cultural and economic activities of communities are changed but can be continued (albeit in a different form). Modification of the project design or alternative action may be required.	- 6 – 11
	High	Of the highest order possible within the bounds of impacts that could occur. In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or a combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt.	- 12 - 16

25. THE POSITIVE AND NEGATIVE IMPACTS THAT THE PROPOSED ACTIVITY 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)

The proposed prospecting area is targeted as, historically, several coal occurrences are known in the area, and number of these have been exploited for coal in the past (e.g. SASOL Mine 156 km to the NE of the application area. The site is therefore regarded as the preferred site and alternative sites are not considered.

H. Potential impact on heritage resources

No graves have been identified through desktop investigations. However, they could possibly be identified when invasive prospecting activities take place. Though a Heritage Impact Assessment was not undertaken as part of the development of the Environmental Management Programme, these will be of heritage and/or archaeological value.

There is no potential for the presence of stone kraals based on the past studies in the surrounding areas. It is anticipated that these features might not have heritage and / or archaeological value.

Potential heritage impact will only occur once drill sites have been identified and on-site activities commence, and it is therefore recommended that the Heritage Impact Assessment only be undertaken prior to these planned activities.

The Heritage Impact Assessment will be conducted over identified localised drill sites to identify any cultural, heritage and or archaeological features which may be impacted on.

The fact that the prospecting activities will be undertaken in a phased approach will provide the opportunity to the prospecting team to demarcate areas of cultural and/or heritage significance (such as graves and stone kraals). With the early identification of these, the impact on these will be avoided.

I. Potential impacts on communities, individuals or competing land uses in close proximity

The following impacts are regarded as community impacts:

- o Potential water and soil pollution resulting from chemical spills and soil erosion,
- o Noise due to the undertaking drilling machines;
- o Poor access control resulting in impacts on cattle movement, breeding and grazing practices;
- o Influx of persons (job seekers) to site because of increased activity and the possible resultant increase in opportunistic crime; and Visual Impact

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.

J. Water quality and availability

There is one major perennial river (Rietspruit river) and a water body (dam) on site. Possible pollution sources include stockpiled soil and all areas cleared of vegetation. The eroded soil particles may be carried by storm water to these fresh water bodies which will result in an increase in the Total Suspended Solids (TSS) and Total Dissolved Solids (TDS) of the water courses. The storage of dangerous goods, temporary ablution facilities and discharge of drill fluids may also lead to surface water pollution if not managed appropriately.

Limited amounts of dangerous goods (fuel, oil and lubricants) will be stored on site. The transportation, handling and storage of such materials may result in spills and further water quality impacts in the events of spills when carried by storm water to the water courses. This impact is also regarded as a cumulative impact due to the potential contribution to water quality deterioration of the river systems if not managed appropriately.

K. Influx of persons resulting in increased crime rates

The potential impacts of an increase in crime rates associated with an influx of unemployed persons travelling to mine sites seeking employment may occur.

L. Visual impact

The general characteristics of the site and that of the surrounding area are regarded to be that of "wilderness" and prospecting activities may result in localised visual impacts.

M. Positive Impacts (Advantage)

While no significant short term positive impacts are associated with the prospecting activities, in the event that a viable coal reserve is confirmed and pending the outcome of a detailed social & environmental impact assessment process, positive socio-economic benefits must be investigated and optimized.

26. THE POSSIBLE MITIGATION MEASURES THAT COULD BE APPLIED AND THE LEVEL OF RISK

The following sections provide a description and assessment of the mitigation measures for each potential impact identified in the impact assessment process. The impact scores below are reflective of the impacts post the implementation of mitigation measures. A second score indicating the final significance of each potential impact is also reflected below. This score indicates the degree of potential loss of irreplaceable resources, the cumulative nature of the impact, as well as the degree of public concern regarding the impact. It should be noted that this report will be made available to I&AP's for review and comment and their comments and concerns will be addressed in the final report to be submitted to the DMR for adjudication. Furthermore, it should be noted that the impact scores themselves will include the results of the aforementioned public response and comment. The results of the public consultation will be used to update the impact scores upon completion of the public review period, where after the finalised report will be submitted to the DMR for adjudication.

The following mitigation types have been associated with the potential impacts identified:

- Avoid and control through implementation of EMPr mitigation measures (e.g. speed limit (40 km/h) enforcement, vehicle maintenance);
- Avoidance and control through preventative measures (e.g. site security, code of conduct);
- Remedy through application of mitigation measures in EMPr;
- Avoid and control through implementation of preventative measures (e.g. monitoring, communication with landowners, emergency response procedures);

- Avoid through implementation of preventative measures (e.g. consultation and communication);
- Avoid and remedy impacts and risks to the community through ongoing communication with the community. In this regard, quarterly community meetings shall be held with the affected communities.
- Avoid through implementation of suitable progressive rehabilitation and soil management;
- Avoid and control through implementation of EMPr mitigation measures (e.g. Spill prevention, Hydrocarbon Storage);
- Avoid through preventative measures (e.g. bunding, spill kits);
- No invasive prospecting activities to be undertaken within 100m of a watercourse.
- Should any watercourse be affected, then the necessary water use licences should be obtained from the Department of Water and Sanitation.
- No ablution of site laydown areas is to be located within 100m of a watercourse.
- Where shallow aquifers are encountered, a survey of the drinking water/ livestock watering boreholes should be undertaken (within 15km of the prospecting borehole sites). A detailed groundwater monitoring programme should be developed for these drinking water/ livestock watering boreholes and pre- and post-prospecting water quality samples should be taken.
- Where drinking water/ livestock watering boreholes are to be affected then the advice of a Hydrogeologist should be sought with regards to the need for plugging and casing of the prospecting boreholes.
- Remedy through clean-up and waste disposal; and
- Avoid and control through implementation of preventative measures (e.g. location of toilets, spill prevention, waste management).

27.MOTIVATION WHERE NO ALTERNATIVE SITES WERE CONSIDERED

The proposed prospecting area is targeted as, historically, several coal occurrences are known in the area, and number of these have been exploited for coal in the past. The site is therefore regarded as the preferred site and alternative sites are not considered.

28. STATEMENT MOTIVATING THE ALTERNATIVE DEVELOPMENT LOCATION WITHIN THE OVERALL SITE

(Provide a statement motivating the final site layout that is proposed)

As is clear from the information provided, each of the phases is dependent on the results of the preceding phase. The location and extent of possible drilling will be determined based on information derived from the desktop study. Drill sites will be selected to avoid known heritage features and water courses where practicable.

29. FULL DESCRIPTION OF THE PROCESS UNDERTAKEN TO IDENTIFY, ASSESS AND RANK THE IMPACTS AND RISKS THE ACTIVITY WILL IMPOSE ON THE PREFERRED SITE (IN RESPECT OF THE FINAL SITE LAYOUT PLAN) THROUGH THE LIFE OF THE ACTIVITY

(Including (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process and (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures.)

To identify the potential impacts associated with the proposed prospecting activities the following steps were undertaken:

The stakeholder consultation process is currently undertaken in a manner to be interactive, providing landowners and identified stakeholders with the opportunity to provide input into the project. This is a key focus, as the local residence have capabilities of providing site specific information, which may not be available in desktop research material. Stakeholders are requested (as part of the BID) to provide their views on the project and any potential concerns which they may have. All comments and concerns will be captured and formulated into the impact assessment.

A detailed desktop investigation was undertaken to determine the environmental setting in which the project is located. Based on the desktop investigations various resources were used to determine the significance and sensitivity of the various environmental considerations. The desktop investigation involved the use of:

- ☐ South African National Biodiversity Institute (SANBI) Biodiversity Geographic Database LUDS system;
- ☐ Geographic Information System base maps;
- ☐ Department of Water Affairs information documents such as the (ISP and Groundwater Vulnerability Reports);
- ☐ Municipal Integrated Development Plan;
- ☐ Municipal Strategic Development Framework; etc.

A site visit was undertaken on 23 June 2020. This site visit was utilized to ensure that the information gathered as part of the desktop investigation reflects the status of the land.

The rating of the identified impacts was undertaken in a quantitative manner as provided from the Impact

Ratings. The ratings are undertaken in a manner to calculate the significance of each of the impacts. The EAP also assesses the outcomes of the calculation to determine whether the outcome reflects the perceived and actual views.

The identification of management measures is done based on the significance of the impacts and measures that have been considered appropriate and successful, specifically as Best Practical and Economical Options.

30.IMPACT ASSESSMENT OF EACH IDENTIFIED POTENTIALLY SIGNIFICANT IMPACT AND RISK

Table 15: Impact Assessment Summary.

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECT S AFFECTED	PHASE In which impact is anticipated	SIGNIFICANCE if not mitigated	MITIGATION TYPE	SIGNIFICANCE if mitigated
(E.g. For prospecting – drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc...etc...etc	(Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination,		(e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)	Pos High (+12-16), Pos Medium (+6 – 11), Pos Low (+1-15), No impact (0), Neg Low (-1-15), Neg Medium (-6-11), Neg High (-12-16)	(modify, remedy, control, or stop) through (e.g. noise control measures, stormwater control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method. Control through noise control	Pos High (+12-16), Pos Medium (+6 – 11), Pos Low (+1-15), No impact (0), Neg Low (-1-15), Neg Medium (-6-11), Neg High (-12-16)
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.)	air pollution etc....etc...)				Control through management and monitoring through rehabilitation..	
Ground / Airborne Surveys	Poor access control	Loss of cattle	Phase 1	15	Access control measures Consultation with landowner	15
Data collection & assessment	None	Not applicable	Phase 2	0	No mitigation required	0
Data assessment	None	Not applicable	Phase 2	0	No mitigation required	0
Site Camp establishment	None	Not applicable	Phase 3	0	No mitigation required	0
Drilling	Noise	Animals and people	Prospecting Phase3	7	Noise Control. Ensure vehicles and equipment and	15

					maintained. Silencers should be fitted on all engines.	
Drilling	Surface Disturbance	Animals, Environment	Prospecting Phase 3	10	Rehabilitate each site as soon as the drilling is completed. Avoid significant vegetation such as trees and large shrubs. Raised blade clearing will be conducted to minimize disturbance and aid rehabilitation efforts. Fire emergency procedure will be developed to contain and minimise destruction of flora and faunal habitat which may result from fire.	7
Driving	Air pollution	Animals, people, Environment	Prospecting Phase 3	7	Establish EMPr procedures to minimise the generation of dust. Ensure vehicles drive slowly. Comply with traffic regulations. Keep to speed limits. Ensure compliance with the EMPr.	15

Drilling	Ground water pollution	Animals, people	Prospecting Phase 3	Medium	Establish EMP procedures to minimise hydrocarbon spills.	Low
Accommodation and Sitecamp	Solid Waste	Animals, people and environment	Prospecting Phase 3	Low	Ensure compliance with the EMP. Include in environmental awareness training. Workers will	Low
Access roads	Potential destruction of unknown heritage resources	Loss of Cultural and/or Heritage Significant	Phase 3	15	Prior to the establishment of access roads or drill pads, a heritage assessment will be conducted on the selecting drilling sites and access roads. It is anticipated that limited to no heritage resources will be found due to the areas altered and disturbed state	4
GIS & analytical desktop studies	None identified		Phase 4	0	No mitigation required	0

31.SUMMARY OF SPECIALIST REPORTS

(This summary must be completed if any specialist reports informed the impact assessment and final site layout process and must be in the following tabular form):-

Table 16: Summary of specialist reports.

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THAT HAVE BEEN INCLUDED IN THE EIA REPORT (Mark with an X where applicable)	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
N/A			
N/A			

32.ENVIRONMENTAL IMPACT STATEMENT

33.SUMMARY OF KEY FINDINGS

A summary of the key findings of the environmental impact assessment is outlined below.

The majority of the prospecting activities are non-invasive and hence will have very low to negligible environmental or social impact. The invasive activities that entail the drilling of approximately 10 prospectingholes will have a minimal environmental and social impact as each drill site will be confined to an area of 0.6hectares. This needs to be viewed in the context of the entire prospecting license area under application,which covers just 1 1518.270ha.

The proposed prospecting operation will not affect any existing alternative land uses on the property or on adjacent property or non-adjacent property. The following actions are subject to the proposed mitigationmeasures and require monitoring:

- The clearing of vegetation
- The storage of hydrocarbon-based materials on site
- On-site waste management
- The creation of roads/tracks
- The removal of storage and soil
- The traversing of vehicles through populated areas within the prospecting area
- Groundwater: Monitor the water quality of the boreholes
- Surface Water: Monitor water quality of the stream and stream flow

Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annualmonitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMRE.

34.FINAL SITE MAP

Provide a map at an appropriate scale which superimposes the proposed overall activity and its associated structuresand infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided,including buffers (See figure 37 below)

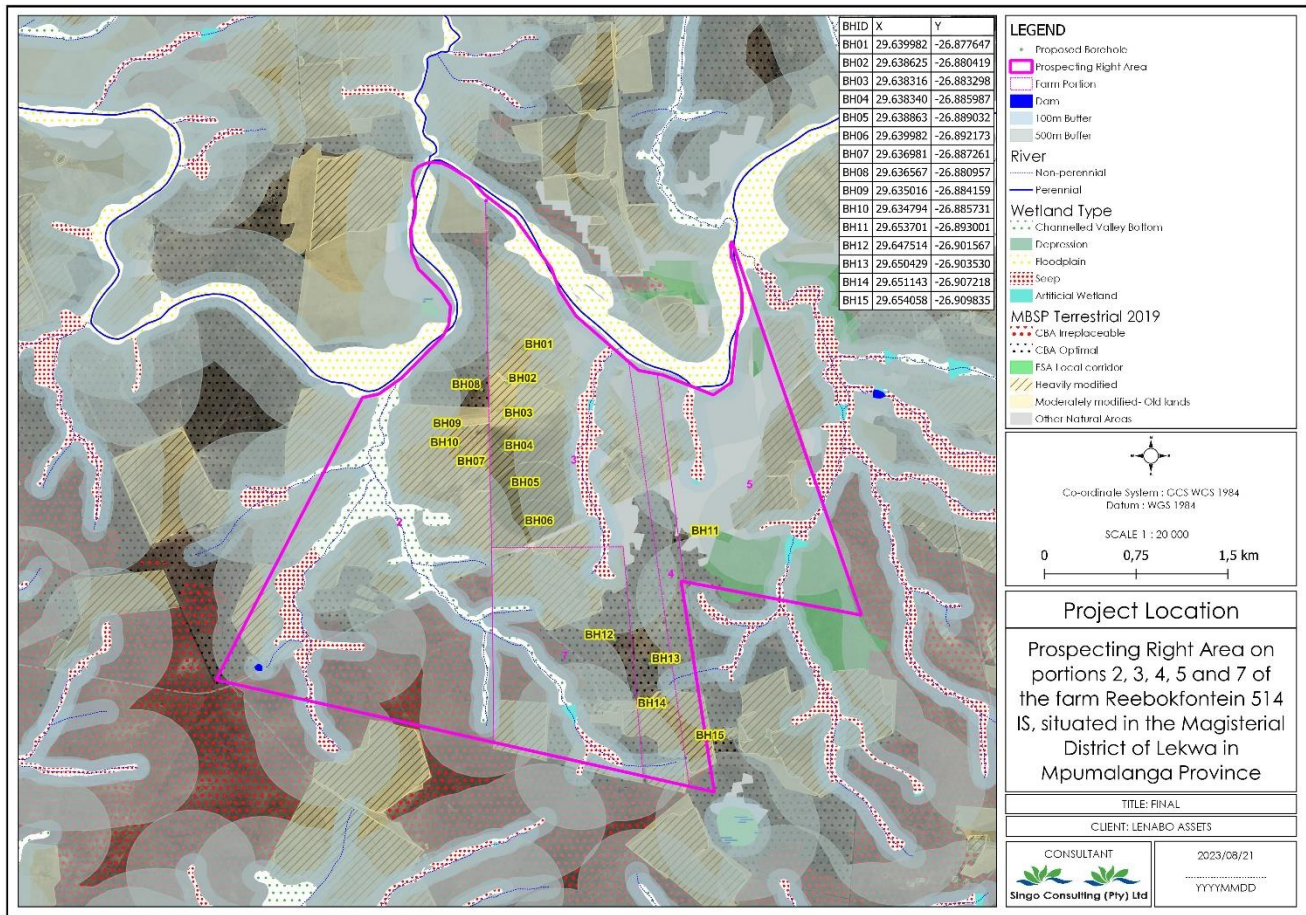


Figure 40: Final Map (Singo GIS, 2023)

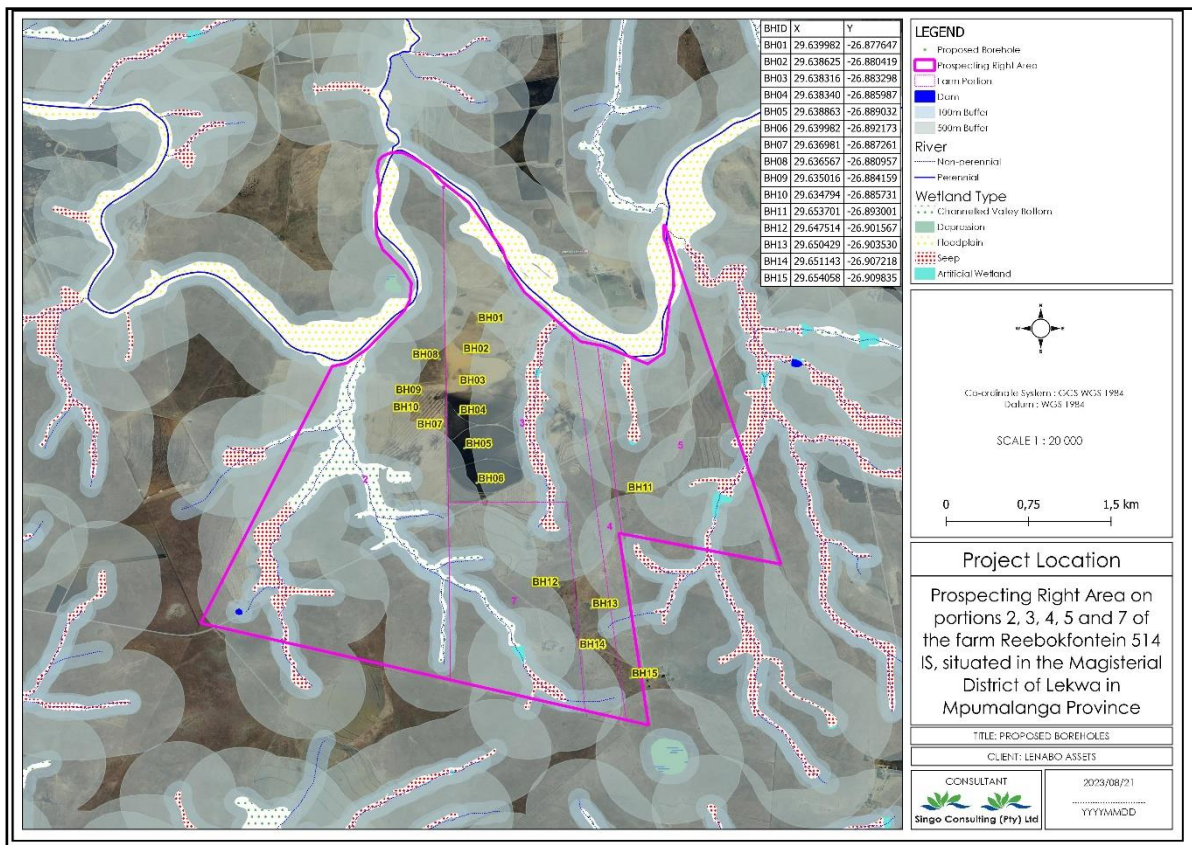


Figure 42: Proposed borehole map (Singo GIS, 2023)

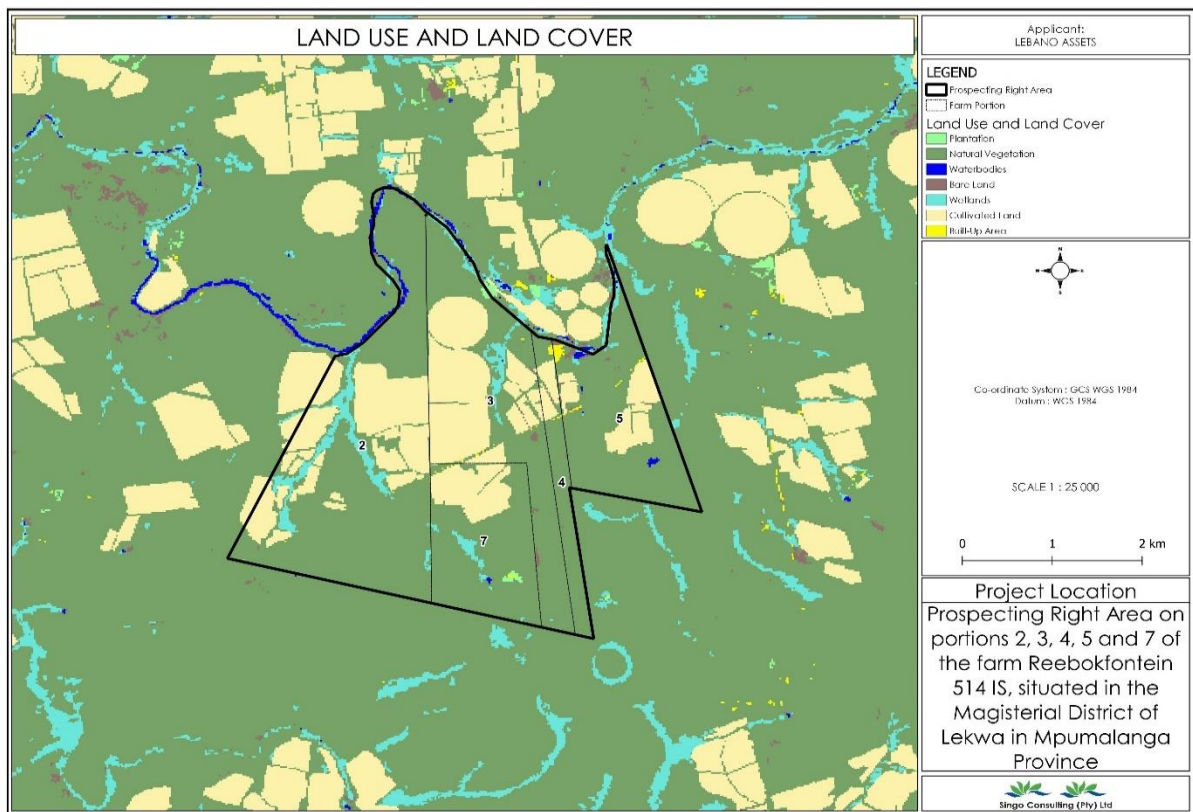


Figure 41 Current land use map of the proposed prospecting area. (Singo GIS, 2023)

35.SUMMARY OF POSITIVE AND NEGATIVE IMPLICATIONS AND RISKS

- Increased ambient noise levels resulting from drilling and increased traffic movement during allprospecting phases as well as drilling activities.
- Potential water and soil pollution impacts resulting from chemical (oil, diesel, hydraulic and drillingfluid) spills and soil erosion which may impact on environmental resources utilized by landowners.
- Potential water and soil pollution impacts resulting from chemical (oil, diesel, hydraulic and drillingfluid) spills and soil erosion which may impact on ecosystem functioning.
- Increased vehicle activity within the area resulting in the possible destruction and disturbance offauna and flora.
- Poor access control to farms which may impact on cattle movement, breeding and grazing practices.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increasein opportunistic crime.
- Potential visual impacts caused by drilling 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.

36.PROPOSED IMPACT MANAGEMENT OBJECTIVES AND OUTCOMES

Based on the assessment and where applicable the recommendations from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPras well as for inclusion as conditions of authorisation

The management objective is to minimise the socio-economic impact of the proposed Prospecting Right in terms of the socio-economic perceptions and expectations of I&APs. The outcome to be achieved is to lessen the impact through the following measures:

- Adhere to an open and transparent communication procedure with stakeholders at all times;
- Ensure that accurate information regarding the prospecting activities to be undertaken and the resultant lack of requirements for site access and labour is communicated to I&APs;
- Ensure that information is communicated in a manner which is understandable and accessible to I&APs;
- Enhance project benefits and minimise negative impacts through consultation with stakeholders;
- To limit interference with existing land uses as far as possible during prospecting;
- Limit the impact on the groundwater and surface water features through the implementation of the EMPr and the impact mitigation measures.
- To avoid damage to road infrastructure; and
- To maintain safety to pedestrians and motorists.

Monitoring of the required mitigation measures is to take place on site daily by the site geologist. Annual monitoring audits are to take place by an appointed independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMRE.

The company will operate on the principle that "prevention is better than cure" and so will institute procedures to reduce the risk of emergencies taking place. These will include ensuring that all contracts specify that the contractor is required to comply with all the environmental measures specified in this EMPr, environmental awareness training, on-going risk assessment and emergency preparedness.

All employees shall have the telephone numbers of emergency services, including the local ambulance and firefighting service. All employees must be made aware of procedures to be followed during the environmental awareness training course.

37.ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION

Maintain a minimum 100 m buffer from any infrastructure or dwelling; The Landowner should be engaged at least 1 month prior to any site activities being undertaken once drill sites are known; and a map detailing the drilling locations should be provided to the landowner as well as the DMRE prior to commencement of prospecting activities. The company should comply with all environmental legislation. Specific aspects to be adhered to from environmental legislation include; National Environmental Management Act, Act 107 of 1998 (NEMA), Minerals and Petroleum Resources Development Act, Act 28 of 2002 (MPRDA), National Water Act, Act 36 of 1998 (NWA) and Conservation of Agricultural Resources Act, Act No. 43 of 1983 (CARA).

38.DESCRPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

The following assumptions, uncertainties, and gaps in knowledge are applicable to this BAR:

Due to considerable time constraints allowed for the assessment of the impacts, and at the time of compiling the draft Basic Assessment Report and EMPr:

- The Stakeholder Consultation is not yet complete.
- Not all landowners were consulted with in person.
- Details regarding the presence and status of land claims showed that there is a land claim which was lodged on the said property.
- The baseline environment was compiled through desktop studies only and a limited field assessment conducted by the EAP and is subject to change based on the results of the public participation process. The possibility exists that the desktop data is outdated or incomplete. A limited duration site visit was undertaken during the PPP in order to verify the desktop data utilised. Furthermore, the description of the baseline environment will be further informed by the results of the public participation process.

39. REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED
A. REASONS WHY THE ACTIVITY SHOULD BE AUTHORISED OR NOT

The impacts on the environment can be mitigated through open communication with the community, landowners, implementation of the proposed EMPr provisions including the decommissioning, closure and rehabilitation plans, and limiting site access requirements. It is therefore the opinion of the EAP that the proposed activity should be authorised.

B. CONDITIONS THAT MUST BE INCLUDED IN THE AUTHORISATION

The company should comply with all environmental legislation. Maintain a minimum 100m buffer from any infrastructure or dwelling; the landowner should be engaged (re-consulted) at least 1 month prior to any site activities being undertaken once drill sites are known; a map detailing the drilling locations should be provided to the landowners as well as the DMR prior to commencement of prospecting activities. Record must be kept of the implementation of the EMPr measures and monitoring of the efficiency of the implemented measures; and a suitable closure plan must be submitted to show sufficiently provide for the avoidance, management and mitigation of environmental impacts associated with the decommissioning of the proposed activities.

C. PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The authorisation is required for the duration of the prospecting right which is an initial 15 years plus a potential to extend the right by an additional 3 years. Therefore, a total period of 18 years is required.

D. UNDERTAKING

It is confirmed that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the BAR and the EMPr.

E. FINANCIAL PROVISION

A financial provision of approximately, **R615409** which includes rehabilitation activities will be made available by Lebano Assets (Pty) Ltd. The applicant undertakes to provide financial provision through funding from the investors of Lebano Assets (Pty) Ltd.

CALCULATION OF THE QUANTUM

Applicant: **Lebano Assets**
 Evaluator: **Innocent Monama**

Ref No.: **DMRE REF: MP 30 /5 /1 /1 /2 /18178PR**
 Date: **20 August**

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	19	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	271	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	400	1	1	0
3	Rehabilitation of access roads	m2	200	49	0,1	1	980
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	471	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	257	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	542	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0	284292	1	1	0
7	Sealing of shafts adits and inclines	m3	0	146	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	189528	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	236054	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	685612	1	1	0
9	Rehabilitation of subsided areas	ha	0	158701	1	1	0
10	General surface rehabilitation	ha	0,3	150138	1	1	45041,4
11	River diversions	ha	0	150138	1	1	0
12	Fencing	m	0	171	1	1	0
13	Water management	ha	0	57087	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0,3	19980	0,1	1	599,4
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
Sub Total 1							46620,8

1	Preliminary and General	5594,496	weighting factor 2	5594,496
2	Contingencies	4662,08	1	4662,08
Subtotal 2				56877,38
VAT (15%)				8531,61
Grand Total				65409

Sign
Date

Innocent Monama
20/08/2023

Figure 43: Financial Provision (Singo Consulting, 2023)

F. EXPLAIN HOW THE AFORESAID AMOUNT WAS DERIVED

The drilling contractor will be responsible for rehabilitating the drill pad once the drilling activities have been completed at each prospecting hole. The financial guarantee was calculated using the DMR official financial quantum calculator. This information has been provided in the Prospecting Work Programme that was submitted to the DMRE.

G. CONFIRM THAT THIS AMOUNT CAN BE PROVIDED FOR FROM OPERATING EXPENDITURE

The amount to finance the prospecting activities will amount R65409,00. Financing will be sourced from the capital expenditure as planned by the company; this capital will come from the treasury of the company.

It should be noted that the current expenditure provided for in the Prospecting Works Programme does not include the calculated Financial Provision as included into this Basic Assessment, as these values were not available at the time of the submission of the Prospecting Works Programme. The provision for closure, should be updated into the Prospecting Works Programme prior to the decision by the DMR should this decision be positive.

SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

No additional information other than the appendices of this report has been included.

40.COMPLIANCE WITH THE PROVISIONS OF SECTIONS 24(4)(A) AND (B) READ WITHSECTION 24(3)(A) AND (7) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998) THE BAR REPORT MUST INCLUDE THE:

10.1 IMPACT ON THE SOCIO-ECONOMIC CONDITIONS OF ANY DIRECTLY AFFECTED PERSON

The potential impacts on the socio-economic conditions have the potential to include:

- Safety and security risks to landowners and lawful occupiers

The potential exists for a group of unfamiliar workers to enter the project area during the prospectingactivities. This impact could potentially affect the local communities; however the impact will be minimal as people on site will be limited to the Applicant, contractor and geologists for the topographical and geophysical surveys.

Interference with existing land uses

Access to the application area for the topographical and geophysical survey will be required which may interrupt the existing land uses, such as livestock grazing, residential developments and cropfarming. However, this impact will be minimal as no heavy equipment will be brought on site and it is of short duration.

The consultation process will allow directly affected parties to raise their concerns. Further to this, it must be noted that I&APs, including directly affected parties such as landowners, have the opportunity to review and comment on this report. The results of the public consultation have been included in the final report submitted to the department of mineral resources and energy for adjudication.

10.2IMPACT ON ANY NATIONAL ESTATE REFERRED TO IN SECTION 3(2) OF THE NATIONAL HERITAGE RESOURCES ACT

Notice of the proposed Prospecting Right Application has not been uploaded onto the South African Heritage

Resources Agency's (SAHRA) website, South African Heritage Information System (SAHRIS).

10.3 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**).

The proposed site was selected based on extensive research and also following on information from previous and current prospecting as well as mining activities around the area. The area is known for coal resources and there are mines currently mining nearby the application area. In terms of the technologies proposed, the proposed prospecting has been chosen based on the history and current state of coal in the area. The prospecting activities proposed in the Prospecting Works Programme (PWP) is dependent on the preceding phase as previously discussed, therefore no alternatives are indicated, but rather a phased approach of trusted prospecting techniques.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME

DETAILS OF THE EAP

(Confirm that the requirement for the provision of the details and expertise of the EAP are already included in PART A, section 1(a) herein as required).

Details of EAP are included in PART A section 1(a).

DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

(Confirm that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A, section (1)(h) herein as required).

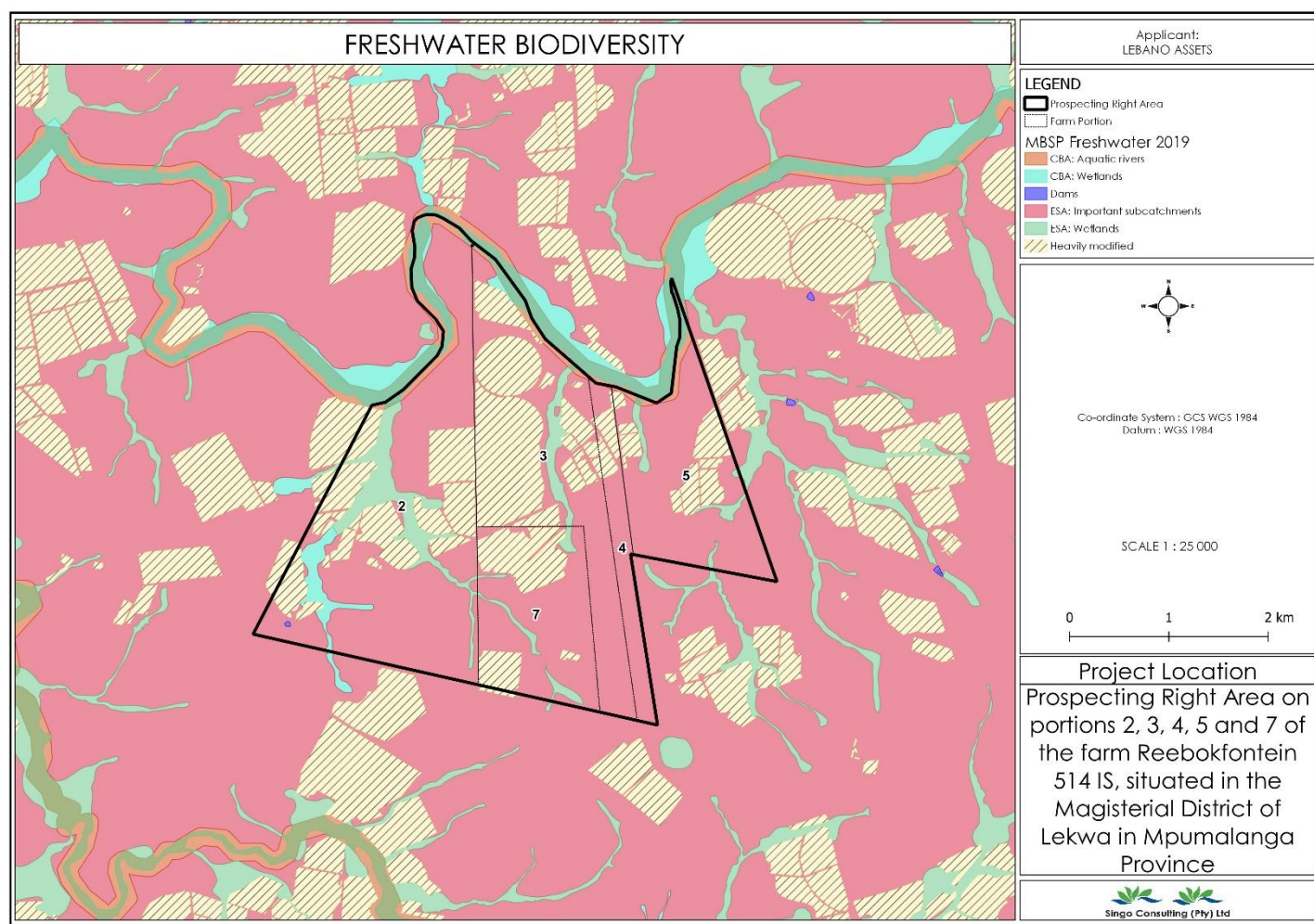
It is confirmed that the requirement to describe the aspects of the activity that are covered by the draft environmental management programme is already included in PART A SECTION (1)(h).

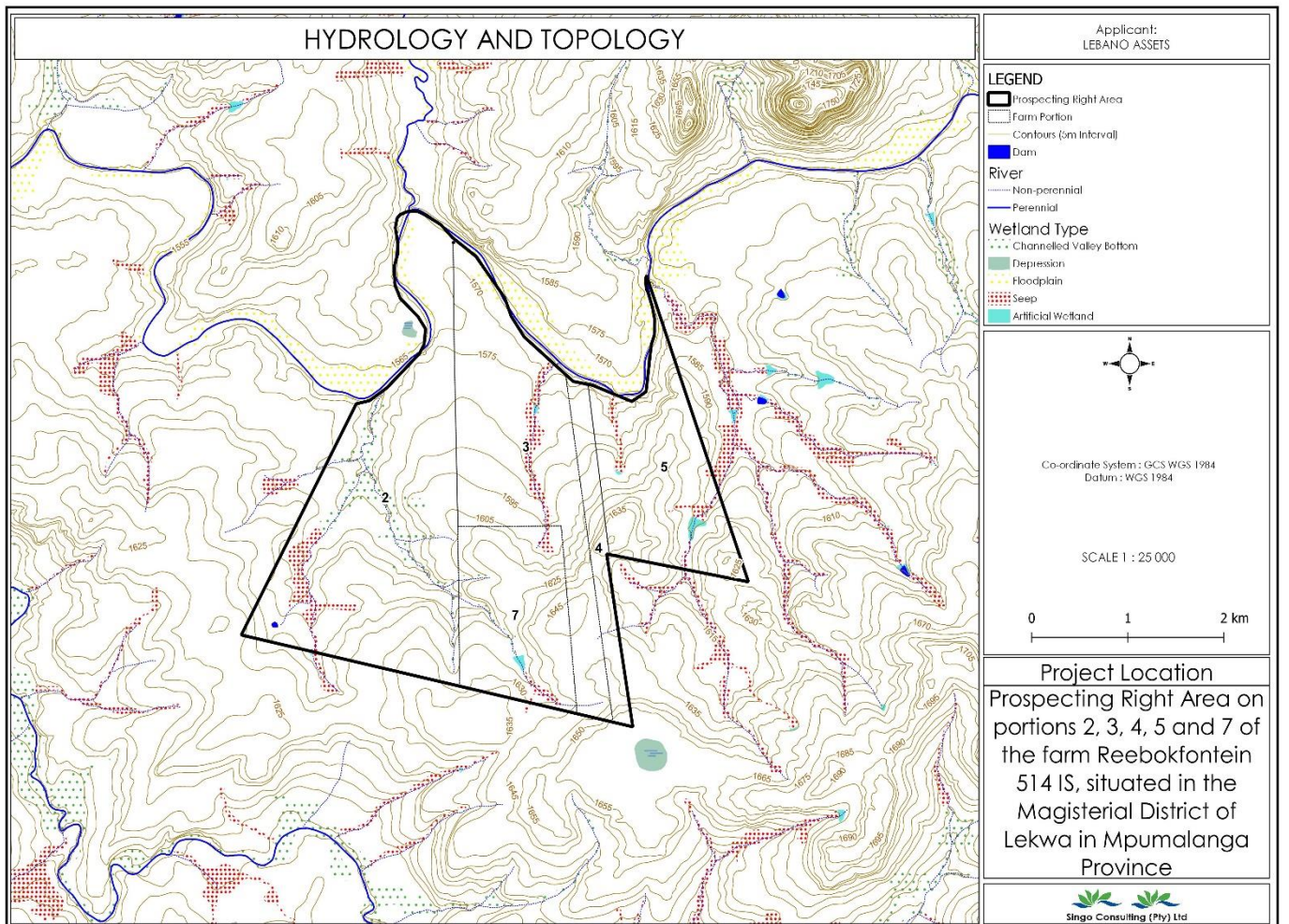
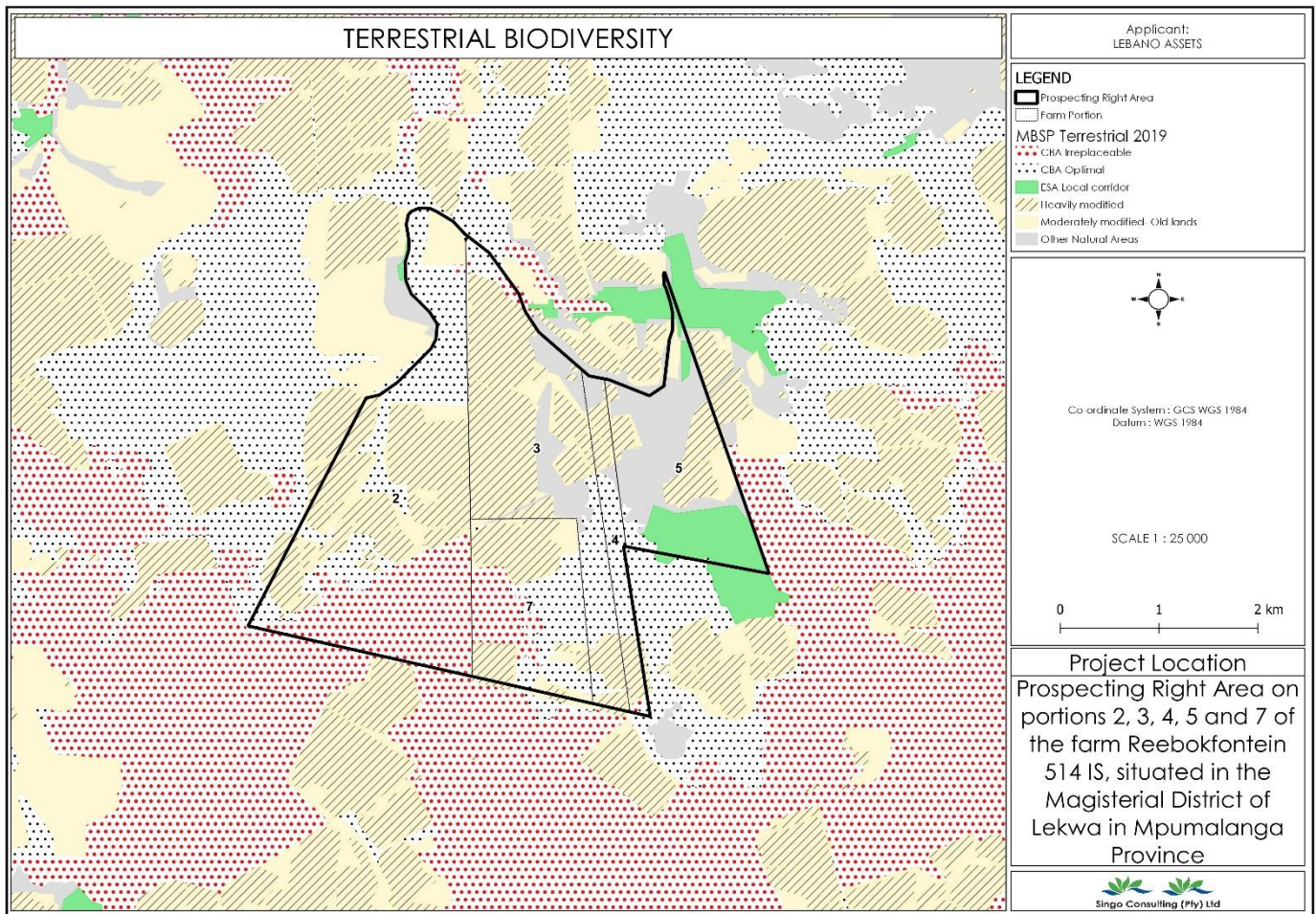
COMPOSITE MAP

*(Provide a map **(Attached as an Appendix)** at an appropriate scale which superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that any areas that should be avoided, including buffers)*

Prospecting is a temporal activity thus no permanent structures will be erected; however a general layout is enclosed.

Figure 44; Composite maps (Singo GIS, 2023)





DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

1. DETERMINATION OF CLOSURE OBJECTIVES

(Ensure that the closure objectives are informed by the type of environment described)

The following section details the goals and objectives that Lebano Assets (Pty) Ltd. will aim to achieve. It includes both a commitment to ensure legal compliance and then highlights the goals and objective for those impacts which are deemed most significant for prospecting.

A. VOLUMES AND RATE OF WATER USE REQUIRED FOR THE OPERATION

No water needed for this prospecting operation due to selected air flush method as opposed to water flush. However, in terms of Government Notices Regulation 399, the applicant can be allowed to abstract 715m³ of groundwater per hectare per annum from groundwater within the Quaternary Catchment. It is currently not anticipated that this quantity will be exceeded.

It is important to note that air flush method does not require the use of water

B. HAS A WATER USE LICENCE BEEN APPLIED FOR?

No prospecting activity will occur within identified watercourses. No water use licence has been applied for as part of this prospecting right application, however, it is anticipated that abstraction related water uses may be applicable. It is recommended that this be confirmed with the DWS prior to commencement of the invasive prospecting activities that require water and should any of the NWA Section 21 water uses become applicable, then the Applicant will need to apply for the relevant water uses from the Department of Water and Sanitation prior to undertaking such activities.

C. IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES

Table 17: Impacts to be mitigated.

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
Site clearance	Construction Operation	0.9 ha, short term and localized	<ul style="list-style-type: none"> • Demarcation of sensitive areas in consultation with relevant specialists and ECO; • Utilise local labour if possible; • Minimise removal of vegetation as far as possible; • Identification and relocation of protected species by a qualified ecologist (and application of the relevant biodiversity permits where required); • Minimize dust generation; • Limit vehicle access; • Implement alien vegetation management; • Ongoing identification of risks and impacts; • Emergency preparedness; • Monitoring and review; and • Avoid disturbance of fauna as much as possible, especially bird nesting sites. 	NEMA MPRDA NEMBA NEMAQA Dust regulations NWA DWS Best Practice Guidelines	Throughout Construction and operation

Site access	Construction Operation	31573,1518 ha, short term and localized	<input type="checkbox"/> All employees and visitors to the site must undergo a site induction which shall include basic environmental awareness and site specific environmental requirements (e.g. site sensitivities and relevant protocols/procedures). This induction should be presented or otherwise facilitated by the Contractors EO/Mine EO wherever possible.	NEMA OHS and MHSA	Throughout Construction and operation
--------------------	---------------------------	---	--	-------------------------	---

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> Landowners/lawful occupiers must be notified prior to accessing properties. A date and time that is suitable to landowners/lawful occupiers and is reasonable to the applicant should be negotiated and agreed upon. The number, identity of workers, work location and work to be done must be provided to the landowner/lawful occupier prior to going on site. Consideration must be taken by the applicant and/or contractors when on site not to interfere with the existing land uses and practices. 		

Establishment of site infrastructure	Construction	0.9 ha, short term and localized	<ul style="list-style-type: none"> • Minimise physical footprint of construction; • Ensure construction is consistent with occupational health and safety requirements; • Minimise vegetation clearance; • Ensure proper and adequate drainage; • Minimise waste and control waste disposal; • Fencing of all drill sites with security access control and warning signs; • Establish waste storage areas for recycling; • Ensure adequate containment of waste to prevent pollution; • Minimise dust generation; • Limit vehicle access to approved access roads; • Prepare contingency plans for spillage and fire risks. 	NEMA MPRDA NEMBA NEMAQA Dust regulations NWA DWS Best Practice Guidelines	Throughout Construction and operation
---	--------------	----------------------------------	--	---	---------------------------------------

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
------------	-------	-------------------------------	---------------------	---------------------------	--------------------------------

Storage of construction vehicles	Construction and Operation	0,6 ha, short term and localized	<ul style="list-style-type: none"> Any equipment that may leak, and does not have to be transported regularly, must be placed on watertight drip trays to catch any potential spillages of pollutants. The drip trays must be of a size that the equipment can be placed inside it; Drip trays must be cleaned regularly and shall not be allowed to overflow. All spilled hazardous substances must be collected and adequately disposed of at a suitably licensed facility; and Compacting of soil must be avoided as far as possible, and the use of heavy machinery must be restricted in areas outside of the proposed exploration sites to reduce the compaction of soils. 	NWA DWS BPG	Throughout Construction and operation
Transportation/ access to and from drill sites	Construction and Operation	0.9 ha, short term and localized	<ul style="list-style-type: none"> Where possible, drill sites should be located along existing access roads to reduce the requirement for additional access roads; Any new temporary access routes to a drill site should result in minimal disturbance to existing vegetation; Prior to accessing any portion of land, the Applicant must enter into formal written agreements with the affected landowner. This formal agreement should additionally stipulate landowner special conditions which would form a 	NEMA NEMBA NEMAQA Dust Regulations Road Traffic Act	Throughout Construction and operation

			legally binding agreement;		
--	--	--	----------------------------	--	--

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> • All farm gates must be closed immediately upon entry/exit; • Under no circumstances may the contractor damage any farm gates, fences, etc.; • On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic (where relevant); • All construction and vehicles using public roads must be in a roadworthy condition and their loads secured. They must adhere to the speed limits and all local, provincial and national regulations with regards to road safety and transport; • Damage caused to public roads as a result of the construction activities must be repaired in consultation with the relevant municipal authorities; and • All measures should be implemented to minimize the potential of dust generation. 		

Storage of hazardous substances	Construction and Operation	0,6 ha, short term and localized	<ul style="list-style-type: none"> All hazardous substances (e.g. fuel, grease, oil, brake fluid, hydraulic fluid) must be handled, stored and disposed of in a safe and responsible manner so as to prevent pollution of the environment or harm to people or animals. Appropriate measures must be implemented to prevent spillage and appropriate steps must be taken to prevent pollution in the event of a spill; and way that does not pose any danger of pollution even during times of high rainfall. 	NWA NEMWA DWAf BPG NEMA	Throughout Construction and operation
--	----------------------------	----------------------------------	--	-------------------------------------	---------------------------------------

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> Hazardous substances must be confined to specific and secured areas, and stored at all the time within bunded areas; Adequate spill prevention and clean-up procedures should be developed and implemented during the prospecting activities. Should any major spills of hazardous materials take place, such should be reported in terms of the Section 30 of the NEMA. 		

Waste management	Construction and Operation	Short-medium term, localized	<ul style="list-style-type: none"> Waste generated on site must be recycled as far as possible. Recyclable waste must not be stored on site for excessive periods to reduce risk of environmental contamination; Drill muds, formation water (if encountered), etc. would constitute waste and must be classified and ranked in terms of relevant legislation for correct disposal; and A Waste Management System must be implemented, and provide for adequate waste storage (in the form of enclosed containers) waste separation for recycling, and frequent removal of non-recyclable waste for permanent disposal at an appropriately licensed waste disposal facility. No waste material is to be disposed of on site. 	DWS Minimum requirements for waste disposal NEMWA	Throughout Construction and operation
Prospecting boreholes:	Construction and Operation Decommissioning	0,6 ha, short term	<ul style="list-style-type: none"> Vegetation clearing for prospecting sites should be kept to a minimum in order to reduce the disturbance footprint; Compaction of soil must be avoided as far as possible, and the use of heavy machinery must 	SANS 10103 ECA Noise Regulations NEMAQA	Throughout Construction and operation and decommissioning

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
------------	-------	-------------------------------	---------------------	---------------------------	--------------------------------

<p>15 sites , with a footprint of 0.9 ha each</p>			<p>be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils;</p> <ul style="list-style-type: none"> • All measures should be implemented to minimize the potential of dust generation; • Local residents should be notified of any potentially noisy activities or work and these activities should be undertaken at reasonable times of the day. These works should not take place at night or on weekends; • Noise attenuation on engines must be adequate, and the noisy activities must be restricted as far as is possible to times and locations whereby the potential for noise nuisance is reduced; • When working near to a potential sensitive area, the contractor must limit the number of simultaneous activities to the minimum; • Ensure proper storage of fuels; • On-site vehicles must be limited to approved access routes and areas on the site so as to minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic; • Workforce should be kept within defined boundaries and to agreed access routes. • No invasive prospecting activities to be undertaken within 100m of a watercourse. • Should any watercourse be affected, then the necessary water use licences should be 	<p>Dust Regulations NWA</p>	
---	--	--	---	---------------------------------	--

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>obtained from the Department of Water and Sanitation.</p> <ul style="list-style-type: none"> No ablution of site laydown areas is to be located within 100m of a watercourse. Where shallow aquifers are encountered, a survey of the drinking water/ livestock watering boreholes should be undertaken (within 15km of the prospecting borehole sites). A detailed groundwater monitoring programme should be developed for these drinking water/ livestock watering boreholes and pre- and post-prospecting water quality samples should be taken. Where drinking water/ livestock watering boreholes are to be affected, and where a pollution event occurs at a particular borehole, then the advice of a hydrogeologist should be sought with regards to the need for plugging and casing of the prospecting boreholes. 		
Prospecting	Construction and Operation	0,6 ha, short term	Workers must be easily identifiable by clothing and ID badges. Workers should carry with them, at all times a letter from the applicant stating their employment, title, role and manager contact details.	OHS and MHSA	Throughout Construction and operation
Resource definition drilling	Planning Phase	0,6 ha, short term	Local residents (landowners and directly adjacent landowners) should be notified of	MPRDA	Planning Phase

	Construction and Operation		any potentially noisy activities or work and these activities should be undertaken at reasonable	Regulations GN R1527 SANS 10103	Throughout Construction and operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation

			<p>times of the day. This work should not take place at night or on weekends;</p> <ul style="list-style-type: none"> • The contractor must attempt to restrict noisy activities as far as is possible to times and locations whereby the potential for noise nuisance is reduced; • Dust suppression methods must be applied when necessary to restrict the visual impact of dust emissions. • Any spills of hydrocarbons or fluids used during operation, must be cleaned up immediately; • An above ground drilling sump must be used to contain drilling mud in order to reduce surface and groundwater contamination. No earthen mud sumps are to be constructed and utilized; • No prospecting boreholes should be drilled in the immediate vicinity of existing private boreholes; • Soils in drilling areas where disturbances will be encountered must be stripped and stockpiled outside affected areas for use after completion of the drilling program. • Topsoil must be adequately stripped to the correct depth and stored separately from subsoils; • Cut of trench and berm must be constructed around the drill pad to prevent contaminated surface runoff from entering shallow aquifers and surrounding water resources, where required by the topography; • A liner should be placed over the drill pad and drip trays must be used in all areas where hydrocarbons are handled; 	<p>ECA Noise Regulations</p> <p>NEMAQA</p> <p>Dust Regulations</p> <p>NWA</p> <p>DWS BPG</p>	
--	--	--	---	--	--

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>minimize excessive environmental disturbance to the soil and vegetation on site, and to minimize disruption of traffic;</p> <ul style="list-style-type: none"> • Workforce should be kept within defined boundaries and to agreed access routes; • The designated competent authority (DMR) may, at the cost of the Applicant, appoint an independent and competent person to undertake borehole examination. • Should any chance finds be uncovered during the construction phase, these must be handled in accordance with the requirements of the National Heritage Resources Act, 1999 (Act 215 of 1999) (NHRA); and If a possible heritage site (including graves) or artefact is discovered during construction, all operations in the vicinity of the discovery should stop and a qualified specialist contracted to evaluate and recommend appropriate actions. Depending on the type of site that can include initiating a grave relocation process, documentation of structures or archaeological excavations. • Should fossil remains be discovered during any phase of construction, either on the surface or exposed by fresh excavations, the ECO responsible for these developments should be alerted immediately. Such discoveries ought to be protected and the ECO should alert SAHRA so that appropriate mitigation can be put into place. 		

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
Refuelling	Construction and Operation	Short term and localized	Refuelling may only take place within demarcated areas that is subject to appropriate spill prevention and containment measures refuelling	NWA DWS BPG	Throughout Construction and operation

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>and transfer of hazardous chemicals and other potentially hazardous substances must be carried out so as to minimize the potential for leakage and to prevent spillage onto the soil;</p> <ul style="list-style-type: none"> • Drip trays should be utilized in relevant locations (inlets, outlets, points of leakage, etc.) during transfer so as to prevent such spillage or leakage. Any accidental spillages must be contained and cleaned up promptly. 		

Maintenance and repair	Construction and Operation	Short term and localized	<ul style="list-style-type: none"> Trucks, machinery and equipment must be regularly serviced to ensure they are in proper working condition and to reduce risk of leaks. All leaks must be cleaned up immediately using spill kits or as per the emergency response plan. For large spills a hazardous materials specialist shall be utilized; Accidental hydrocarbon spillages must be reported immediately, and the affected soil should be removed, and rehabilitated or if this is not possible, disposed of at a suitably licenced waste disposal facility. 	NWA DWS BPG NEMA	Throughout Construction and operation
Borehole Closure	Decommissioning and Closure	Short term and localized	<ul style="list-style-type: none"> Where groundwater is encountered during drilling, all affected prospecting boreholes that will not be required for later monitoring or other useful purposes should be plugged and sealed with cement to prevent possible cross flow and contamination between aquifers; Cement and liquid concrete are hazardous to the natural environment on account of the very high pH of the material, and the chemicals contained 	NWA DWS BPG	Throughout Decommissioning and Closure

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
------------	-------	-------------------------------	---------------------	---------------------------	--------------------------------

			<p>therein. As a result, the contractor shall ensure that:</p> <ul style="list-style-type: none"> o Concrete shall not be mixed directly on the ground; o The visible remains of concrete, either solid, or from washings, shall be physically removed immediately and disposed of as waste, (Washing of visible signs into the ground is not acceptable); and o All excess aggregate shall also be removed. 		
Removal of surface infrastructure	Decommissioning	Short term and localized	<ul style="list-style-type: none"> • All infrastructure, equipment, and other items used during prospecting will be removed from the site. • Compaction of soil must be avoided as far as possible. The use of heavy machinery must be restricted in areas outside of the proposed prospecting sites to reduce the compaction of soils. 	MPRDA Rehab Plan	Decommissioning
Removal of waste	Decommissioning	Small scale and localized	<ul style="list-style-type: none"> • Any excess or waste material or chemicals, including drilling muds etc. must be removed from the site and must preferably be recycled (e.g. oil and other hydrocarbon waste products). Any waste materials or chemicals that cannot be recycled must be disposed of at a suitably licensed waste facility. 	NWA DWS BPG	Decommissioning
Rehabilitation	Rehabilitation	All disturbed areas	<ul style="list-style-type: none"> • Restoration and rehabilitation of disturbed areas must be implemented as soon as prospecting activities are completed; 	MPRDA Rehab Plan NEMA	Rehabilitation

Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<ul style="list-style-type: none"> Sites must be restored to the original condition with vegetation cover (where applicable) equalling the surrounding vegetation cover; All debris and contaminated soils must be removed and suitably disposed of; Contours and natural surrounding must be reformed; Natural drainage patterns must be restored; All surface infrastructure on site must be removed; Temporary access routes/roads must be suitably rehabilitated; and Sites must be monitored by the ECO (including relevant specialist's inputs if, necessary) for adequate rehabilitation until the desired rehabilitation objectives have been achieved. 		
Consultation	Planning Phase Construction and Operation	Medium term, local	<ul style="list-style-type: none"> Stakeholder engagement will continue throughout the prospecting activities to ensure the community and landowners are kept informed and allowed to raise issues. The Applicant shall attend applicable community meetings with the affected communities. Any issues raised will then be addressed through a grievance mechanism. 	NEMA OHS and MHSA	Planning Phase Throughout Construction and Operation

Monitoring	Post-Operational	All rehabilitated areas	The post-operational monitoring and management period following decommissioning of prospecting activities must be implemented by a suitable qualified independent party for a minimum of one (1)	MPRDA Rehab Plan	Post-operation
Activities	Phase	Size and Scale of Disturbance	Mitigation Measures	Compliance with Standards	Time Period for Implementation
			<p>year unless otherwise specified by the competent authority.</p> <p>The monitoring activities during this period will include but not be limited to:</p> <ul style="list-style-type: none"> • Biodiversity monitoring; and • Re-vegetation of disturbed areas where required. <p>Provision must be made to monitor any unforeseen impact that may arise as a result of the proposed prospecting activities and incorporated into post closure monitoring and management.</p>		

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
	<ul style="list-style-type: none"> Deterioration and damage to existing access roads and tracks; Dust generation; Clearance of vegetation; Invasion by alien species; 	Topography; Soil; Air Quality; Surface Water; Groundwater r; Transportatio n	Construction Operation	Avoid and control through implementation of EMPr mitigation measures (e.g. speed limit enforcement,	NEMA NEMBA Threatened or Protected Species (TOPS) regulations

D. IMPACT MANAGEMENT ACTIONS AND OUTCOMES

Table 17: Summary of Impact Management Actions and Outcomes.

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
Site clearance	<ul style="list-style-type: none">• Sedimentation• Erosion			vehicle maintenance)	NEMAQA Dust regulations NWA DWS best Practice Guidelines

Establishment of base camps and access	<ul style="list-style-type: none"> Interference with existing land uses Safety and security risks to landowners and lawful occupiers; Deterioration and damage to existing access roads and tracks; Dust generation; Clearance of vegetation; Pollution of soils Contamination on surface and ground 	<p>Topography;</p> <p>Landform;</p> <p>Soil disturbance;</p> <p>Fauna and Flora;</p> <p>Air Quality;</p> <p>Surface Water;</p> <p>Groundwater;</p> <p>Socioeconomic s</p>	Construction Operation	<p>Avoidance and control through preventative measures (e.g. communication with landowners, site access control)</p> <p>Remedy through application of mitigation measures in EMP</p>	<p>NEMA</p> <p>MPRD</p> <p>A</p> <p>NEMA</p> <p>A</p> <p>Threatened or Protected Species (TOPS) regulations</p> <p>NEMAQA</p> <p>Dust regulations</p> <p>NWA</p> <p>DWS best Practice guidelines</p>
--	---	---	---------------------------	--	--

Activity	Potential Impact	Aspects Affected	Phase	Mitigation Type	Standard to be Achieved
----------	------------------	------------------	-------	-----------------	-------------------------

Storage of construction vehicles	<ul style="list-style-type: none"> • Pollution of surface and groundwater resources from potential hydrocarbon spills; and • Compaction of soils 	Surface water; Groundwater; Soils.	Construction Operation	Avoid through implementation of EMPr mitigation measures (e.g. communication with landowners)	Protected Species (TOPS) regulations NEMAQA Dust regulations NWA DWS best Practice Guidelines
Transportation to and from drill sites	Soil compaction; Disturbance and Loss of fauna and flora; Wearing and tearing of existing roads; and Dust generation from increased traffic.	Soil disturbance; Fauna and Flora; Air quality.	Construction Operation	Avoid and control through implementation of EMPr mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	NEMA NEMBA CARA Threatened or Protected Species (TOPS) regulations NEMA; AQA Dust regulations NWA DWS best Practice Guidelines

Storage of hazardous substances	Potential hydrocarbon spills that could pollute surface and ground water resources.	Surface water; Groundwater r.	Construction Operation	Avoid and control through implementation of EMP mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	NEMA NEMBA NWA DWAFA best Practice Guidelines
Waste management	Pollution of habitats and surrounding areas.	Pollution	Construction Operation	Avoid and control through implementation of EMP mitigation measures (e.g. speed limit enforcement, vehicle maintenance)	DWS minimum requirement for waste disposal
Prospecting boreholes	Vegetation clearance; Possible erosion; Changes in drainage and surface hydrology; Soil disturbance and compaction; Emissions from vehicles; Land use conflict; Noise disturbance due to acoustic sources; Dust generation; Disturbance or damage of palaeontological resources; Potential spills of hydrocarbons; Impact on groundwater	Ecology; Topography; Access/footprint; Soil disturbance; Noise; Air Quality; Socio-economics; Groundwater	Construction Operation Decommissioning	Control through implementation of EMP mitigation measures	ECA Noise Regulation NEMA; AQA GNR827 Dust regulations NWA

Resource definition drilling	Vegetation clearance Removal of topsoil; Changes in drainage and surface hydrology; Drainage and soil contamination; Land use conflict; Dust generation; Disturbance of wildlife and communities in close vicinity; New access roads; Increased transportation; Damage to local infrastructure; Disturbance or damage of palaeontological resources; Influx of people; Waste water discharge; Spillage and leaks of hydrocarbons; Pollution or interplay between groundwater aquifers; Waste disposal.	Air Quality; Noise; Surface water; Groundwater	Operation	Control through implementation of EMPR mitigation measures	SANS10103 ECA Noise Regulation s NEM; AQA GNR827 Dust regulations NWA DWS best Practice Guidelines
Refuelling	Potential hydrocarbon spills that could pollute soil or surface and/or groundwater resources.	Pollution; Surface water; Groundwater	Construction Operation	Control through implementation of EMPR mitigation measures	NWA DWS best Practice Guidelines
Maintenance and repair	Potential hydrocarbon spills that could pollute surface and groundwater resources.	Pollution; Surface water; Groundwater	Construction Operation	Control through implementation of EMPR mitigation measures	NWA

Borehole closure	<ul style="list-style-type: none"> • Pollution of groundwater resources; • Potential pollution of habitats with cement residue that may be exposed to runoff etc. 	<p>pollution; Groundwater</p>	Decommissioning	Control through implementation of EMPr mitigation measures	NWA
------------------	---	-----------------------------------	-----------------	--	-----

Removal of surface infrastructure	<ul style="list-style-type: none"> • Soil compaction; • Pollution of soil and surrounding vegetation. 	Landform; Topography;Soils.	Decommissioning	Control through implementation of EMPr mitigation measures	MPRDA In accordance with Rehabilitation plan
Rehabilitation	<ul style="list-style-type: none"> • Soil compaction; • Soil and Water contamination; • Erosion; • Change in drainage and surface hydrology; • Loss of habitat; and • Disturbance to wildlife and communities in close vicinity 	Topography Land use Soil disturbance Ecology Surface water Groundwater	Rehabilitation	Control through implementation of EMPr mitigation measures	MPRDA In accordance with Rehabilitation plan
Monitoring of rehabilitated sites	<ul style="list-style-type: none"> • Soil compaction; • Soil and Water contamination; • Erosion; • Disturbance to wildlife; and communities in close vicinity. 	Topography Land use Soil disturbance Ecology Surface water Groundwater	Post-operation	Control through adhering to monitoring requirements	MPRDA and regulations

E. FINANCIAL PROVISION

Determination of the amount of Financial Provision.

2. Describe the closure objectives and the extent to which they have been aligned to the baseline environment described under the Regulation.

The following closure objectives will be applicable for concurrent rehabilitation:

- i. Land disturbed will be rehabilitated to a stable and permanent form suitable for subsequent land use e.g. crop farming and cattle grazing.
 - ii. The final land use will be like surrounding land-use i.e. crop farming & cattle grazing
 - iii. There will be no adverse environmental effect outside the small disturbed areas (0.9 ha) and the affected area will be shaped to ensure effective drainage.
 - iv. The closure objectives are to minimize disturbance wherever possible so that normal land use can continue after closure.
- 3. Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.**
- v. Minimise the area to be disturbed and to ensure that the areas disturbed during the prospecting activities are rehabilitated and stable, as per the commitments made in the EMPr. Sustain the pre-prospecting land use and return the site to its near natural state as far as possible.
 - vi. Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main prospecting activities, including the anticipated mining area at the time of closure.
 - vii. After drilling has been completed in one area, the drilling team will ensure the site is Reverted to its original state by implementing the measures listed in Table 18 below.

Table 18: Rehabilitation measures

Aspect/Impact	Rehabilitation Measure	Monitoring Frequency and Responsibility
Removal of construction structures	<ul style="list-style-type: none">• Clear and completely remove from site all construction plant equipment, storage containers, signage, temporary fencing, temporary services, fixtures and any other temporary works; and• Ensure that all access roads utilised during construction (which are not earmarked for closure and rehabilitation) are returned (as far as possible) to their state prior to construction.	Once-off, Lebano Assets (Pty) Ltd

Vegetation clearing/Replanting	<ul style="list-style-type: none"> Remove any emerging alien and invasive vegetation to prevent further establishment; All planting work is to be undertaken by suitably qualified personnel making use of the appropriate equipment; Transplant during the winter (between April and September); and Plant indigenous plants to minimise the spread of alien and invasive vegetation. 	When revegetation is done and in blooming season,
Topsoil replacement	<ul style="list-style-type: none"> Replace and redistribute stockpiled topsoil together with herbaceous vegetation, overlying grass and other fine organic matter in all disturbed areas of the prospecting site, including temporary access routes and roads. Replace topsoil to the original depth (i.e. as much as was removed prior to construction). Prohibiting the use of topsoil suspected to be contaminated with the seed of alien vegetation. Alternatively, the soil is to be sprayed with specified herbicides. Backfill planting holes with excavated material / approved topsoil, thoroughly mixed with weed free manure or compost (per volume about one quarter of the plant hole), one cup of 2:3:2 fertiliser and an approved ant and termite poison. 	Once-off, Lebano Assets (Pty) Ltd

4. Explain why it can be confirmed that the rehabilitation plan is compatible with the closure objectives.

The Company is required to make the prescribed financial provision for the rehabilitation or management of negative environmental impacts. If the Company fails to rehabilitate or manage any negative impact on the environment, the DMRE may, upon written notice to the Company, use all or part of the financial provision to rehabilitate or manage the negative environmental impact in question. The Company will specify that the drilling contractor is required to comply with all the environmental measures specified in the EMP. This will include avoiding unnecessary disturbance of natural vegetation and the rehabilitation of each drill site, immediately after drilling has been completed. All tracks to the drill sites must be rehabilitated at the end of the prospecting programme. The financial provision provides for the final checking of all sites before site clearance.

Safety after the completion of the prospecting activities will be done by concurrent rehabilitation of drill holes. Overburden will be recorded, and the holes filled back simultaneously.

5. Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline.

The quantum of the financial provision required is R65409,00. The Company must annually update and review the quantum of the financial provision (as per Regulation 154 (2) of the MPRDA). The financial Quantum Calculation is found under Appendix I.

6. Confirm that the financial provision will be provided as determined.

Lebano Assets (Pty) Ltd. herewith confirms both its capacity and willingness to make the financial provision required should the prospecting right be granted.

Mechanisms for monitoring compliance with and performance assessment against the environmental management programme and reporting thereon, including:

- Monitoring of Impact Management Actions
- Monitoring and reporting frequency
- Responsible persons
- Time period for implementing impact management actions
- Mechanism for monitoring compliance

Table 19: Mechanism for monitoring

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
All Prospecting Activities	N/A	Ensure that the prospecting programme is being implemented in line with the approved prospecting works programme.	Lebano Assets (Pty) Ltd. Geologist	Submit an annual prospecting progress report to DMRE
	All commitments contained in the BA Report and accompanying EMPr	Ensure commitments made within the approved BAR and EMPr are being adhered to.	Internal environmental control officer and independent EAP	Undertake and submit an environmental performance audit every two years to DMRE
Drilling Activities	Noise	Weekly inspections will cover the following:	Appointed drilling contractor	Weekly inspection and reporting
	Dust fall			
	Visual			
	Soil & vegetation			

	Social	_ Implementation of effective waste management		
	Housekeeping & maintenance			
	Waste management			
		_ Establish and implement a stakeholder compliant register on site and ensure that all complaints are responded to promptly. _ Ensure that an oil spill kit is readily available.		

7. Indicate the frequency of the submission of the performance assessment/ environmental audit report.

The result of environmental monitoring and compliance to the approved EMPR will be undertaken every second year and submitted to the DMRE in the form of an environmental performance assessment. Included in the report will be the following relevant information:

- The period when the performance assessment was conducted.
- The scope of the assessment.
- The procedures used for conducting the assessment.
- Interpreted information gained from monitoring the EMPR.
- Evaluation criteria used during the assessment.
- Results of the assessment are to be discussed and mention must be made of any gaps in the EMPR and how it can be rectified.
- Yearly updated layout plans.

Any emergency or unforeseen impacts will be reported immediately to the DMRE and other relevant government departments.

F. OTHER GUIDELINES

The following additional guidelines which relate to financial provisioning and closure have been published in the South African context:

- ❖ **Aspects for Mine Closure:** This guideline was prepared by the DWS and aims to provide a logical and clear process that can be applied by mines and the competent authorities to enable proper mine closure planning that meets the requirements of the relevant authorities. This guideline is aimed primarily at larger scale mines and does not specifically address closure issues related to closure of prospecting activities, however certain principles related to closure and water management are relevant. The following technical factors which should be considered during closure, and which are likely to relate to prospecting activities, have been considered:
- ❖ **Land use plan:** directly interlinked with water management issues in as far as water is required to support the

intended land use- in this regard the surrounding communities and the land uses implemented rely on available ground and surface water to be sustained.

- ❖ **Public participation and consultation:** consultation is fundamental to closure and there is a need for full involvement of stakeholders in the development of the final closure plans, and in the agreement of closure objectives- in this regard this FRDCP has been made available through the Basic Assessment public participation process for comment by relevant stakeholders.

8. DESCRIBE THE CLOSURE OBJECTIVES AND THE EXTENT TO WHICH THEY HAVE BEEN ALIGNED TO THE BASELINE ENVIRONMENT DESCRIBED UNDER THE REGULATION

Considering the relatively limited impact of the proposed prospecting activities, the closure objectives are aimed at re-instating the landform, land use and vegetation units to the same as before prospecting operations take place unless a specific, reasonable alternate land use is requested by the landowner. As such, the intended end use for the disturbed prospecting areas and the closure objectives will be defined in consultation with the relevant landowner. Proof of such consultation will be submitted together with the Application for Closure Certificate. The overall aim of the rehabilitation plan is to rehabilitate the environment to a condition as close as possible to that which existed prior to prospecting. This shall be achieved with a number of specific objectives.

1. **Making the area safe.** i.e. Decommission prospecting activities so as to ensure that the environment is safe for people and animals. This entails refilling excavations, boreholes capping, etc.
2. **Recreating a free draining landform.** This entails earthworks infilling, reshaping, levelling, etc. to recreate as close as possible the original topography and to ensure a free draining landscape.
3. **Re-vegetation.** This involves either reseedling or allowing natural succession depending on the area, climate etc.
4. **Storm water management and erosion control.** Management of storm water and prevention of erosion during rehabilitation. E.g. cut off drains, berms etc. and erosion control where required.
5. **Verification of rehabilitation success.** Entails monitoring of rehabilitation.
6. **Successful closure.** Obtain closure certificate.

9. CONFIRM SPECIFICALLY THAT THE ENVIRONMENTAL OBJECTIVES IN RELATION TO CLOSURE HAVE BEEN CONSULTED WITH LANDOWNER AND INTERESTED AND AFFECTED PARTIES

The Public Participation Process (PPP) is a requirement of several pieces of South African Legislation and aims to ensure that all relevant Interested and Affected Parties (I&AP's) are consulted, involved and their opinions are taken into account and a record included in the reports submitted to Authorities. The process ensures that all stakeholders are provided this opportunity as part of a transparent process which allows for a robust and comprehensive environmental study. The PPP for the as part of the prospecting right application needs to be managed sensitively and according to best practises in order to ensure and promote:

- ❖ Compliance with national legislation;
- ❖ Establish and manage relationships with key stakeholder groups; and
- ❖ Encourage involvement and participation in the environmental study and authorisation/ approval process.

As such, the purpose of the PPP and stakeholder engagement process is to:

- ❖ Introduce the proposed project;
- ❖ Explain the environmental authorisations required;
- ❖ Explain the environmental studies already completed and yet to be undertaken (where applicable);
- ❖ Determine and record issues, concerns, suggestions, and objections to the project;
- ❖ Provide opportunity for input and gathering of local knowledge;
- ❖ Establish and formalise lines of communication between the I&AP's and the project team;
- ❖ Identify all significant issues for the project; and
- ❖ Identify possible mitigation measures or environmental management plans to minimise and/or prevent negative environmental impacts and maximize and/or promote positive environmental impacts associated with the project.

Landowners and interested and affected parties have been consulted and provided an opportunity to comment on this Basic Assessment Report, EMPR including all decommissioning, closure and rehabilitation plans.

REHABILITATION PLAN

10. INTEGRATED REHABILITATION AND CLOSURE PLAN

The main aim in developing this rehabilitation plan is to mitigate the impacts caused by the prospecting activities and to restore land back to a satisfactory standard. It is best practice to develop the rehabilitation plan as early as possible so as to ensure the optimal management of rehabilitation issues that may arise. It is important that the project's closure plan is defined and understood from before starting the process and is complementary to the rehabilitation goals. Rehabilitation and closure objectives need to be tailored to the project at hand and be aligned with the EMPR. The overall rehabilitation objectives for this project are as follows:

- Maintain and minimise impacts to the ecosystem within the study area;
- Re-establishment of the pre-developed land capability to allow for a suitable post-mining land use;
- Prevent soil, surface water and groundwater contamination;
- Comply with the relevant local and national regulatory requirements; and
- Maintain and monitor the rehabilitated areas.

Successful rehabilitation must be sustainable, and requires an understanding of the basic baseline environment, as well as project management to ensure that the rehabilitation program is a success.

It is noted that an application for environmental authorisation must be submitted for closure in accordance with Listing Notice 1 Activity 22:

The decommissioning of any activity requiring –

- I. a closure certificate in terms of Section 43 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002); or
- II. A prospecting right, mining permit, production right or exploration right, where the throughput of the activity has reduced by 90% or more over a period of 15 years excluding where the competent authority has in writing agreed that such reduction in throughput does not constitute closure.

11. PHASE 1: MAKING SAFE

In line with the DWAF (2008). Best Practice Guideline A6: Water Management for Underground Mines. All prospecting boreholes that will not be required for later monitoring or other useful purposes should be plugged and sealed with cement to prevent possible cross flow and contamination between aquifers. Cement and liquid concrete are hazardous to the natural environment on account of the very high pH of the material, and the chemicals contained therein. As a result, the contractor shall ensure that:

- Concrete shall not be mixed directly on the ground;
- The visible remains of concrete, either solid, or from washings, shall be physically removed immediately and disposed of as waste, (Washing of visible signs into the ground is not acceptable); and
- All excess aggregate shall also be removed.

12. PHASE 2: LANDFORM DESIGN, EROSION CONTROL AND REVEGETATION

Landform, erosion control and re-vegetation is an important part of the rehabilitation process. Landform and land use are closely related, and the landform should be returned as closely as possible to the original landform. Community expectations, compatibility with local land use practices and regional infrastructure, or the need to replace natural ecosystems and faunal habitats all support returning the land as closely as possible to its original appearance and productive capacity. This requires the following:

- Shape, level and de-compact the final landscape after removing all the project infrastructure, dress with topsoil and, where necessary, vegetate with indigenous species. Commission specialists to assist in planning re-vegetation and the management of environmental impact, as required.
- Remove access roads with no beneficial re-use potential by deep ripping, shaping and levelling after the removal and disposal of any culverts, drains, ditches and/or other infrastructure. Natural drainage patterns are to be reinstated as closely as possible.
- Construct contour banks and energy dissipating structures as necessary to protect disturbed areas from erosion prior to stabilisation.
- Promote re-vegetation through the encouragement of the natural process of secondary succession.
- Natural re-vegetation is dependent on de-compaction of subsoils and adequate replacement of the accumulated reserves of topsoil (for example, over the borehole sites), so as to encourage the establishment of native vegetation.
- Remove alien and/or exotic vegetation.

13. PHASE 3: MONITORING AND MAINTENANCE

The post-operational monitoring and management period following decommissioning of prospecting activities must be implemented by a suitable qualified independent party for a minimum of one (1) year unless otherwise specified by the competent authority.

The monitoring activities during this period will include but not be limited to:

- Biodiversity monitoring; and
- Re-vegetation of disturbed areas where required.

Provision must be made to monitor any unforeseen impact that may arise as a result of the proposed prospecting activities and incorporated into post closure monitoring and management.

14. POST-CLOSURE MONITORING AND MAINTENANCE

Prior to decommissioning and rehabilitation activities, a monitoring programme shall be developed and submitted to the relevant authority for approval, as a part of the Final Rehabilitation Plan. The programme should include proposed monitoring during and after the closure of the prospecting borehole sites and related activities.

It is recommended that the post-closure monitoring include the following:

- Confirmation that any waste, wastewater or other pollutants that is generated as a result of decommissioning will be managed appropriately, as per the detailed requirements set out in the Final Rehabilitation Plan,
- Confirmation that all de-contaminated sites are free of residual pollution after decommissioning.

- Confirmation that acceptable cover has been achieved in areas where natural vegetation is being re-established. 'Acceptable cover' means the re-establishment of pioneer grass.

communities over disturbed areas at a density similar to the surrounding undisturbed areas, free of invasive alien plants and free of eroding.

- Confirmation that the prospecting borehole sites are safe and are not resulting in a pollution hazard.

Annual environmental reports will be submitted to the Designated Authority and other relevant Departments for at least a year post-decommissioning. The frequency and duration of this reporting period may be increased to include longer term monitoring, at intervals to be agreed with the Designated Authority.

The monitoring reports shall include a list of any remedial action necessary to ensure that infrastructure that has not been removed remains safe and pollution free and that rehabilitation of project sites are in a stable, weed and free condition.

15. EXPLAIN WHY IT CAN BE CONFIRMED THAT THE REHABILITATION PLAN IS COMPATIBLE WITH THE CLOSURE OBJECTIVES

The rehabilitation plan is compatible with the closure objectives in that it seeks to ensure that negative impacts on the receiving environment that could not be prevented or mitigated during prospecting are rehabilitated. The use of indigenous species during re-vegetation will ensure that ecosystem restoration is initiated and prevent invasion by alien species, the capping of boreholes will prevent future environmental issues related to fluid leakage or lateral movement through the borehole, as well as protect water resources. The appropriate disposal of waste will ensure that land is usable, in alignment with surrounding land uses and that no hazardous materials are left on site post-prospecting.

CALCULATE AND STATE THE QUANTUM OF THE FINANCIAL PROVISION REQUIRED TO MANAGE AND REHABILITATE THE ENVIRONMENT IN ACCORDANCE WITH THE APPLICABLE GUIDELINE

The quantum of the financial provision required is therefore: **R65409,00** The Company must annually update and review the quantum of the financial provision (*Regulation 154 (2)*). TABLE FOR CALCULATIONS ATTACHED BELOW

16. CONFIRM THAT THE FINANCIAL PROVISION WILL BE PROVIDED AS DETERMINED

The amount the finance the prospecting activities will amount to (R65409,0000). Financing will be sourced from the capital expenditure as planned by the company; this capital will come from the treasury of the company. As part of the Prospecting Works Programme, the applicant has provided the annual financial statement for 2023. It should be noted that the current expenditure provided for in the Prospecting Works Programme does not include the calculated Financial Provision as included into this Basic Assessment, as these values were not available at the time of the submission of the Prospecting Works Programme. The provision for closure, should be updated into the Prospecting Works Programme prior the decision by the DMRE should this decision be positive.

G. MECHANISMS FOR MONITORING COMPLIANCE

Table 20: Mechanisms for Monitoring Compliance.

Source Activity	Impacts Requiring Monitoring Programmes	Functional Requirements for Monitoring	Roles and Responsibilities	Monitoring and Reporting Frequency and Time Periods for Implementation
Desktop Study: Literature Survey / Review / acquisition of data	None	None	None	None
Geological field mapping	<ul style="list-style-type: none"> All Impacts Identified in the EMPr 	<ul style="list-style-type: none"> Site inspections and checklists; Complaints register 	Contractors Environmental Representative; ECO	<input type="checkbox"/> Daily inspections and checklists
Regional Ground Geophysical Surveys	<ul style="list-style-type: none"> All Impacts Identified in the EMPr 	<ul style="list-style-type: none"> Site Inspections and checklists 	<ul style="list-style-type: none"> Contractors Environmental Representative 	<input type="checkbox"/> Daily inspections and checklists

<p>Site Clearance:</p> <p>The clearance of an area of 0.9 ha of indigenous vegetation in Standerton Within critical biodiversity areas identified in bioregional plans.</p>	<ul style="list-style-type: none"> • Possession of permits for protected species • Relocation of protected species • Alien vegetation management 	<ul style="list-style-type: none"> • Document Control • Site Inspections and checklists • Report review and • Development of actions plans 	<ul style="list-style-type: none"> • Contractors Environmental Representative; • Environmental specialist, ECO • Senior Environmental Management 	<ul style="list-style-type: none"> • Once-off control of documents, site visit and reporting; • Monthly site visits; • Monthly Reports Annual Performance Assessment
---	---	--	---	---

<p>Target Prospecting Boreholes:</p> <p>10 drill sites, each site covering a total area of 0.9 ha</p>	<ul style="list-style-type: none"> • Alien vegetation management • Noise • Air quality (if complaints are registered) • Surface and groundwater management • Impacts on heritage features 	<ul style="list-style-type: none"> • Site Inspections and checklists; • Report review and development of corrective action plans • Inspection of surface water features • Survey of groundwater users and use within 15km of the invasive prospecting sites. • Demarcation of sensitive areas 	<ul style="list-style-type: none"> • Contractors Environmental Representative; • Environmental specialist, ECO • Senior Environmental Management; • Geohydrologist (if required) 	<ul style="list-style-type: none"> • Once-off control of documents, site visit and reporting; • Monthly site visits; • Monthly Reports Annual Performance • Prior to invasive prospecting activities and monitoring post-prospecting.
Data Compilation	None	None	None	None
Detailed Ground geophysical Surveys	▢ All Impacts Identified in the EMPr	▢ Site Inspections and checklists	▢ Contractors' Environmental Representative	▢ Daily inspections and checklists
<p>Widely Spaced Prospecting Boreholes:</p> <p>10 sites , with a footprint of 0.9 ha each</p>	▢ All Impacts Identified in the EMPr	▢ Site Inspections and checklists	▢ Contractors' Environmental Representative; ECO	▢ Daily inspections and checklists

Closely Spaced Prospecting Boreholes	<ul style="list-style-type: none"> • Alien vegetation management • Noise (if any complaints are registered by residents) • Air quality (if complaints are registered) 	<ul style="list-style-type: none"> • Site Inspections and checklists; • Report review and development of corrective action plans 	<ul style="list-style-type: none"> • Contractors' Environmental Representative; • Environmental specialist, ECO • Senior Environmental Management. 	<p>Once-off control of documents,site visit and reporting;</p> <p>Monthly site visits;</p> <p>Monthly Reports Annual Performance</p>
Environmental Screening by ECO	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections andchecklists
Ablutions - Chemical Toilets	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections andchecklists
Sample storage (Existing BMM prospecting office. No new infrastructure to be constructed)	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections andchecklists
Access Route	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections andchecklists

Temporary general waste storage (General/domestic waste -Wheelie bin)	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections and checklists
Temporary hazardous waste storage (Hazardous waste – Sealed Container)	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<input type="checkbox"/> Contractors' Environmental Representative	<input type="checkbox"/> Daily inspections and checklists
Compilation of geological plans	None	None	None	None
Undertake decommissioning and rehabilitation as per the rehabilitation plan	<ul style="list-style-type: none"> • Alien vegetation management • Noise (if any complaints are registered by residents) • Air quality (if complaints are registered) 	<ul style="list-style-type: none"> • Site Inspections and checklists; • Report review and development of corrective action plans 	<ul style="list-style-type: none"> • Contractors' Environmental Representative; • Environmental specialist, ECO • Senior Environmental Management • Surface water specialist 	<ul style="list-style-type: none"> • Monthly site visits; • Monthly Reports and Annual Performance Assessments
Monitoring of rehabilitation efforts	All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists	<ul style="list-style-type: none"> • ECO; • Independent Environmental Auditor 	Monthly reports

Surface Water	<input type="checkbox"/> All Impacts Identified in the EMPr	<input type="checkbox"/> Site Inspections and checklists; <input type="checkbox"/> Report review and development of corrective action plans	<input type="checkbox"/> ECO; <ul style="list-style-type: none"> Contractors Environmental Representative; Senior Environmental Management 	Monthly Reports
Groundwater	<input type="checkbox"/> All Impacts Identified in the EMP	<ul style="list-style-type: none"> Site Inspections and checklists; Report review and development of corrective action plans 	<ul style="list-style-type: none"> Environmental specialist, ECO Senior Environmental Management 	<ul style="list-style-type: none"> Monthly; If pollution event occurs at boreholes.

H. INDICATE THE FREQUENCY OF THE SUBMISSION OF THE PERFORMANCE ASSESSMENT/ ENVIRONMENTAL AUDIT REPORT

The result of environmental monitoring and compliance to the approved EMPR will be undertaken annually and submitted to the DMRE in the form of an environmental performance assessment.

I. ENVIRONMENTAL AWARENESS PLAN AND TRAINING

10.1 AMANNER IN WHICH EMPLOYEES WILL BE INFORMED OF ENVIRONMENTAL RISKS

All employees must be provided with environmental awareness training to inform them of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution or the degradation of the environment.

Employees should be provided with environmental awareness training before prospecting operations start. All new employees should be provided with environmental awareness training Induction courses will be provided to all employees by a reputable trainer.

10.2 MANNER IN WHICH RISKS WILL BE DEALT WITH TO AVOID POLLUTION OR DEGRADATION

The broad measures to control or remedy any causes of pollution or environmental degradation as a result of the proposed prospecting activities taking place are provided below:

- ❖ Contain potential pollutants and contaminants (where possible) at source;
- ❖ Handling of potential pollutants and contaminants (where possible) must be conducted in bunded areas and on impermeable substrates;
- ❖ Ensure the timely clean-up of any spills;
- ❖ Implement a waste management system for all waste stream present on site;
- ❖ Investigate any I&AP claims of pollution or contamination as a result of prospecting activities; and
- ❖ Implement the impact management objectives, outcomes and actions, as described in Section 26 above.

It is of critical importance that the broad measures to control or remedy any causes of pollution or environmental destruction are applied during onsite prospecting activities.

10.3 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

The financial provision will be reviewed annually indicating work that would have been completed and money used for rehabilitation as required by the law.

ENVIRONMENTAL MONITORING

J. Functional Requirements of Monitoring Programmes

The purpose of monitoring is not merely to collect data, but to provide information necessary to make informed decisions on managing and mitigating potential impacts. Monitoring therefore serves the following functions:

- Serve as early warning system to detect any potential negative impacts.
- To provide information
 - o feedback into management controls to avoid, prevent or minimise potential negative impacts.
- Provide quantitative data that can serve as evidence for the presence of negative impacts or the lack thereof.

Allows for trending, modelling and prediction of future conditions or potential impacts.

Based on the above, the small-scale mine must ensure that monitoring programmes comprise of the following (at a minimum) in order to obtain valuable environmental data:

- Environmental aspect monitoring must be a formalised procedure.
- All equipment used in monitoring must be correctly calibrated and serviced regularly.
- Samples required for analysis will be sent to an independent and accredited laboratory.
- Monitoring data must be stored.
- Data must be checked and interpreted and trending undertaken on a quarterly basis.
- Both the data and reports on environmental monitoring must be kept on record for the life of mine and where relevant provided to I&APs.
- The general and site specific parameters to be monitored must be identified by an independent specialist, the authorities and where relevant I&APs.

K. List of Aspects that Require Monitoring Plans

The list of aspects that require on-going environmental monitoring includes the following:

- Air quality.
- Blasting and vibration.
- Surface water.
- Groundwater.
- Noise.
- Traffic.
- Rehabilitation.

As drills and the environment are both dynamic it is likely that future scenarios may require the monitoring of additional or unforeseen impacts. As such, the list provided is by no means conclusive and must instead be used as a guideline for the impacts that require monitoring.

L. Monitoring Plans for Environmental Aspects

The monitoring of various environmental aspects and the impact on them as a result of the proposed project shall take place by means of both quantitative and qualitative techniques in order to determine whether or not the requirements of the Environmental Management Programme are being complied with. The importance and value of detailed environmental monitoring networks cannot be overstated.

Environmental monitoring serves as a tool to track compliance, assist with potential liability identification, and mitigation throughout the life of the proposed project. This is achieved through the provision of actual evidence based monitoring and reporting thereof. In essence, monitoring is a continuous data-gathering, data interpreting, and control procedure that ranges from visual inspection to in-depth investigative monitoring and reporting. These monitoring plans need to be drawn into standalone plans that can be updated and amended as per authority requirements and additional data requirements identified during the prospecting activities. These plans need to include the site specific roles and

responsibilities for action

M. UNDERTAKING

The 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)** That the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected. Parties are correctly reflected herein.

Signature of the environmental assessment practitioner:

Singo Consulting (Pty) Ltd

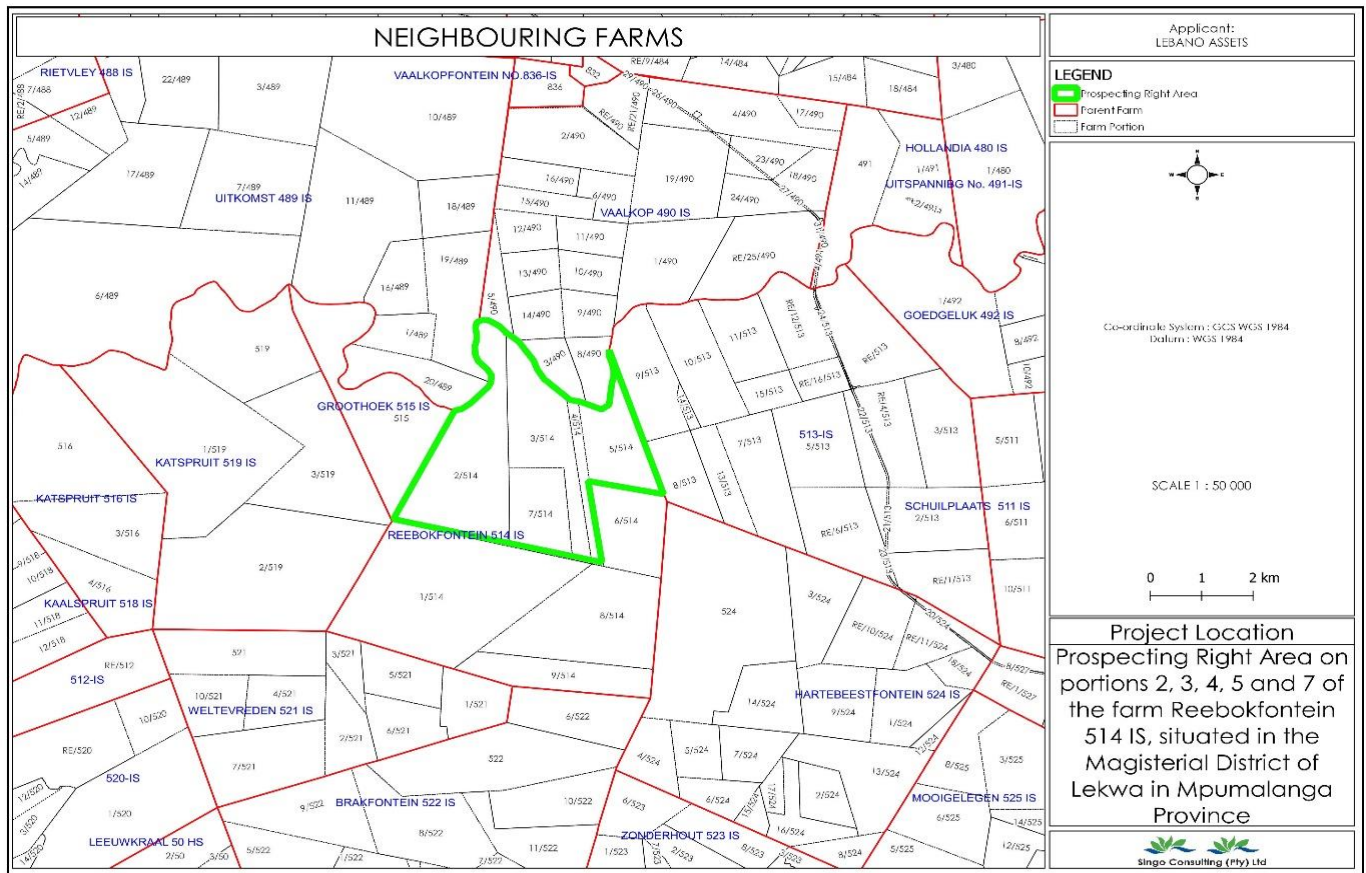
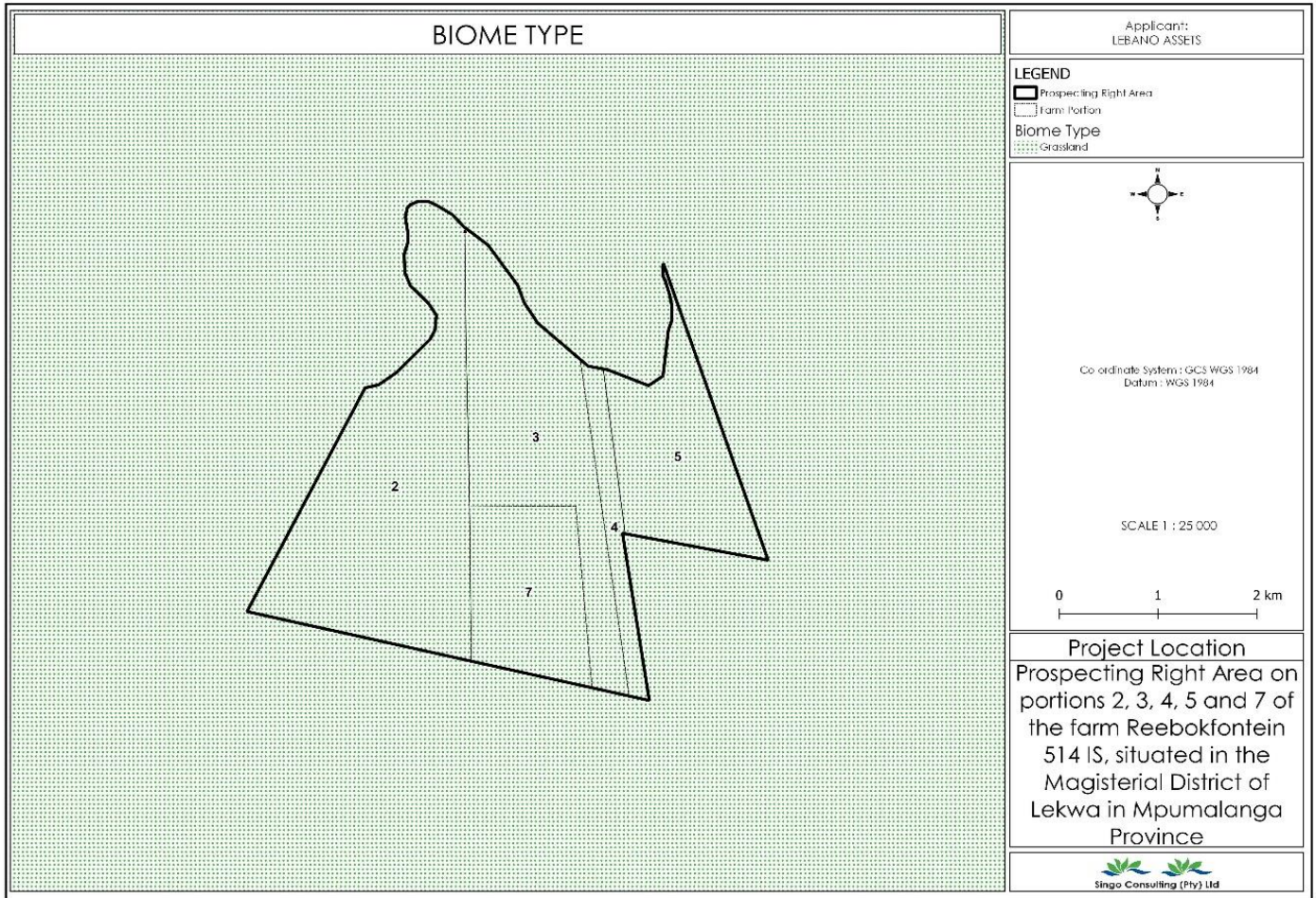
Name of company:

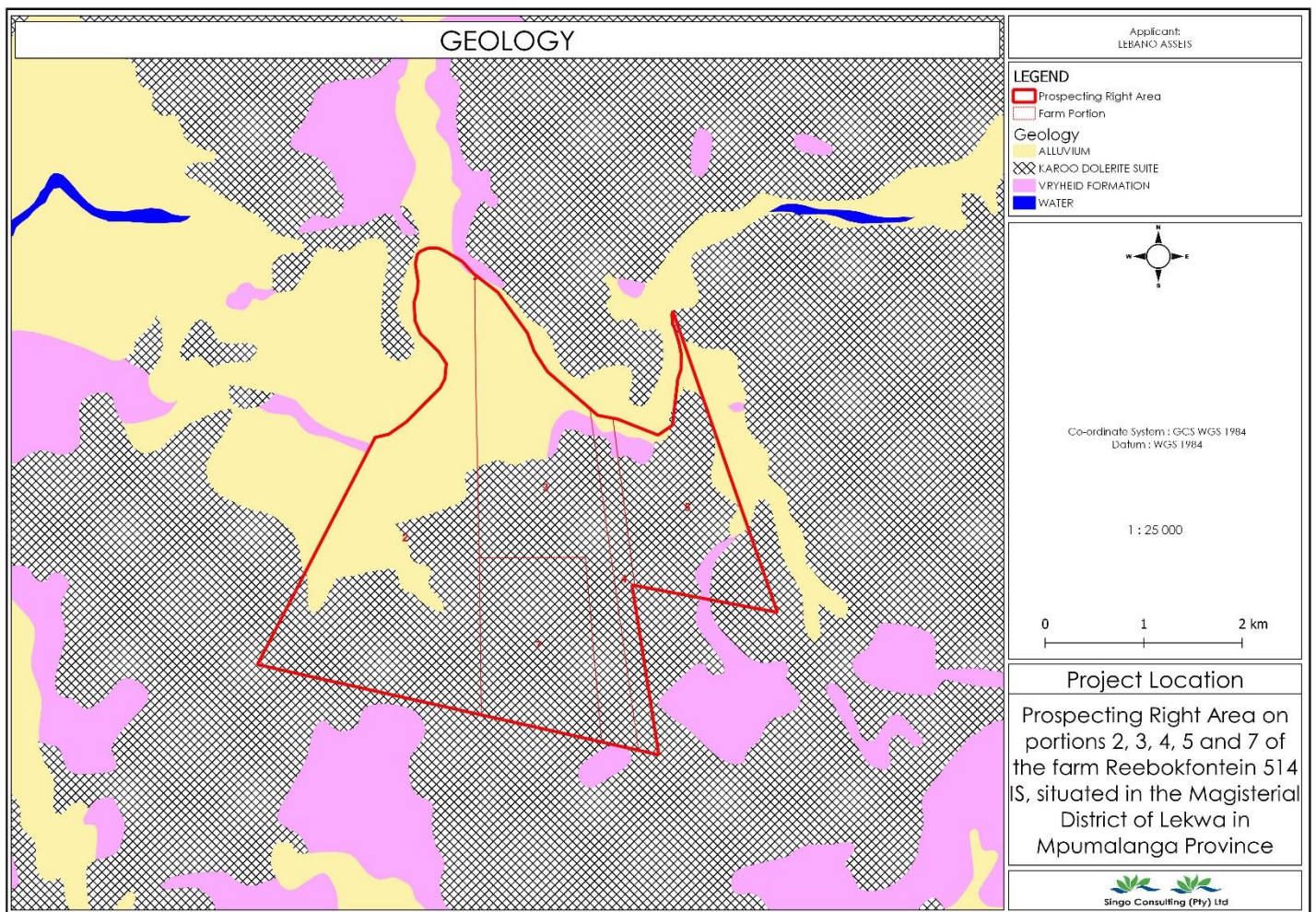
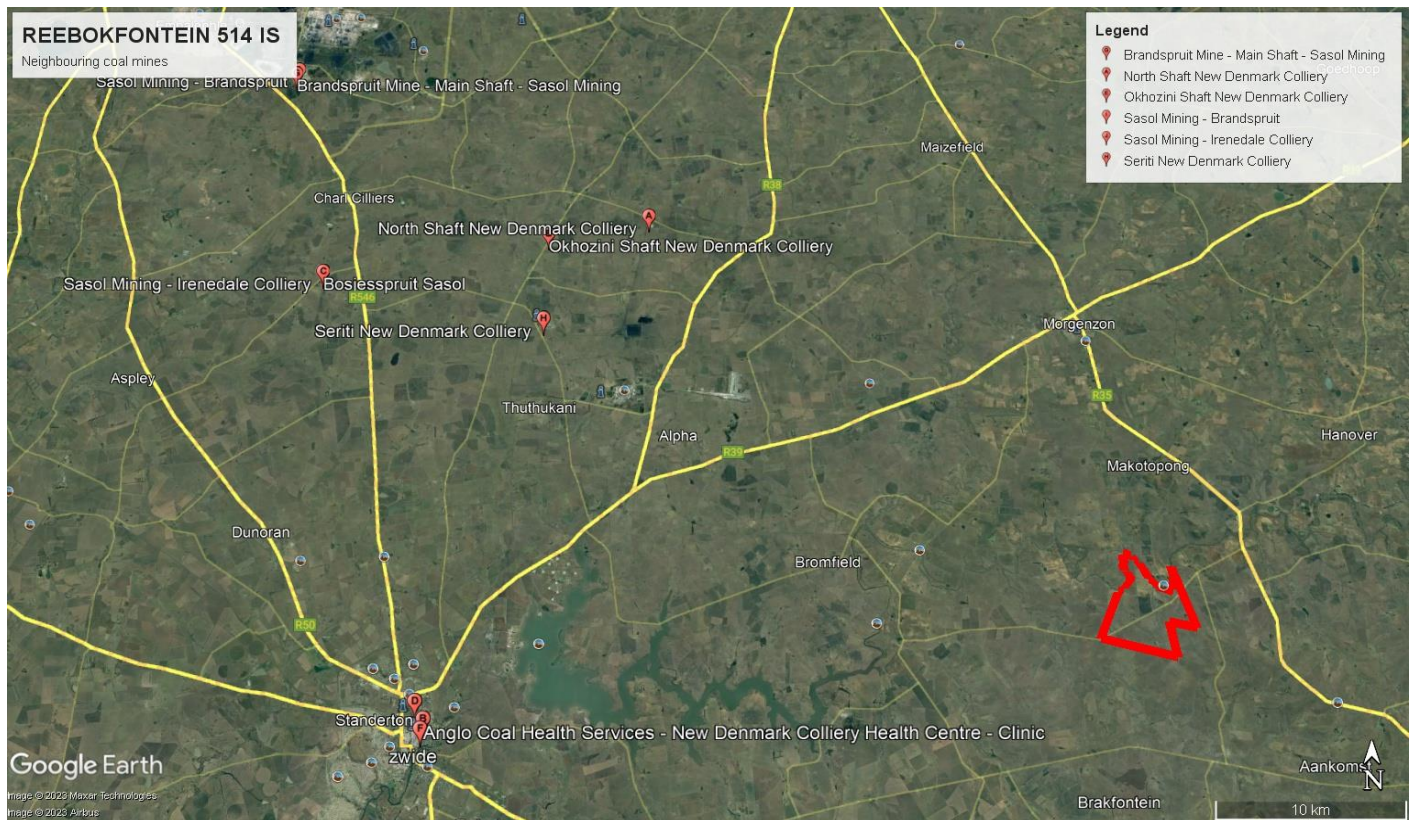
2023

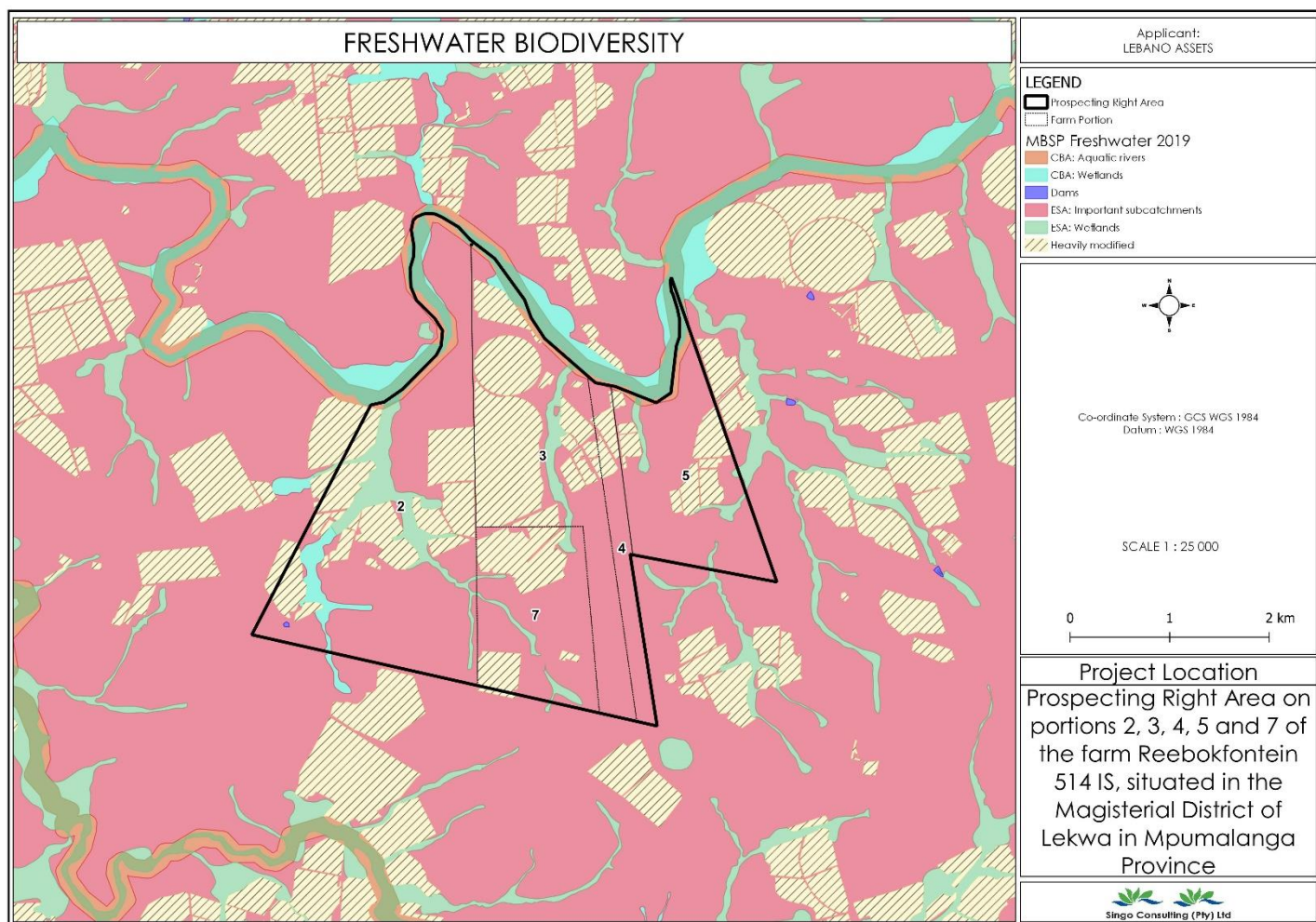
Date:

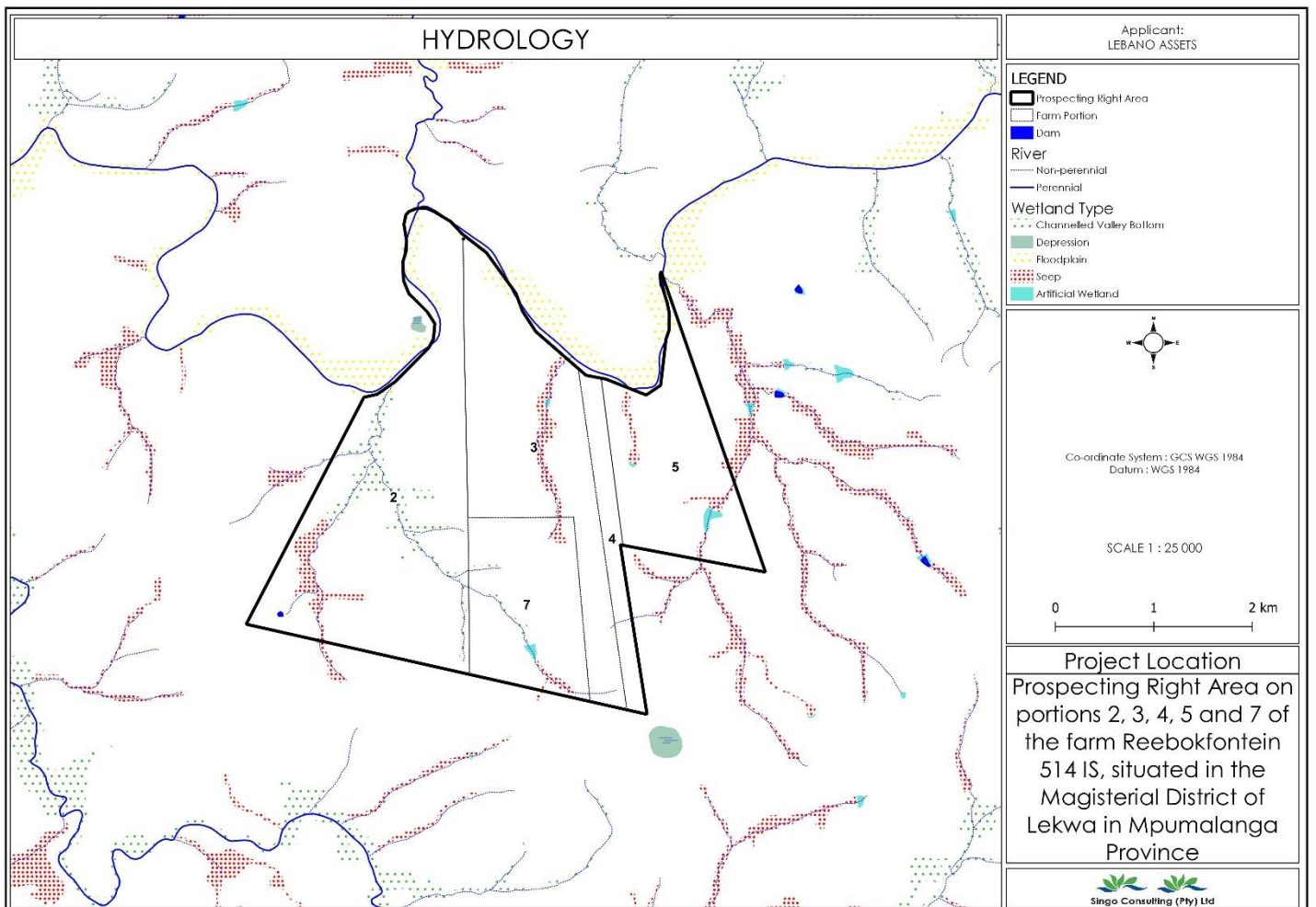
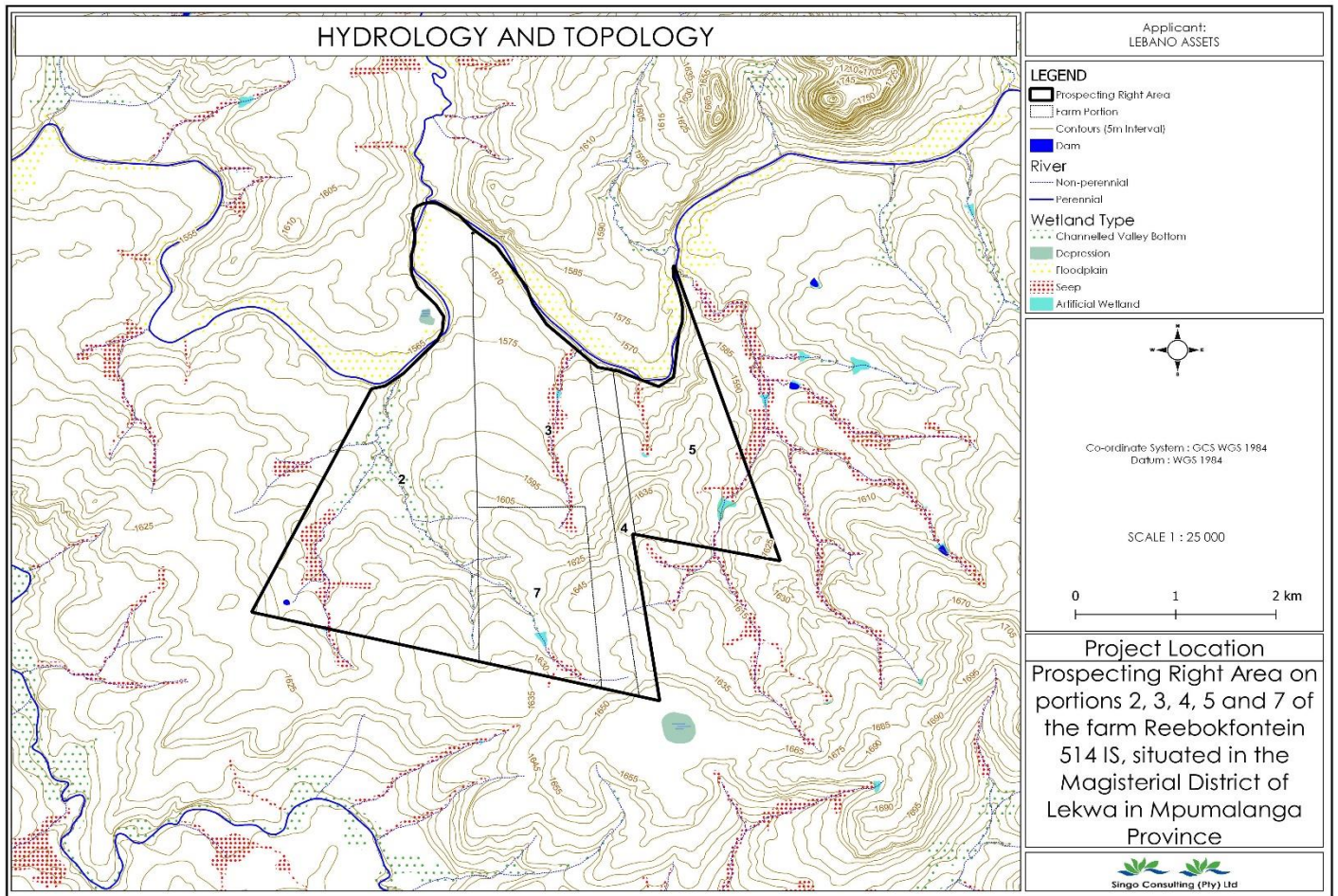
-END-

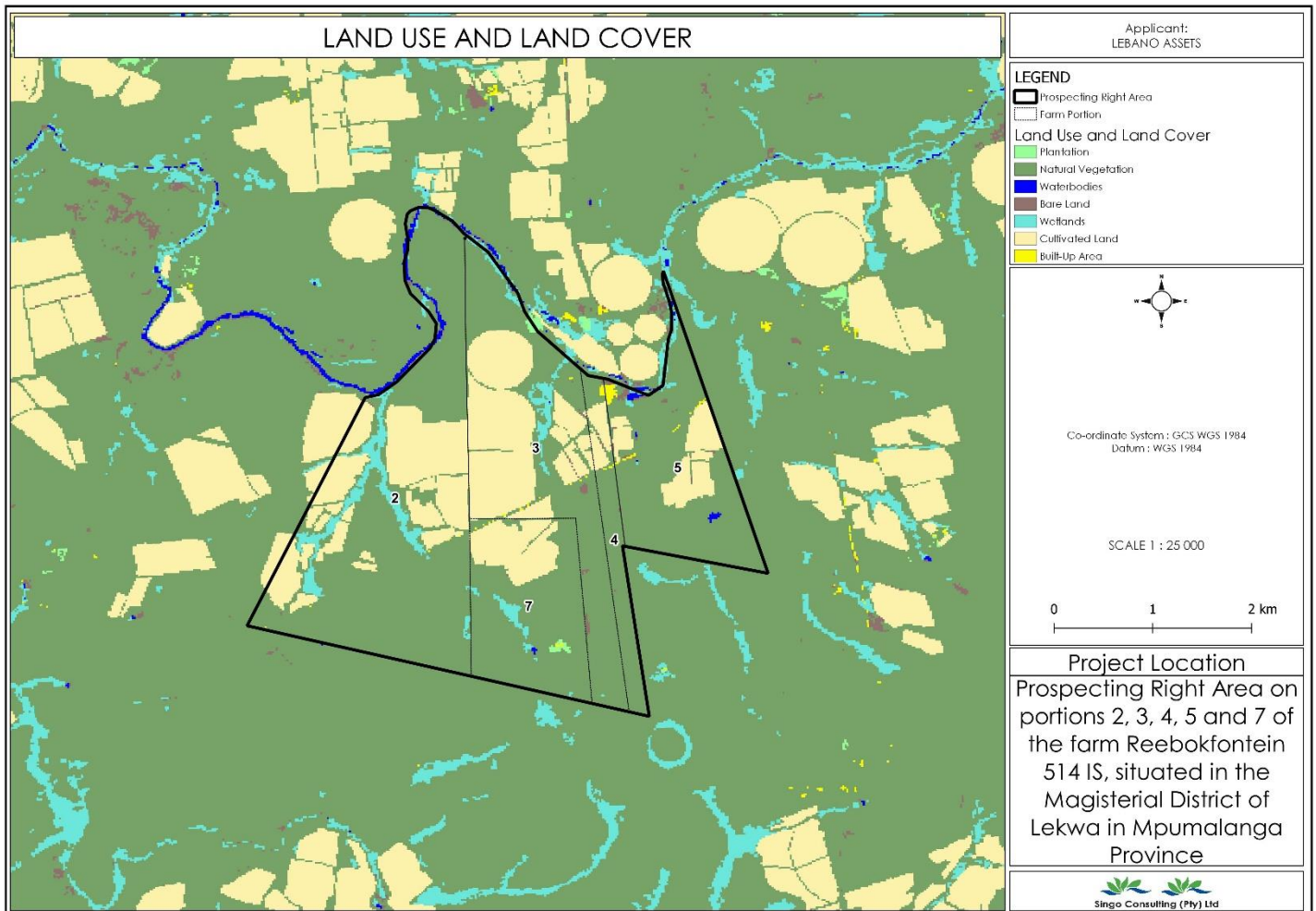
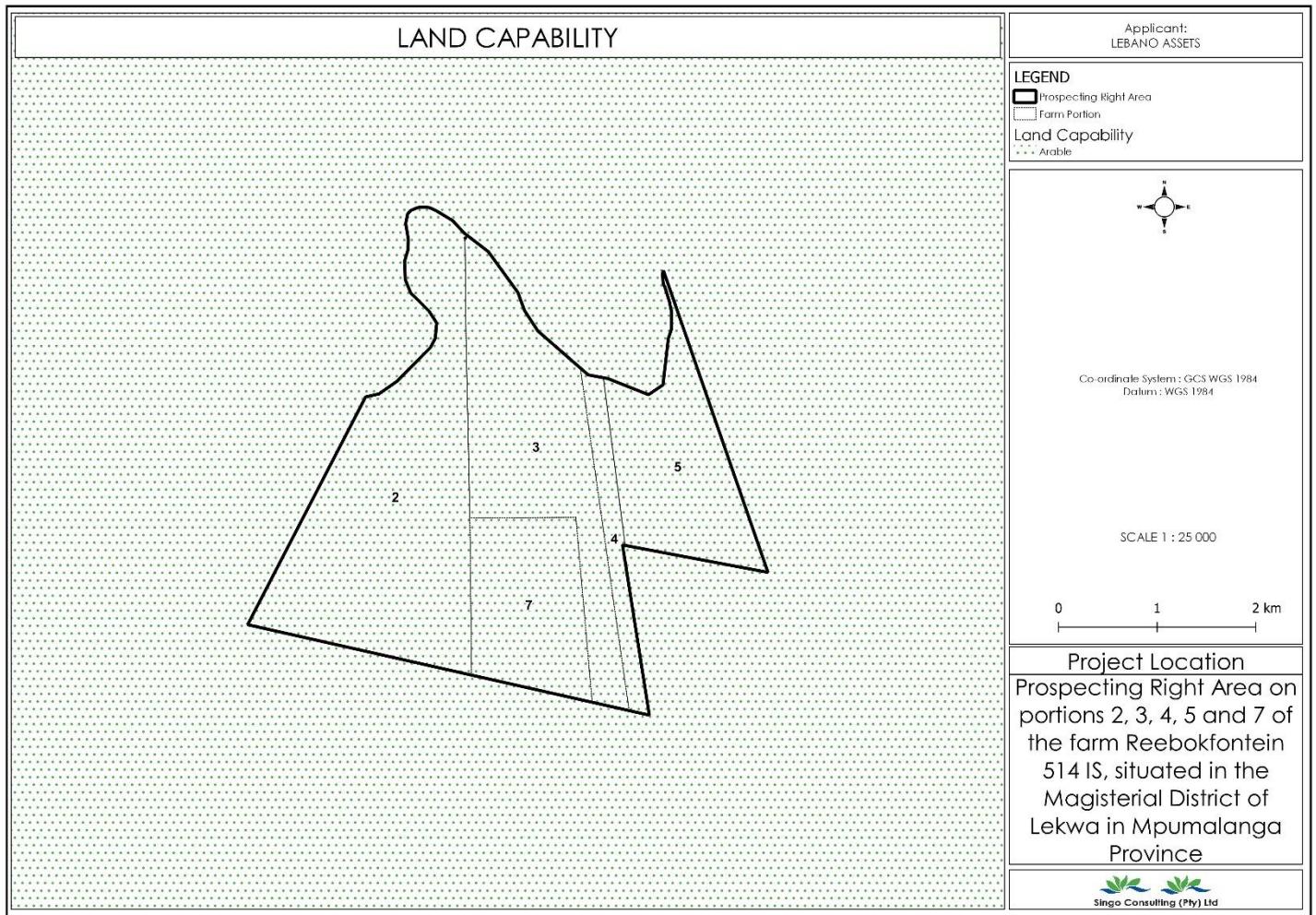
Appendix 1: Project Maps



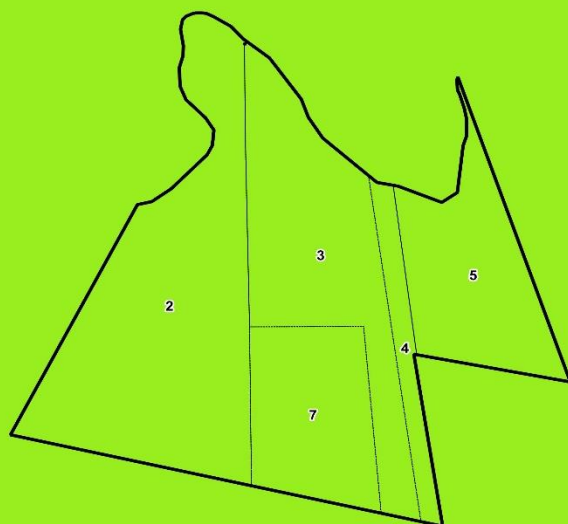








MOISTURE AVAILABILITY



Applicant:
LEBANO ASSETS

LEGEND

- Prospecting Right Area
- Farm Portion

Moisture Availability
Slight



Co-ordinate System : GCS WGS 1984
Datum : WGS 1984

SCALE 1 : 25 000

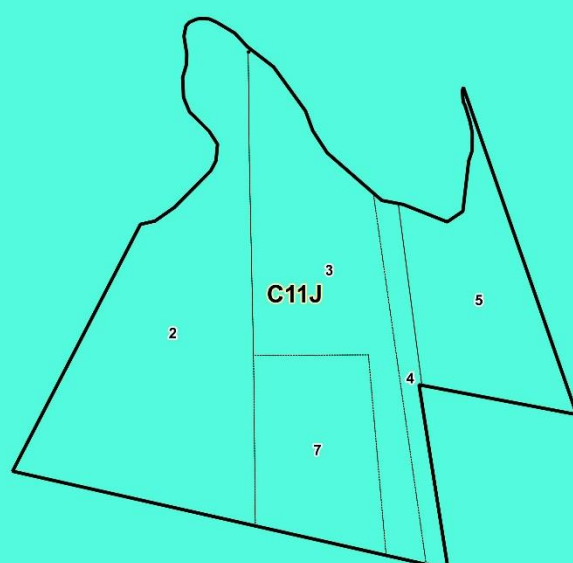
0 1 2 km

Project Location

Prospecting Right Area on portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS, situated in the Magisterial District of Lekwa in Mpumalanga Province



QUATERNARY CATCHMENT AND WATER MANAGEMENT AREA



Applicant:
LEBANO ASSETS

LEGEND

- Prospecting Right Area
- Farm Portion
- Quaternary Catchment

Water Management Area
Vaal



Co-ordinate System : GCS WGS 1984
Datum : WGS 1984

SCALE 1 : 25 000

0 1 2 km

Project Location

Prospecting Right Area on portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS, situated in the Magisterial District of Lekwa in Mpumalanga Province



Appendix 2: I & APs comments/ Email

Innocent, Monama

From: inus@ukhozi-enviro.co.za
Sent: Friday, 28 July 2023 09:38
To: innocent@singoconsulting.co.za
Cc: Tommy Olivier; prinsloogreyling@pwglaw.co.za; claasenj@mweb.co.za
Subject: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 5 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.

Good Morning Innocent,

Trust you are well? Please register uKhozi Environmentalists as an IAP on behalf of PWG Attorneys acting on behalf of their client Rheebofontein Trust.

Please send through all documents or comment either to us, or to PWG Attorneys.

Kinly acknowledge registration as an IAP for this project.



Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Friday, 28 July 2023 14:10
To: 'inus@ukhozi-enviro.co.za'
Cc: 'Tommy Olivier'; 'prinsloogreyling@pwglaw.co.za'; 'daasenj@mweb.co.za'; 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'mahlatsi@singoconsulting.co.za'; 'Nompumelelo, Ndhlovu'; 'Bongokuhle, Sibiya'
Subject: RE: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 5 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.
Attachments: Prospecting Right Area.kml; REG 2.2.pdf; Landowner Notification Letter_Rheebokfontein Trust.pdf
Importance: High

Good day,

Kindly be advised that your comment below has been well received, acknowledged, and will be integrated into the BAR and EMP.

Attached is KML, REG 2.2 map and landowner notification letter as requested.

Operation Hi Teka Hintwaswo

Innocent, Monama
Public Participation Officer
BSc. Environmental Science

+27 67 826 4182
innocent@singoconsulting.co.za

+27 13 692 0041 | +27 86 514 4103 | www.singoconsulting.co.za

Singo Consulting (Pty) Ltd
Protect & manage South African natural resources

Office 870, 5 Babalaka Street,
Tasbet Park Ext 2, Witbank, 1040

From: inus@ukhozi-enviro.co.za <inus@ukhozi-enviro.co.za>
Sent: Friday, July 28, 2023 9:38 AM
To: innocent@singoconsulting.co.za
Cc: Tommy Olivier <tommy@ukhozi-enviro.co.za>; prinsloogreyling@pwglaw.co.za; daasenj@mweb.co.za
Subject: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 5 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.

Good Morning Innocent,

Trust you are well? Please register uKhozi Environmentalists as an IAP on behalf of PWG Attorneys acting on behalf of their client Rheebokfontein Trust.

Please send through all documents or comment either to us, or to PWG Attorneys.

Kindly acknowledge registration as an IAP for this project.

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Tuesday, 25 July 2023 15:04
To: 'melanie@quantumenergy.co.za'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo Ndhlovu'; 'mahlati@singoconsulting.co.za'; 'Bongokuhle, Sibiya'
Subject: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 2, 3 & 4 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.
Attachments: REG 2.2.pdf; WinDeed_Reebokfontein 514 IS.pdf; Landowner Notification Letter_Brakvlei Eiendoms Trust.pdf
Importance: High
Flag Status: Flagged

Good day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of : **Lebano Assets (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting right together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) for the extraction of Coal on **portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS**, situated in the Magisterial District of Lekwa in Mpumalanga Province with **DMRE Ref: MP 30/5/1/1/2/18178 PR**. Kindly note that Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the Environmental Authorization processes by conducting Environmental Impact Assessment and Public Participation.

This notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that landowners and stakeholders must be notified of the Lebano (Pty) Ltd.'s intention to obtain Environmental Authorization for prospecting the above-mentioned minerals.

You have been identified as the landowner of **portion 2,3,& 4** of the farm **Reebokfontein 514 IS** (kindly refer to attached WinDeed results on the page 3). Your comments are critical in decision making at the Department of Mineral Resources and Energy (DMRE) concerning the proposed project.

We hope that this is in line with your office and your response will be highly appreciated. Should you have any queries regarding the proposed project, please do not hesitate to contact us on the contact details provided below.

 Singo Consulting (Pty) Ltd


Singo Consulting (Pty) Ltd

Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Tuesday, 25 July 2023 10:23
To: 'Cariendaassen@gmail.com'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Nompumelelo, Ndhlovu'; 'mahlatsi@singoconsulting.co.za'; 'Bongokuhle, Sibiya'
Subject: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 7 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.
Attachments: REG 2.2.pdf; WinDeed_Reebokfontein 514 IS.Pdf; Landowner Notification Letter_Taljaard Maria Cornelia Louisa.pdf
Importance: High

Good day, Mr. J.G. Claassen,

Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of : **Lebano Assets (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting right together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) for the extraction of Coal on **portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS**, situated in the Magisterial District of Lekwa in Mpumalanga Province with **DMRE Ref: MP 30/5/1/1/2/18178 PR**. Kindly note that Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the Environmental Authorization processes by conducting Environmental Impact Assessment and Public Participation.

This notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that landowners and stakeholders must be notified of the Anzopax (Pty) Ltd's intention to obtain Environmental Authorization for mining the above-mentioned minerals.

You have been identified as the landowner of **portion 7** of the farm **Reebokfontein 514 IS** (kindly refer to attached WinDeed results on the page 3). Your comments are critical in decision making at the Department of Mineral Resources and Energy (DMRE) concerning the proposed project.

We hope that this is in line with your office and your response will be highly appreciated. Should you have any queries regarding the proposed project, please do not hesitate to contact us on the contact details provided below.



Innocent, Monama

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Friday, 15 September 2023 09:26
To: 'henbasekantoor@gmail.com'
Cc: 'rudzani@singoconsulting.co.za'; 'kenneth@singoconsulting.co.za'; 'Bongokuhle, Sibiya'; 'Nompumelelo, Ndhlovu'; 'mahlati@singoconsulting.co.za'
Subject: RE: LANDOWNER INVITATION TO COMMENT ON A DRAFT BAR & EMPR FOR PROSPECTING RIGHT APPLICATION ON PORTIONS 2, 3, 4, 5, & 7 OF THE FARM REEBOKFONTEIN 514 IS. DMRE REF: MP 30 /5 /1 /1 /2 /18178 PR.

Importance: High

Good Day,

Receive warm greetings from Singo Consulting (Pty) Ltd.

This email serves as a kind reminder that we will be submitting the BAR & EMPr for the Prospecting right Application for Coal on **portion 2, 3, 4, 5 and 7** of the farm Reebokfontein 514 IS, situated in the Magisterial District of Lekwa in Mpumalanga Province with **DMRE Ref: MP 30/5/1/1/2/18178 PR** to the competent authority for adjudication.

Kindly note that we will be submitting without your comments/concerns on the shared Draft BAR & EMPr, unless these are received on or before the 19th of September 2023.



The image is a business card for Singo Consulting (Pty) Ltd. It features a blue header with the company logo and name. Below the header, there is a section for 'Operation Hi Teka Hinkwaswo' with a landscape photo. The main section is for 'Innocent, Monama', Public Participation Officer, BSc. Environmental Science, with contact details: +27 67 826 4182, innocent@singoconsulting.co.za, and www.singoconsulting.co.za. The card also includes a globe icon, a list of services, and social media links for LinkedIn, Facebook, and Instagram. The footer contains the company address: Office 870, 5 Balalaika Street, Tasbet Park Ext 2, Witbank, 1040.

From: Innocent, Monama <innocent@singoconsulting.co.za>
Sent: Wednesday, August 23, 2023 2:07 PM
To: 'henbasekantoor@gmail.com' <henbasekantoor@gmail.com>
Cc: 'rudzani@singoconsulting.co.za' <rudzani@singoconsulting.co.za>; 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>; 'Bongokuhle, Sibiya' <bongokuhle@singoconsulting.co.za>; 'Nompumelelo, Ndhlovu' <nompumelelo@singoconsulting.co.za>; 'mahlati@singoconsulting.co.za' <mahlati@singoconsulting.co.za>
Subject: LANDOWNER INVITATION TO COMMENT ON A DRAFT BAR & EMPR FOR PROSPECTING RIGHT APPLICATION ON PORTIONS 2, 3, 4, 5, & 7 OF THE FARM REEBOKFONTEIN 514 IS. DMRE REF: MP 30 /5 /1 /1 /2 /18178 PR.
Importance: High

Good day,

Receive warm greetings from Singo Consulting.

Kindly find and review the attached Draft BAR & EMPr for Prospecting Right Application, for prospecting of (Coal) commodity that may exist with extent of approximately 1518.270 Hectares on portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS, situated in the Magisterial District of Lekwa in Mpumalanga Province. Take note that you have 30 calendar days to review and forward any comments to be incorporated into the final BAR & EMPr report.

Note that the document is encrypted to prevent unauthorized access and distribution, kindly use the following pin for access; **SC2012**.

Operation Hi Teka Hinkwaswo

Innocent, Monama
Public Participation Officer
BSc. Environmental Science

+27 67 826 4182
innocent@singoconsulting.co.za

+27 13 692 0041 +27 86 514 4103 www.singoconsulting.co.za

Singo Consulting (Pty) Ltd
Protect & manage for best mining environment

Office 870, 5 Balalaika Street,
Tasbet Park Ext 2, Witbank, 1040

From: Innocent, Monama <innocent@singoconsulting.co.za>

Sent: Tuesday, July 25, 2023 9:55 AM

To: 'henbasekantoor@gmail.com' <henbasekantoor@gmail.com>

Cc: 'rudzani@singoconsulting.co.za' <rudzani@singoconsulting.co.za>; 'kenneth@singoconsulting.co.za' <kenneth@singoconsulting.co.za>; 'Bongokuhle, Sibiya' <bongokuhle@singoconsulting.co.za>; 'Nompumelelo, Ndhlovu' <nompumelelo@singoconsulting.co.za>; 'mahlatsi@singoconsulting.co.za' <mahlatsi@singoconsulting.co.za>

Subject: LANDOWNER INVITATION TO COMMENT ON THE PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORIZATION APPLICATION FOR PORTION 5 OF THE FARM REEBOKFONTEIN 514 IS, SITUATED IN THE MAGISTERIAL DISTRICT OF LEKWA IN MPUMALANGA PROVINCE.

Importance: High

Good day,

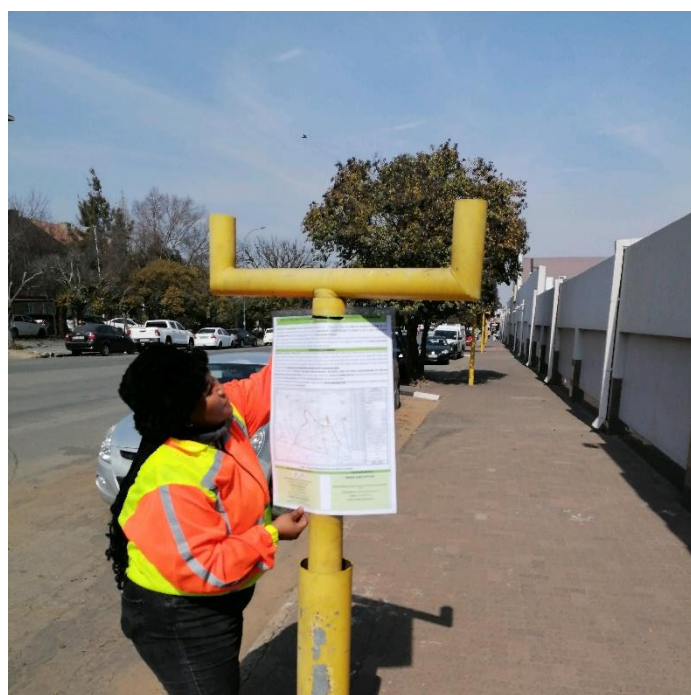
Receive warm greetings from Singo Consulting (Pty) Ltd.

Singo Consulting (Pty) Ltd on behalf of : **Lebano Assets (Pty) Ltd** hereby wishes to inform you that it has applied for a Prospecting right together with an Environmental Authorization to Mpumalanga Department of Mineral Resources & Energy (DMRE) for the extraction of Coal on **portions 2, 3, 4, 5 and 7 of the farm Reebokfontein 514 IS**, situated in the Magisterial District of Lekwa in Mpumalanga Province with **DMRE Ref: MP 30/5/1/1/2/18178 PR**. Kindly note that Singo Consulting (Pty) Ltd has been appointed as an independent Environmental Assessment Practitioner (EAP) to manage the Environmental Authorization processes by conducting Environmental Impact Assessment and Public Participation.

This notification is being given in compliance with the terms of: Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) (MPRDA), National Environmental Management Act, 1998 (Act No. 107 of 1998), and EIA Regulations (as amended, 07 April 2017) which requires that landowners and stakeholders must be notified of the Anzopax (Pty) Ltd's intention to obtain Environmental Authorization for mining the above-mentioned minerals.

Appendix 3: Acceptance Letter

Appendix 4:: Site Assessment and Site Notice Plugging.



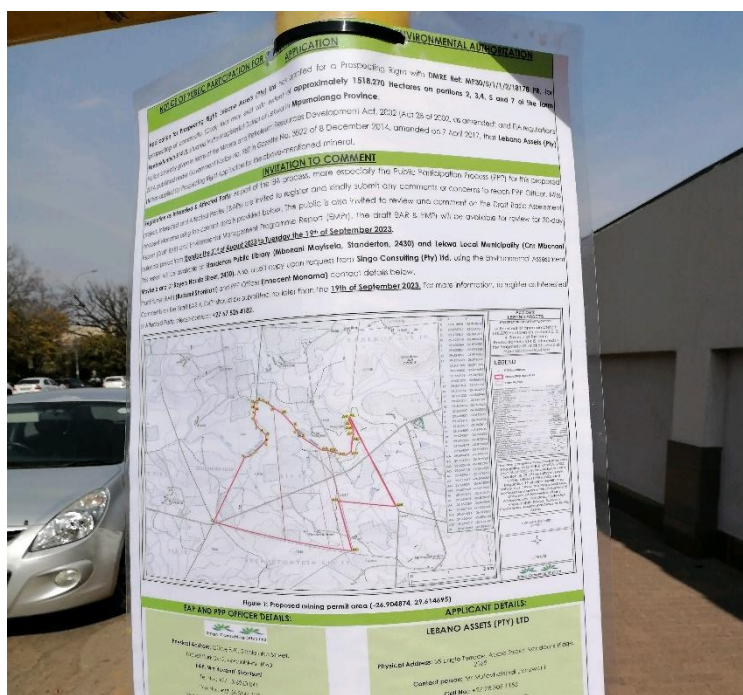
Standerton, 2430, South Africa

Standerton
Mpumalanga
South Africa

2023-07-24(Mon) 12:26(pm)

23°C

73°F



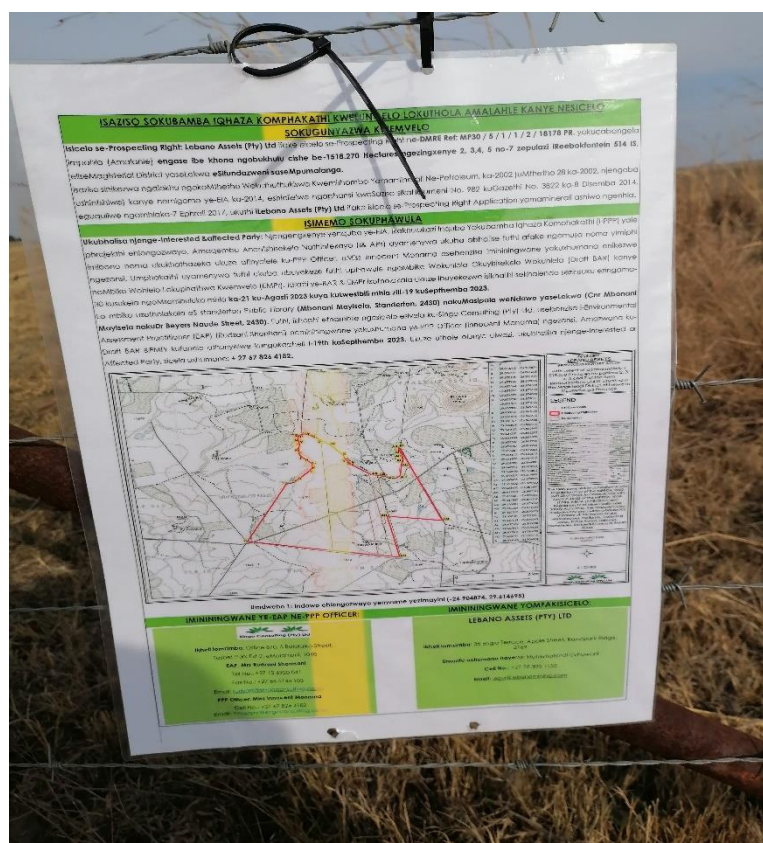
Standerton, 2430, South Africa

Standerton
Mpumalanga
South Africa

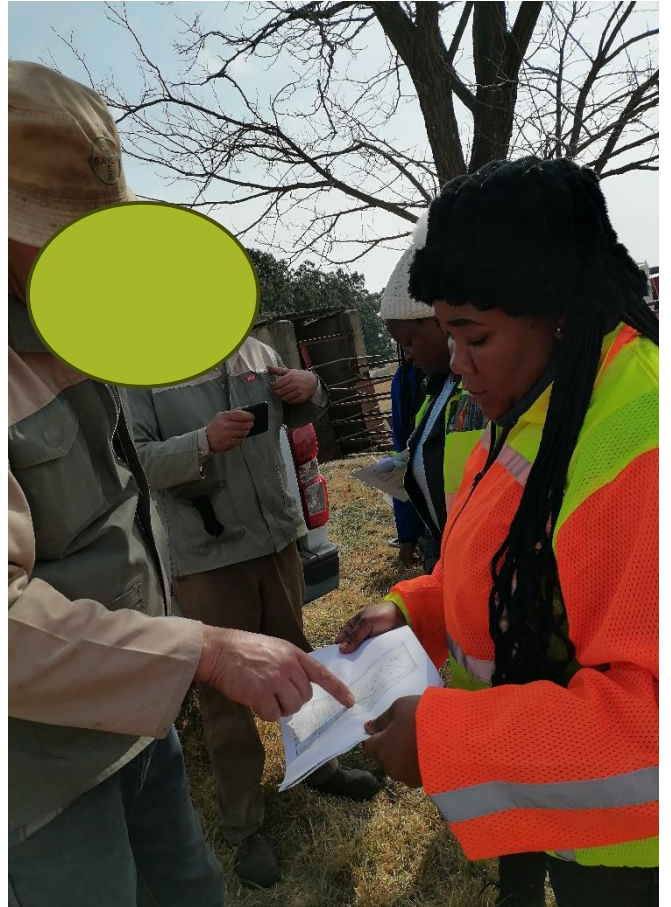
2023-07-24(Mon) 12:26(pm)

23°C

73°F



Appendix 5: Stakeholder Engagements.



Appendix 6: CV of the Principal EAP.

Appendix 7: Minutes of Community Meeting

MEETING WITH WARD 13 COMMUNITY(KATSPRUIT) AND SINGO CONSULTING CONSULTANTS

Date: 13/ 08/ 2023

Time: 11:00 AM

Venue: Katspuit farm

Attendees: See the register

Client: Lebano Assets (Pty) Ltd.

AGENDA:

Engagement with the community of Reebokfontein and Katsruit (Standerton, Ward 13).

Matter of the day:

Attendance register, Distribution of papers and Pictures by	
Nompumelelo Ndlhovu	
Introduction and Meeting Objectives by Innocent Monama(PPP Officer)	
<p>Background Information about the proposed prospecting right was rendered in terms of the Coal mineral applied, geographical location and activities associated with the proposed prospecting right that the applicant, in this case being Lebano Assets (Pty) Ltd requires to be authorised for. As a Public Participation Officers and Environmental Assessment Practitioners, our primary role is to promote strict adherence to the regulatory legislation, and our mandate is to ensure that prospecting is carried out in accordance with them. Agreements must be established with the landowners/title deed holders of the land. The objective of this meeting is to ensure that the families that will be affected by the prospecting operations has their concerns addressed prior the commencement of the mine and be given a fair chance to raise issues or concern and eventually equally benefit in the end if the project is authorised. We will share all concerns with Lebano Assets (Pty) Ltd to provide answers/solutions.</p>	
Questions and Answers	
Issue raised/ Comments	Response
<ul style="list-style-type: none">• If ever we as the community get to agree, won't the owner have a problem? Or is it all in the hands of the community?	<ul style="list-style-type: none">❖ The owners of the farms were consulted with the BID, Landwoner notification letter, and Windeed search. For most of them, it was via email, and for others, it was face-to-face consultation. We are currently waiting for responses from some owners who have responded thus far.

❖ If the community gets to agree and the landowner denies, what will be the way forward?	❖ The owners of the farms were consulted with the BID, Landowner notification letter, and Windeed search.
❖ How will prospecting coal affect them since they know mining involves blasting?	❖ Prospecting right involves drilling, so we are not going to blast.
❖ How long will it take to get feedback from DMRE? ❖	❖ It will depend on your grievances but even if they do not reply you immediately, you can still make follow-up.
❖ Are we going to get job opportunities? Because our backgrounds are bad.	❖ For the time being, there will be few job prospects; but, if the drilling crew requires assistance, the community will be given first consideration.
Recommendations	
❖ If this will bring Job opportunities, then we happily accept this project as a community, with open hands ❖ We really hope you get the coal, so we can get employed, and please Consider us just like how you are engaging us now.	
End-of-Minutes	

Appendix 8: Attendance Register

SINGO CONSULTING (PTY) LTD
 Meeting venue: **KATSPRUIT SUB 15 (STANBETON)**
 Date: **13 August 2023**
 Time: **10:00 - 11:00**

ATTENDANCE REGISTER

No.	Name & Surname	Designation	Company/andOwner/ Other(Specify)	Contact Details	Email Address	Signature
1	Feseka Mofung	CEO	CGTA	0186951933	umampaka@gmail.com	[Signature]
2	Sam Maseru	—	—	06500769	umampaka@gmail.com	[Signature]
3	MDMpinga NyemBE	—	—	0786805699	mdmpinga@gmail.com	[Signature]
4	Mbali Maphanga	—	—	083 656 4805	mbalimaphanga@gmail.com	[Signature]
5	Nompa Shongwe	—	—	0722776357	—	[Signature]
6	Pitso Tswela	—	—	0631645551	—	[Signature]
7	Mankhona Keteke	—	—	078360878	—	[Signature]
8	Mamkeli Hadebe	—	—	0713145687	dec.Hadebe@gmail.com	[Signature]
9	Makosi Sibole	—	—	0114201125	—	[Signature]
10	Timi Thwalo	—	—	0631645551	—	[Signature]
11	Lucas Ndlovu	—	—	0793851615	l.ndlovu	[Signature]
12	Richard Mavindisa	—	—	0635963536	R.M.Mavindisa	[Signature]
13	Khudwe Dhludhlu	—	—	0760734998	khudwe.dhludhlu@gmail.com	[Signature]
14	Andries Nkanyana	—	—	0760403720	—	[Signature]
15	Jacob Nkanyana	—	—	—	—	[Signature]
16	Nesi Mabatza	—	—	0780645449	Nesi.mabatza@gmail.com	[Signature]
17	Maria Mbatza	—	—	0783651475	—	[Signature]
18	Mafo Mole	—	—	08349515408	impostok@gmail.com	[Signature]
19	Mkosi Mthembu	—	—	0717128079	isaac.mkosi@gmail.com	[Signature]
20	Syabonga Mbonana	—	—	—	—	[Signature]
21	—	—	—	—	—	[Signature]

Singo Consulting (Pty) Ltd



Appendix 9: Comments sheets

REGISTRATION & COMMENT SHEET (DMRE Ref: MP 30/5/1/1/2/ 18177 P8)

Attention: Nompumelelo Ndlovu

Email: nompumelelo@singoconsulting.co.za

Title	Name	Mfankhama	Surname	Tsibetsi
Company				
Designation				
Address	255 Kyalapru Farm Standerton 2430			
Tel No	018 866 8758	Fax No		
E-mail		Cell No	018 866 8758	
I would like to receive my notifications by (mark with 'X')		Post	<input checked="" type="checkbox"/>	E-mail <input type="checkbox"/>
		Fax	<input type="checkbox"/>	
Please indicate why you would have an interest in the above-mentioned project.				
1. It's because we need a job so that we can live a better life. 2. It's because it will create job opportunities. 3. It's because many youths here are educated but they work on farms.				
Please provide your comments and questions here:				
* Then people that are living here when they find a coal they must move, they will get another place? * The company will find a place for cattle? * They will hire people who are living in that area? * The uneducated people will not get a job?				
Please feel free to attach a separate document				
Please add any person you think may be interested and affected parties:				
Full name	Mosingathi Mosi	Company		
Address	255 Kyalapru Farm			
E-mail		Contact No.	071 234 5701	

REGISTRATION & COMMENT SHEET (DMRE Ref: MP 30/5/1/1/2/ 18177 PR)

Attention: Nompumelelo Ndlovu

Email: nompumelelo@singoconsulting.co.za

Title	Name	<i>Deventer</i>	Surname	<i>Ha Jaka</i>
Company				
Designation				
Address	<i>255 Kwa-Siphant Farm 2430 Standerton</i>			
Tel No.	<i>0713145682</i>	Fax No.		
E-mail	<i>Deventer828@gmail.com</i>	Cell No.	<i>0721242188</i>	
I would like to receive my notifications by (mark with "X"):		Post	<input checked="" type="checkbox"/>	E-mail
				<input checked="" type="checkbox"/>
		Fax	<input type="checkbox"/>	

Please indicate why you would have an interest in the above-mentioned project.

- Because people will get job*
- If people are working they will be less crime*

Please provide your comments and questions here:

- Job will be open?*
- People that are around the mine what will be happen to them*

Please feel free to attach a separate document

Please add any person you think may be interested and affected parties:

Full name	<i>Thokozile Shiba</i>	Company	
Address	<i>Kwa-Siphant Farm 255</i>		
E-mail		Contact No.	<i>0792310456</i>

REGISTRATION & COMMENT SHEET (DMRE Ref: MP 30/5/1/1/2/ 18177 PR).

Attention: Nompumelelo Ndhlovu

Email: nompumelelo@singoconsulting.co.za

Title	Name	T. Ndhlovu		Surname	ndlovu
Company					
Designation					
Address	255 Kaahspruit farm 2430				
Tel No.			Fax No.		
E-mail			Cell No.	079 385 1615	
I would like to receive my notifications be (mark with "X"):			Post	<input checked="" type="checkbox"/>	E-mail:
					Fax:
Please indicate why you would have an interest in the above-mentioned project.					
if there is a mine people will get employed					
* When people get employed they will be low crime					
and also young people will not use drugs if they get employed					
Please provide your comments and questions here:					
if the mine is around we will get jobs or					
what can happen about animals and grave					
Please feel free to attach a separate document					
Please add any person you think may be interested and affected parties:					
Full name	Lindiwe		Company		
Address	255 Kaahspruit farm 2430				
E-mail			Contact No.	060 671 4283	

Appendix 10: POS



POSTNET SUBMISSION FORM

Document Number: PNA81950830471

Number of Doc Being Sent: (1)

Company Name: SINGO CONSULTING

Client Name: LEBRAND ASSETS (PTY) LTD

Type of Document Being Sent: DEAR & EMPR

Sender's Name (SC): INNOCENT

Signature: [Signature] Date: 25/08/2023

Postnet Receiver: Meister

Signature: [Signature] Date: 25/08/2023

Receiver 2 Information

Name: AGRICULTURE, Land Reform & Rural Development

Address: 27 Brown St Old Permanent Bldg
2nd Floor Office Bu Heismuit, 1200

Ejny Thwien

013 7540 701/020 4094 789

	<p>APPROVAL:</p> 
<p>Project Manager</p>	<p>Director</p>
<p>Date</p>	<p>Date</p>





POSTNET SUBMISSION FORM

Document Number: PNA31992488985

Number of Doc Being Sent: (1)

Company Name: Singo Consulting

Client Name: LEBANIA ASSETS (PTY) LTD

Type of Document Being Sent: HEAR & EMER

Sender's Name (SC): IMMOBILIT

Signature: [Signature] Date: 25/08/2025

Postnet Receiver: Maista

Signature: [Signature] Date: 25/08/2025

Receiver 2 Information

Name: Phumla Hlengi - MTPA

Address: Block 9, Room D

Maista, Gaborone, Botswana

013 284 0279

[Signature]

Project Manager

Date

[Signature]

APPROVAL:

Director

Date



[illegible]



POSTNET SUBMISSION FORM

Document Number PNA 81990720320

Number of Doc Being Sent (1)

Company Name SINGO CONSULTING

Client Name LEBAN & ASSETS (PTY) LTD

Type of Document Being Sent DBAL & EMPK

Sender's Name (SC) MORANT

Signature [Signature] Date 25-08-2023

Postnet Receiver Morisi

Signature [Signature] Date 28/08/23

Receiver 2 Information

Name RIA BARKHURST-SAHRAH

Address 38 1DA STREET

MENLO PARK, 0031

012 426 6200

[Signature]

Project Manager

Date

APPROVAL

[Signature]

Director

Date



To view the Standard Conditions of Carriage online, Please visit: <http://www.postnet.cn/xi/standard-conditions-of-carriage>



Office 870
5 Botetouk Street
Fairbairn Park Ext 2
Witbank



POSTNET SUBMISSION FORM

Document Number: PNA 81908016751

Number of Doc Being Sent: (2) TWO

Company Name: Singo Consulting

Client Name: Lebana Assets (Pty) Ltd.

Type of Document Being Sent: DBAR & EMPK

Sender's Name (SC): Innocent

Signature: [Signature] Date: 07-09-2023

Postnet Receiver: Minette

Signature: [Signature] Date: 7/9/23


Receiver 2 Information

Name: Sagana Masanda

Address: 23 Springbok Street

Standerfont, 2430

083 257 0466

 Project Manager Date: <u>07-09-2023</u>	APPROVAL: Director Date
---	---



Appendix 11 Pictures of the meeting.

