DRAFT BASIC ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

CORNELUS ABRAHAM BOTHMA

20 September 2022

mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

DRAFT 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).

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FILE REFERENCE NUMBER SAMRAD: FS 30/5/1/3/3/2/1/10352MP

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1. IMPORTANT NOTICE

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

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

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

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

It is furthermore an instruction that the Environmental Assessment Practitioner must process and interpret his/her research and analysis and use the findings thereofto 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.

2. 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 proposed activity is located and how the 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, biologi cal, social, economic, heritage , and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on the 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—
    (aa) can be reversed;
    (bb) may cause irreplaceable loss of resources; and
    (cc) 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.

PART A

SCOPE OF ASSSSMENT AND BASIC ASSESSMENT REPORT

3. Contact Person and correspondence address

a) Details of

i) Details of the EAP

Name of The Practitioner: M A Goliath

Tel No.: 0824523693

Fax No.: goliathmalcolm@yahoo.com

e-mail address: goliathmalcolm@yahoo.com

ii) Expertise of the EAP.

(1) **The qualifications of the EAP**
(With evidence). MMC/NHD/LSTD

(2) **Summary of the EAP's past experience**.
(In carrying out the Environmental Impact Assessment Procedure)
EXPERIENCE RELATING TO THIS APPLICATION

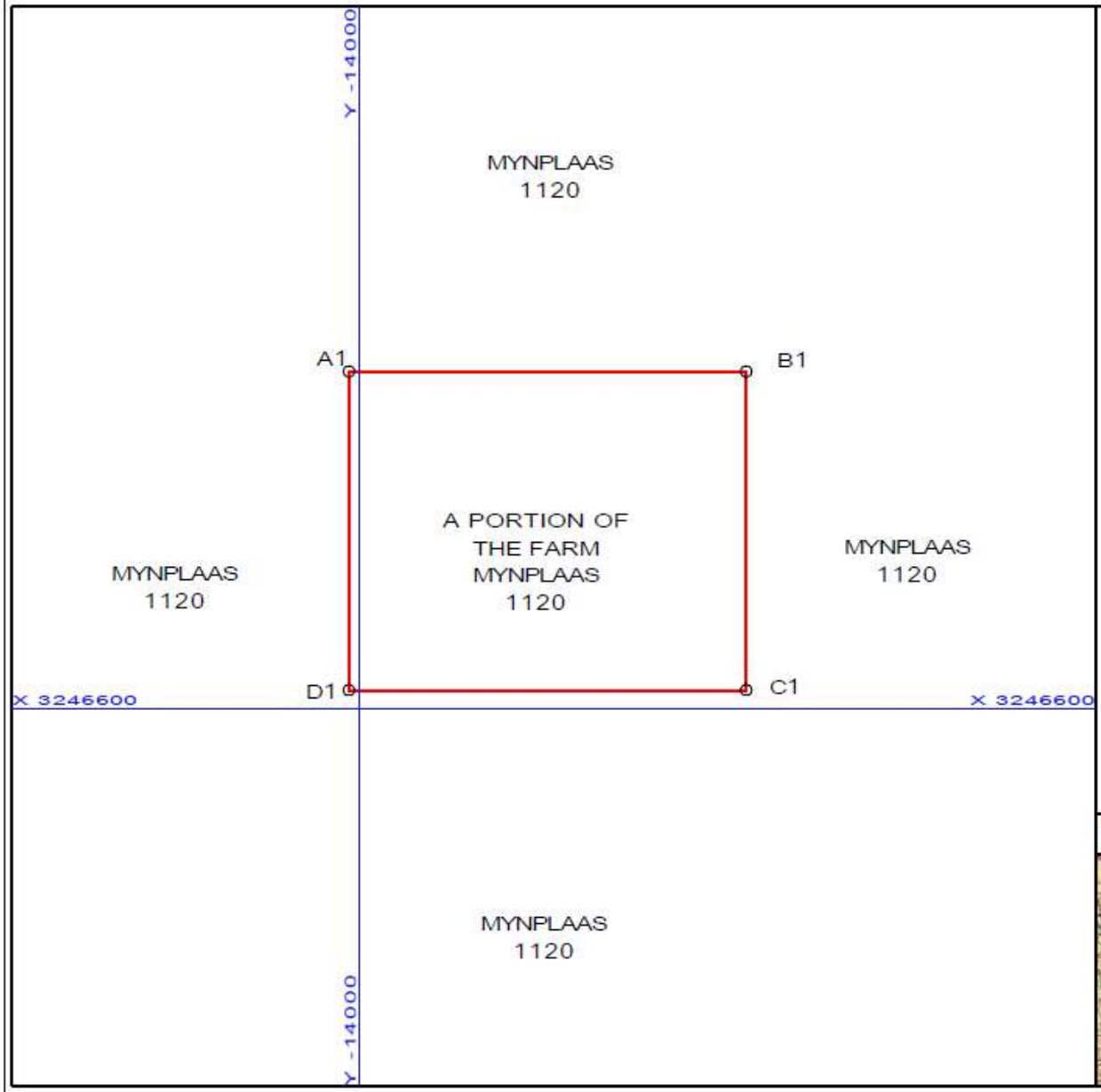
Environmental Impact Assessment Reports and Environmental Management Programme Reports Compiled:
Mynplaas 1120 Diamond Prospecting Right (Free State)
Alexanderfontein Diamonds Prospecting Right (Northern Cape)
Bucklands Diamonds Mining Right (Northern Cape)
Goodrock Manganese Treatment Mining Right (Northern Cape)
Tswelelang Diamonds Mining Right (Northern Cape)
Ventersvilla Diamonds Prospecting Right (Northern Cape)
Di Blesbokkantoor Diamonds and Gold Prospecting Right (Free State)
Longlands Prospecting Diamonds Right Application x 2 (Northern Cape)
Ormabex Diamonds Prospecting Right (Northern Cape)
Rietfontein 11 Diamonds Prospecting Right (Northern Cape)
Dorstfontein 10 Diamonds Mining Permit (Northern Cape)
Erf 42 Windsorton Diamonds Mining Permit (Northern Cape)
Erf 99 Windsorton Diamonds Mining Permit (Northern Cape)
Alexanderfontein Diamonds Project Prospecting Right (Northern Cape)
Drakenstein, Blaauwkrantz and Groenwater Manganese and Iron ore Prospecting Right (Northern Cape)
Caravan Park Diamonds Mining Permit (Northern Cape)
Doornpan Manganese Project Prospecting Right (Northern Cape)
Nek 106 Manganese Prospecting Right (Northern Cape)
Rorichshoop Diamonds Prospecting Right (Free State)
Koegas Diamonds Prospecting Right (Northern Cape)
Fonteintjie1 Diamonds Mining Permit (Northern Cape)
Fonteintjie2 Diamonds Mining Permit (Northern Cape)
Wego-Kapstewel 436 Manganese Processing Authorisation (Northern Cape)
GZ Mining-Kapstewel 436 Manganese and Iron ore Prospecting Right
CAB Beleggings Gravel Mining Permit (Northern Cape)

b) Location of the overall Activity.

Farm Name:	A Portion of Mynplaas 1120 (Mynplaas 931)
Application area (Ha)	658,9734
Magisterial district:	Ladybrand
Distance and direction from nearest town	20km Southeast of Tweespruit.
21-digit Surveyor General Code for each farm portion	F02100000000112000000

c) Locality map

(Show nearest town, scale not smaller than 1:250000).



C.A BOTHMA

MINING PERMIT APPLICATION

THE FIGURE A1, B1, C1, D1 AND A1 IS SITUATED ON A PORTION OF OF THE FARM MYNPLAAS 1120. THE ABOVE MENTIONED REPRESENTS 4.9572ha. ADMINISTRATIVE DISTRICT OF LADYBRAND, FREE STATE PROVINCE.

WITH REGARD TO A MINING PERMIT OF THE PROVISIONS OF SECTION 27 OF THE MINING AND PETROLEUM RESOURCES DEVELOPMENT ACT 2002 (No.28 OF 2002).

WGS 84 DATUM SURVEY SYSTEM WG 29°

S c a l e 1 : 3 5 0 0

CO-ORDINATES:

A1	Y-13 993.694	X+3 246 389.352
B1	Y-14 242.390	X+3 246 389.352
C1	Y-14 242.390	X+3 246 588.681
D1	Y-13 993.694	X+3 246 588.681

APPLICANT_____

DATE_____

REGIONAL MANAGER
DMRE MPUMALANGA _____

DATE_____

LOCALITY PLAN
SCALE 1 : 500 000

d) Description of the scope of the proposed overall activity.

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

(i) Listed and specified 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, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc…etc…etc.)	**Aerial extent of the Activity Ha or m²**	**LISTED ACTIVITY** (Mark with an **X** where applicable or affected).	**APPLICABLE LISTING NOTICE** ***(GNR 544, GNR 545 or GNR 546)***	**WASTE MANAGEMENT AUTHORISATION** (Indicate whether an authorisation is required in terms of the Waste Management Act). **(Mark with an X)**
Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Development Act, 2002 (Act No.28 of 2002), including- (a) associated infrastructure, structures and earthworks directly related to the extraction of a mineral resource: or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, , screening or washing: but exclude the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies (Activity 21 of Listing Notice 1	4.9784 ha	**X**	GNR 327 LN1, Activity 21	
NOT LISTED				
Plant Site	400m^2	**X**		
Workshop	200**m²**	**X**		
Stockpiles	500m^2	**X**		
Ablution Facilities	25m^2	**X**		
Chemical Storage	25m^2	**X**		
Diesel Storage	32m^2	**X**		
Site Office	25**m²**	**X**		
Domestic Waste Facility	16m^2	**X**		

(ii) Description of the activities to be undertaken

(Describe Methodology or technology to be employed, including the type of commodity to be prospected/mined and for a linear activity, a description of the route of the activity)

Period Requested for Environmental Authorisation:2 Years

Mining activities will be carried out in the following manners:
Mineral: Diamonds

Mining will be carried out in the following manner:
Methodology and Technology
C A Bothma (herein referred to as CAB) will undertake mining and related infrastructural activities on a Portion of the farm Mynplaas 1120, situated approximately 20 km Southeast to Tweespruit, Free State Province. The mining activities will entail the following as detailed below:
Mining activities will be undertaken in 3 different phases of which each is dependent on the preceding phase. Each phase will provide information that will determine whether the Mining activities should be continued or abolished.

Desktop Study
It is more of a literature review and research on all the completed work on the area, it also include accruing results from the companies that has already worked on the area.

Field Mapping
This involves the geologist walking the area and making observations which are then recorded on a map.

Mining
The topsoil where necessary would be removed and placed in a dedicated stockpile area. CAB would conduct its mining operation in the current existing mining pit and simultaneously treat the historical dumps.

The material would be excavated, loaded onto tipper trucks and report to the plant receiving bin, scrubber and a 6ft rotary pan. The diamond concentrate would be extracted through a process of Dense Medium Separation (DMS). The concentrate would be introduced through a grease table and final sorting of diamonds would be by hand.

A front-end loader would be commissioned to load the waste material and place on the dedicated stockpile area.

The pit would be secured by means of a safety berm around the active mining pit. Bench heights should not exceed 15m from one to the other level. Pit haul roads must not exceed 12 degrees and be constructed with a minimum width of 8m.

The study area has been disturbed by previous mining activity.

Final Rehabilitation
Rehabilitation of excavations will be done immediately as each bench is completed. Once mining is completed, the processing site will also be rehabilitated. Rehabilitated sites will be monitored to ensure vegetation growth re-occurs.

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (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);	REFERENCE WHERE APPLIED **(i.e. Where in this document has it been explained how the development complies with and responds to the legislation and policy context)**	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE POLICY AND LEGISLATIVE CONTEXT (E.g. In terms of the National Water Act:-Water Use License has/has not been applied for).
Constitution of South Africa (Act 108 of 1996)	Section 24: Environmental Right Section 25: Rights in Property Section 27: Water and sanitation Right	Consultations with interested and affected parties as within the Environmental Management Programme
Mineral and Petroleum Resource Development Act; 2002 (Act No.28 of 2002) (As Amended)	A Mining Permit application	A Mining Permit been applied for to DMRE Northern Cape Province
Conservation of Agricultural Resources Act (Act 43 of 1983) and Regulations	Section 5: Implementation of control measures for alien and invasive plant species. Section 6: Control measures Regulation GNR1048, published on 25 may 1984, in terms of CARA	Part of Environmental Management Programme
Environmental Conservation Act (Act 73 of 1989) and Regulations	Sections 21, 22,25,26 and 28: EIA Regulations, including listed activities Section 28A: Exemptions	Part of Environmental Authorisation and Environmental Management Programme.
Mine Health and Safety Act (Act 29 of 1996) and the Regulations Promulgated thereunder	Entire Act	Part of Environmental Management Programme
Hazardous Substances Act (Act 15 of 1973) and Regulations read together with NEMA and NEMWA	Definition, classification, use, operation, modification, disposal or dumping of hazardous substances	Part of Environmental Management Programme
National Environmental Management Act, 1998(Act 107 of1998) (as Amended) NEMA	Section 2: Strategic environmental management principles, goals and objectives Section 24: Foundation for Environmental Management frameworks. Section 28: require duty of care where reasonable measures are taken to prevent pollution or degradation from occurring, continuing or recurring, or, where this is not possible, to minimise and rectify pollution or degradation of the environment. Section 29: addresses the protection of workers refusing to do environmentally hazardous work. Section 30: addresses procedure to be followed in the event of emergency incident which may impact on the environment. Section 31: Access to environmental information and protection of whistle blowers.	Part of Environmental Management Programme
National Environmental	Section 32: Control of dust	Section 32

Management: Air quality Act (Act 39 of 2004)	Section 34: control of noise Section 35: control of offensive odours Regulation GNR551, published on June 2015 (amended Categories 1to 5 of GN 983) in terms of NEM:AQA (Atmospheric emission which have a significant detrimental effect on the environment) Regulation GN R283, published on 2 April 2015 in terms of NEM:AQA (National Atmospheric Emissions reporting Regulations) (Group C-Mines)	
National Environmental Management Act: Biodiversity Act, 2004 (Act 10 of 2004)	Section 52 of the National Environmental Management Act: Biodiversity Act (NEMBA) Act 10 of 2004) states that the ME/Minister is to list ecosystems that are threatened and in need of protection. Section 53 states that the Minister may identify any process or activity in such a listed ecosystem as a threatening process. A list of threatened and protected species has been published in terms of section 56(1) GG 29657 GNR 151 and GNR 152, Threatened or Protected Species Regulation.	To take note of
National Environmental Management: waste management Act (Act 59 of 2008)	Chapter 4: Waste management activities Regulation GN R 634 published on 23 August 2013 in terms of NEM:WA (Waste Classification and Management Regulations) Regulations GN R921 published on 29 November 2013 in terms of NEM:WA (Categories A to C-Listed activities) National Norms and Standards for the remediation of contaminated land and Soil Quality published on 2 May 2014 in terms of NEM:WA (Contaminated land regulations)	Comply
National Environmental Management Act: Protected Areas act (NEMPAA) Act 57 of 2003) provides for the protection of ecologically viable areas that are representative of South Africa's natural biodiversity and its landscapes and seascapes.	Chapter 2 lists all protected areas.	Take note of
The Free State Nature Conservation Act, Act No.9 of 2009 address protected species in the Free State and the permitapplication process	Address protected species in the Free State and the permitapplication process	Comply

National Water Act, 1998 (Act 36 of 1998)	In terms of the definitions contained in Section 1 of the National Water Act, Act No.36of 1998, a 'water resource' includes a watercourse, surface water, estuary or aquifer. "Aquifer" means a geological formation which has structures or textures that hold water or permit appreciable water movement though them. "Watercourse" means a river or spring; a natural channel in which water flows regularly or intermittently; a wetland, lake or dam into which, or from which, water flows; and any collection of water which the Minister may, by notice in the Gazette declare to be a watercourse, and a reference to a watercourse includes, where relevant, its bed and banks. The Minister of Water and Environmental Affairs is allowed to regulate activities which have a detrimental impact on water recourse by declaring them to be controlled activities. No person may undertake a controlled activity unless such person is authorised to do so by or under the Act. Duty of Care to prevent and remedy the effects of pollution to water recourse is addressed in Section 19. Section 20 address the procedure to be followed, as well as control of emergency incidents which may impact on a water resource. Recognised water uses are addressed in terms of section 21 and the requirements for registration of water uses are stipulated in Section 26 and 34.	Application will be lodged with the Department Water and Sanitation if triggered and after approval of the EMPr. Water would be used for dust suppression only which can be sources from the local municipality transported by water bowser.
Nature Conservation Ordinance (Ord 19 of 1974)	Chapters 2,3,4 and 6: nature reserves, miscellaneous conservation measure, protection of wild animals other than fish, protection of Flora	Take note of
In terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)	In terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), any person who intends to undertake "any development or other activity which change the character of a site – exceeding 5000m3 in extent" and the "construction of a ….. Linear development or barrier exceeding 300m in length" must at the very earliest stages of initiating the development, notify the responsible heritage resources authority, viz, the South African Heritage Resources Agency and /or Department of Environment.	Consultation included as per previous application to SAHRA
Conservation of Agricultural Resources Act, Act No 43 of 1983	Section 5 of the Conservation of Agricultural Resources Act, Act No 43 of 1983, prohibits the spreading off weeds and Section 6 and Regulation 15 and 15E of GNR 1048 address the implementation of control measures for alien and invasive plant species. This aspect has been addressed in the Environmental Management Programme. This Act also makes provision for the conservation of agricultural land.	Part of Environmental Management Programme
National Forest Act, 190 (Act No. 84 of 1998)	National Forest Act, 190 (Act No. 84 of 1998) and Regulations, Section 7: No person may cut, disturb, damage or destroy any indigenous living tree in a natural forest, except in terms of a license issued under Section 7(4) or Section 23: or an exemption from the provisions of this subsection published by the Minister in the Gazette. Sections 12 – 16 deal with protected trees, with the Minister having the power to declare a particular tree, a group of trees, a particular woodland, or trees belonging to a certain species, to be a protected tree, group of trees, woodlands or species. In terms of section 15, no person may cut, disturb, damage, destroy or remove any protected tree; or collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a licence granted by the Minister.	Take note
Subdivision of Agricultural Land Act, Act 70 of 1970	Control the subdivision, and in connection therewith, the use of agricultural land. It also controls long term leases over agricultural land. The applicant needs to apply for consent from the Department of Agriculture for these leases.	Take note

Section 17 of the Fencing Act, Act No.31 of 1983	States that any person erecting a boundary fence may clean any bush along the line of the fence up to 1,5m on each side therefore and remove any tree standing in the immediate line of the fence. However, this provision must be read in conjunction with the environmental legal provisions relevant to protection of flora.	Take note
Section 8 of the Atmospheric Pollution Prevention Act, Act No.45 of 1965	Section 8 of the Atmospheric Pollution Prevention Act, Act No.45 of 1965 regulating controlled areas, as well as section 27, with regard to dust control is still applicable.	Comply
The Occupational Health and Safety Act, Act 85 of 1993 GNR 22810f 1987-10-16	Environmental Regulations for Workplaces are applicable.	Comply
The South African Civil Aviation Regulation Act, Act 13 of 2009.	Controls marking of structures that may influence aviation through the Civil Aviation Technical Standards, SA-CATS-AH 139.01.33 Obstacle Limitations and Markings outside Aerodrome or Heliports. It states that any structure exceeding 45m above ground level, or structures exceeds 150m above the MEAN ground level, like on top of a hill, the mean ground level considered to be the lowest point in a 3km radius around such structure. Structures lower than 45m, which are considered as a danger or a potential danger to aviation, shall be marked as such when specified. Overhead wires, cables, etc., crossing a river, valley or major roads shall be marked and in addition, their supporting towers marked and lighted if an aeronautical study indicate that it constitutes a hazard to aircraft.	Take note
Basic Conditions of Employment Act (Act 3 of 1997) as amended	Entire Act	Comply
Land Survey Act (Act 8 of 1997) and Regulations	To control land surveying, beacons etc.	Take note
Traditional Leadership and Governance Framework Amendment (Act of 2003) and Council of Traditional Leaders (Act of 1997)	These two acts provide for the recognition and establishment of traditional communities and councils, and provide a framework for traditional leadership and the roles and responsibilities of this leadership.	The project is located on land under tribal control, the role of the tribal authorities will be particularly important during the stakeholder engagement participation process that will be undertaken.
National Development Plan (NDP)	Development in South Africa is guided by the NDP, which presents a shared long-term strategic framework within which more detailed development planning can take place to advance the long-term goals adopted in the NDP (National Planning Commission, 2011). The Plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and the reduction of inequality. The NDP 2030 sets a target of creating approximately 11 million new jobs and achieving an annual average economic growth rate of 5.4% by 2030.	The project will create approximately 8 jobs during the course of Mining and emphasis placed on the employment of women.
National Infrastructure Plan	The South African Government adopted a National Infrastructure Plan in 2012. The primary objective of the Plan is to transform the country's economic landscape, while simultaneously creating significant numbers of new jobs, strengthen the delivery of basic services, and promoting integration with other African economies.	To take note of.

f) Need and desirability of the proposed activities.

(Motivate the need and desirability of the proposed development including the need and desirability of the activity in the context of the preferred location).

The National Development Plan (NDP) 2030 provides the context for all growth in South Africa, with the overarching aim of eradicating poverty and inequality between people in South Africa through the promotion of development. Two of the objectives of the NDP are to increase the proportion of adults working in rural areas and reduce the unemployment rate. The proposed project is considered to be in line with the above-mentioned objectives, as outlined in the NDP, as it will facilitate economic activity / growth in rural areas and is conducive to job creation.

The prospecting operation will provide employment to the local and surrounding communities of which the labour sending area can be considered to be from Tweespruit and Thaba Patchoa.

The study area further does not have any human settlements that will impact on the people and their activity. Key contribution of the project:

- Creation of employment opportunities to the local community in the mining sector
- BEE suppliers of consumables to the project
- Engagement of women in mining
- Ensure the optimal use of mining resources
- Improve the lack of entrepreneurship
- Address underutilization of the region's natural resources and economic opportunities
- Positive impact of the of the prospecting activities include:
- Employment through the life of the prospecting program.
- Skills transfer of employees through training which will be used after the end of lifespan of the prospecting program; and
- Poverty Eradication through income

There is a large economic impact of diamond mining in South Africa as diamonds contribute a lot of money to the economy, which provides better living conditions. Diamonds today are mined in about 25 different countries but around 49% of diamonds come from South Africa.

This section taken from STATS SA Mining Industry 2019

Summary of findings for the year 2019
Income Table A – Income in the mining industry, 2012-2019

Type of mining	2012		2015		2019	
	R million	% contribution	R million	% contribution	R million	% contribution
Mining of coal and lignite	96 097	24,4	133 451	29,8	156 145	28,3
Mining of gold and uranium ore	66 957	17,0	64 026	14,3	63 388	11,5
Mining of iron ore	68 061	17,3	60 687	13,5	65 321	11,8
Mining of chrome ore	11 412	2,9	16 951	3,8	20 983	3,8
Mining of manganese ore	10 254	2,6	17 196	3,8	33 448	6,1
Mining of platinum group metal ore	106 555	27,2	108 912	24,3	153 688	27,9
Dimension stone (granite, marble, slate and sandstone)	630	0,2	1 146	0,3	2 487	0,5
Limestone and limeworks	2 398	0,6	2 800	0,6	3 775	0,7
Other stone quarrying, including stone crushing and clay and sandpits	10 289	2,6	10 753	2,4	11 713	2,1
Mining of diamonds (including alluvial diamonds)	8 694	2,2	15 056	3,4	15 703	2,8
Other chemical and fertiliser mineral mining	3 330	0,8	5 889	1,3	6 048	1,1
Extraction and evaporation of salt	280	0,1	207	0,0	195	0,0
Other mining activities and service activities incidental to mining	7 822	2,0	10 294	2,3	18 465	3,3
Other minerals and materials n.e.c.	582	0,1	733	0,2	704	0,1
Total	**393 361**	**100,0**	**448 101**	**100,0**	**552 063**	**100,0**

The total income for the mining industry in 2019 was R552,1 billion. The total income represents an increase of 5,4% per annum over the income reported in the corresponding survey of 2015 (R448,1 billion). 'Mining of coal and lignite' earned the largest share of income (R156,1 billion or 28,3%), followed by 'mining of platinum group metal ore' (R153,7 billion or 27,9%), 'mining of iron ore' (R65,3 billion or 11,8%) and 'mining of gold and uranium ore' (R63,4 billion or

11,5%). Comparing 2015 and 2019, large increases were reported for ‘mining of platinum group metal ore’ (+R44,8 billion), ‘mining of coal and lignite’ (+R22,7 billion), ‘mining of manganese ore’ (+R16,3 billion) and ‘other mining activities and service activities incidental to mining’ (+R8,2 billion). However, ‘mining of gold and uranium ore’ reported a decrease (-R0,6 billion). Between 2012 and 2019, the ‘mining of coal and lignite’ group gained the biggest percentage share of income (+3,9 percentage points) (from a percentage contribution of 24,4% in 2012 to 28,3% in 2019). The ‘mining of gold and uranium ore’ and ‘mining of iron ore’ groups each lost the biggest percentage share of income over the same period (-5,5 percentage points in each case)

Table C – Employment as at the end of June in the mining industry, 2012–2019

Type of mining	2012		2015		2019	
	Number	% contribution	Number	% contribution	Number	% contribution
Mining of coal and lignite	91 605	17,0	110 818	21,7	108 717	21,1
Mining of gold and uranium ore	144 084	26,8	104 369	20,4	101 993	19,8
Mining of iron ore	26 975	5,0	25 536	5,0	26 270	5,1
Mining of chrome ore	20 540	3,8	17 144	3,4	21 899	4,3
Mining of manganese ore	6 812	1,3	7 279	1,4	10 032	1,9
Mining of platinum group metal ore	206 764	38,5	206 957	40,4	198 574	38,5
Dimension stone (granite, marble, slate and sandstone)	1 741	0,3	1 801	0,4	3 954	0,8
Limestone and limeworks	3 384	0,6	2 679	0,5	3 571	0,7
Other stone quarrying, including stone crushing and clay and sandpits	15 131	2,8	9 105	1,8	10 882	2,1
Mining of diamonds (including alluvial diamonds)	11 943	2,2	15 410	3,0	14 488	2,8
Other chemical and fertiliser mineral mining	2 023	0,4	1 555	0,3	1 943	0,4
Extraction and evaporation of salt	741	0,1	444	0,1	488	0,1
Other mining activities and service activities incidental to mining	5 489	1,0	7 189	1,4	10 570	2,1
Other minerals and materials n.e.c.	912	0,2	836	0,2	1 468	0,3
Total	**538 144**	**100,0**	**511 122**	**100,0**	**514 859**	**100,0**

The total number of persons employed in the mining industry as at the end of June 2019 was 514 859. This represents an increase of 0,2% per annum over the employment recorded in 2015. In 2019, ‘mining of platinum group metal ore’ employed the largest number of persons (198 574 or 38,5%), followed by ‘mining of coal and lignite’ (108 717 or 21,1%) and ‘mining of gold and uranium ore’ (101 993 or 19,8%). Employment in the mining industry declined from 538 144 in 2012 to 514 859 in 2019 (a loss of 23 285 jobs). The biggest losses in jobs were recorded in ‘mining of gold and uranium ore’ (a loss of 42 091 jobs), ‘mining of platinum group metal ore’ (a loss of 8 190 jobs) and ‘other stone quarrying, including stone and clay and sandpits’ (a loss of 4 249 jobs). The biggest gains in jobs were recorded in ‘mining of coal and lignite’ (a gain of 17 112 jobs) and ‘other mining activities and service activities incidental to mining’ (a gain of 5 081 jobs)

The farm Mynplaas 1120 has kimberlitic sources which can be described as 2 kimberlitic pipes and 3 fissure outcrops. This application is over one of the open pits and a portion of a fissure, which historically have been mined as the Karmel Project. The open pit side walls indicate that mining can still be performed as the exposed strata demonstrate great potential for diamond mining. Mining of the resource would provide much needed employment to the local community (Tweespruit and Thaba Patchoa).

The secondary and tertiary spinoffs for the area in terms of the purchase of prospecting consumables, is an added advantage to do this development

A total of at least 17 job opportunities would be created.

Analysis of the need of the project

The Free State Province is known for its rich mineral deposits and has been an active mining zone in South Africa for various commodities including but not limited to gold, diamonds, gravel, sand and aggregate, calcrete and limestone.

The knowledge gap about site economic geology would be closed and thereafter sustainable land use can be established.

The mining activities will determine the grade and also the mine life span from which socio-economic benefits can be realized, should mining be found to be viable and outweighing agricultural returns in terms of jobs, community socioeconomic standards after mining, thus benefitting the local community and the broader Free State Province and also making contribution to the National GDP, then mining rights application can be initiated of which the environmental studies will then be undertaken as required by all relevant Legislations to ensure that the natural environment is also protected.

Analysis of the 'desirability' of the project

Mining activities are informed by the existing knowledge regarding diamond reserves and as such there is always a high possibility that a mine (mining right) will be established.

Mining is an integral contributor to South African GDP and Labour Force.
According to Northern Cape CBA Map of 2016 about 15% of the site is located on the Ecological Support Area (ESA). However, it should be noted that mining activities are of short- term duration and impacts are minimal and can be managed and reversed. The site is an ideal mining area based on the following aspects:

- No human settlements areas.
- Low environmental sensitivity; and
- High confidence in the presence of ore deposits.
- Mining includes invasive activities (Deepening of the current open pit and widening of the current access roads), but have manageable environmental impacts. The disturbances will be limited to active areas and sensitive areas marked as a "No-Go". Sensitive environmental areas include wetlands, river systems, graves and dwellings). The access roads in cases where they should be created will also be outside sensitive features buffers.

Mining itself is a capital-intensive venture and requires the financial commitment of investors, which is high risk. The evaluation of a project aims to determine whether mineralization occurs and if so, does it occur in economically extractable quantities. Initially these are measured in tonnage and grade. Auxiliary benefits of mining include contributions to local economies, and communities, tax benefits and occasionally royalties.
While geological studies are integral to mining, mining also includes, amongst others, infrastructural, environmental, socio-economic, financial evaluation and metallurgical studies thereby encouraging the national research and educational sectors.

g) Motivation for the overall preferred site, activities and technology alternative.

This site will have the least disturbance and risk to the environment. A low impact operation with minimal destruction to the fauna and flora and interference with current activities on the farm. There is no alternative prospecting method which will be more effective in terms of cost and protection of the environment. The technology applied is a standard in the kimberlitic mining fraternity.
The method of open drilling, trenching and pitting with continued backfill will ensure that the rehabilitation process is kept within limitations.

h) 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.

i) Details of the development footprint alternatives considered.

With reference to the site plan provided as Appendix 4 and the location of the individual activities on site, provide details of the alternatives considered with respect to:

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;

(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

.

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

The proposed site (a portion of the farm Mynplaas 1120, Magisterial District of Ladybrand, Free State Province), was preferred based on the historical geological data through past mining. It confirms the presence of the mineral resources through the existing open pit. The open pit stratum confirms the presence of the Kimberlitic material.
There are no human settlements within the proposed site which would often create social impacts should resettlement be considered.

NO OTHER SITES WERE ASSESSED.

(b) The type of activity to be undertaken;

The mining activities to be undertaken were assessed and chosen based on site geological setting.
It is further supported by the fact that vegetation does not have to be removed for the mining operation as it would be in the historical pit. Features such as wetlands would be avoided.

(c) The design or layout of the activity;

The design of the activity in this project refers to the location of the open pit area in relation to the plant and the stockpile areas. Historical mining activity has already been undertaken and all infrastructure would be placed and erected in the already disturbed areas.

(d) The technology to be used in the activity.

Technology was assessed to determine which would bring reliable and desirable results. The following factors were evaluated when considering technology:

Mineral Resource burial depth

Technology choice is also based on the depth burial of the targeted stratum. The final depth of the open pit is dependent on the specific burial depth.

(e) The operational aspects of the activity

The mining activities are carried out in phases with each subsequent phase dependent on the success predecessor. Therefore, strict operational scheduling must be adhered to.

Mining
The technology used in this activity will be open pit mining by means of benching through the employment of excavators to deepen the current open pit. The material would be loaded onto dump trucks and transported to the screening and plant.

This activity is the most critical part of the proposed mining activities and therefore the option of not implementing the activity cannot be considered.

Other operational aspects:

Stockpiles
The topsoil where required removed and kept on a topsoil stockpile for final rehabilitation

of the disturbed area. This will be kept to a minimum as all infrastructure are of a mobile nature and above ground, supported by areas of mining is in the current open pit. Final product be kept on a production stockpile already disturbed through past mining. (TOTAL STOCKPILE AREA 500m^2) No specific technology is used other than ensuring no contamination of the topsoil. If this activity is not implemented the mining activities cannot continue fluently affecting the cost effectiveness of the mining operation. The option of not implementing the activity cannot be considered.

Water Bowser as Water Storage Facility
The primary operational aspect of the activity is to store water for dust suppression for the screening plant and wetting down the roads.

Mining
The technology used in this activity will be open pit mining by means of benching through the employment of excavators to deepen the current open pit. The material would be loaded onto dump trucks and transported to the screening and processing plant.

This activity is the most critical part of the proposed mining activities and therefore the option of not implementing the activity cannot be considered.

Mobile Office Site

The office block will be installed and have an approximate footprint of 0.0040 ha. This site will house several units including general office, Mine Health and Safety office and first aid room.

- The office site will be mobile offices fitted with relevant equipment/furniture for its specific task.
- All administrative activities, storing of files, company financials and discussions will be occurring within this facility.
- The best option is to keep the offices within the mining premises for proper managing, activity regulation, accident and damage control as well as optimizing productivity.

Ablution Facility

Contractual agreements will be made with a service provider and basic flushing chemical toilets installed.
These facilities are to support the sanitation protocol of the mining employees. During the mining operation mobile chemical toilets will be available. Footprint 0.0025ha

The implementation of this structure and related activities is absolutely compulsive and enforced by the Basic Conditions of Employment Amendment Act, 2013 (Act 20 of 2013) in conjunction with the Basic Conditions of Employment Act, 1997 (Act 75 of 1997), Basic Conditions of Employment Amendment Act, 2002 (Act 68 of 2002) and Basic Conditions of Employment Amendment Act, 2003 (Act 52 of 2003). Footprint 0.0025ha

Workshop/ Vehicle Storage

Footprint 200m^2

The parking area is designed to house designated vehicle parking, concrete constructed wash-bay, vehicle maintenance workshop and an auto parts storage facility.

Drip pans will also be readily available for vehicles during off-time. No other technologies will be used during this activity.

The parking area will be sectioned and demarcated for the various activities. All vehicles inclusive of visitors' vehicles, employee vehicles and heavy vehicles will be parked in this area within their different sections. All vehicles will however be required to adhere to the reversed parking policy for the safety of all vehicles in the case of an emergency.

Should this activity not be implemented pollution and chemical spill control cannot be optimally managed as well as the informal parking of other normal vehicles can lead to difficult driving environment for heavy vehicles. For this reason and legislative requirements this activity cannot be excluded as a mining related activity and thus planned to be implemented during the construction phase of the Mining activities.

Diesel Storage

The diesel storage facility will be active for the duration of the mining activity and have a footprint of 0.00032 ha.

The technology used shall be of the highest standards provided by the contracting diesel/fuel agency. The actual volume of the tank will be 5000l, but it is compulsive that the operation is supplied with a diesel tank already equipped with a leak-proof bay to prevent any ground contamination should the tank be leaking by fault or bursting.

Diesel will be kept within these containers for re-fueling purposes during the Mining activities. The contracting agency will be refilling these tanks on a regular basis and only then will the tank be inspected and maintenance procedures carried out.
Machinery will be parked on a cement slap next to the tank for re-fueling activities. This cement slap shall be contracted at a gradient with a run-off channel leading to a sump for impact prevention should any accidental spillage occur. The sump will also be cleaned and maintained on a regular basis by the contracting agency. Taking the proximity of the town into consideration the option on not implementing the activity was considered but after careful consideration regarded as a no-go option.

Domestic Waste Facility

The technology used shall be of local municipal standard including a tip-proof and scavenger proof bin. All domestic waste on site will be place within these bins to keep the area clean and litter free.
The option of not implementing the activity cannot be considered and should the activity not be implemented, a greater risk of littering results. (16m^2)

Water requirement:

The water requirement can be met through sourcing from current boreholes. It would be transported to site by water bowser and into a Jo-Jo holding tank for the domestic use.

The water usage onsite is expected to trigger the NWA Listed activities which would require a water use application.

Waste Management:

The principle of Reduce, Re-use and Recycle must be always implemented. The waste must be separated at source and disposed at an appropriate waste management facility.

Access Roads:

Due to the historical disturbance on the adjacent property. No new roads need to be established to gain access to the mining site. Grading of the current roads would be required.

No new roads will be developed without prior communication and approval from the Landowner (Applicant).

(f) The option of not implementing the activity.

The option of not implementing the activity also referred to as a “No-Go” option ensures that the current status quo remains. There is high potential for ore reserves to be proven of significance to establish a mine. Should the project not be authorised the potential socioeconomic benefits associated with establishing a mine will not be realised.

The local economy being is supported by very few economic activities and therefore have very limited job opportunities. The success of mining activities will boost local economy not only through job creation but demand for secondary services as well such as food supply boosting local SMMEs.

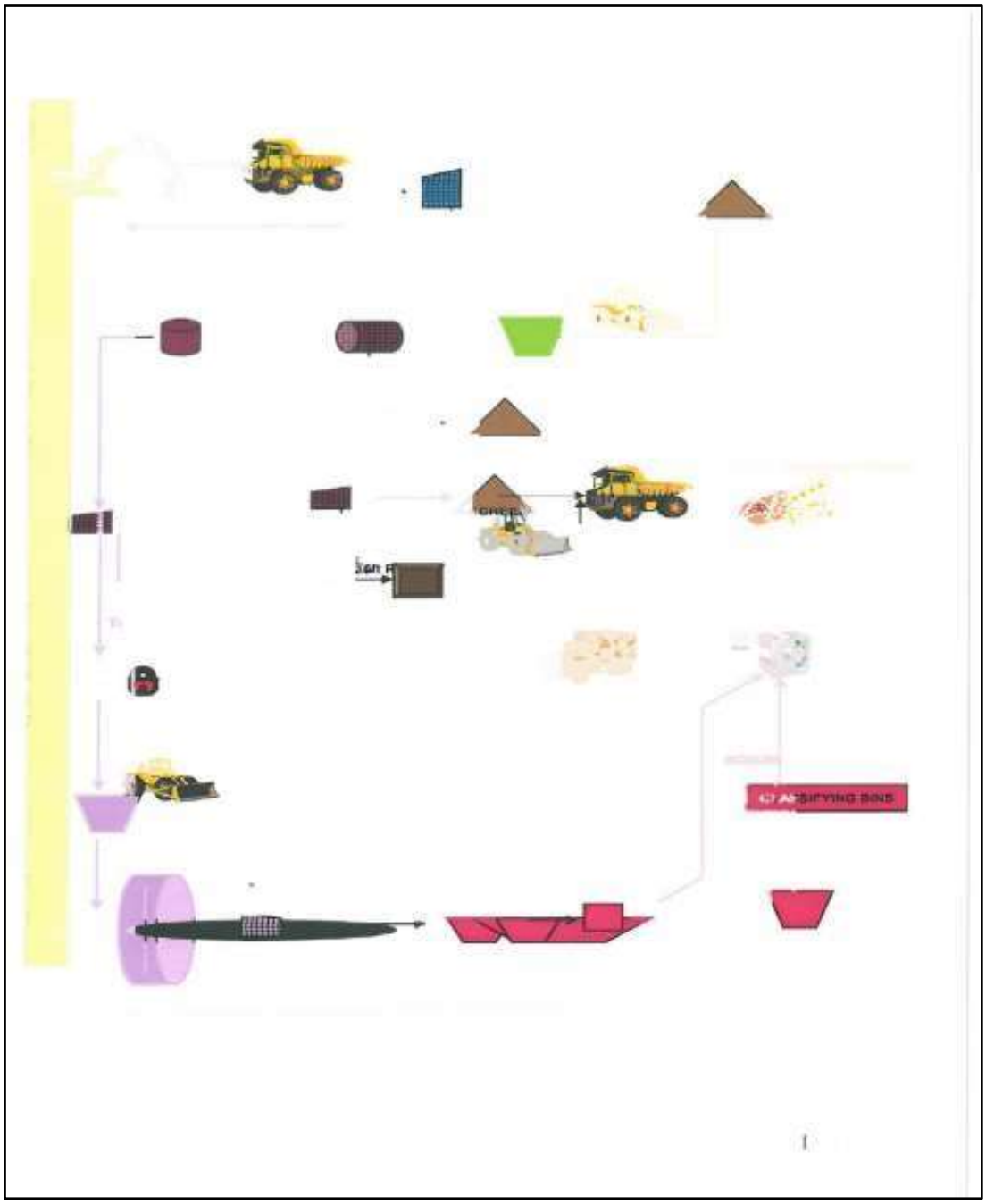


Figure 1: Schematic Process Outlay

ii) Details of the Public Participation Process Followed

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

(1) ADVERTISEMENT

An advert has been placed in the Volksblad to inform and invite Interested and Affected party for participation to the PPP. **APPENDIX A**

(2) PUBLIC NOTICE BOARD AND PLACEMENT OF BASIC ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

Notice boards will be placed at conspicuous places on the fence of the study area, the farm entry gate the Local Municipality Offices and Library in Tweespruit, the Municipal Office in Thaba Pachoa. **APPENDIX B**

(3) PUBLIC MEETING

A Public meeting was held 12:00 on the 12th of August 2022. Minutes and an attendance register have been kept. In BAR uploaded as **APPENDIX C. Comments and input under iii Summary of issues page 23-28**

(4) TELEPHONIC CONVERSATIONS

Telephonic conversations will be held as communication medium when preferred by any Interested and Affected party.

(5) Email CORRESPONDENCE

Emails as a consultation medium were used where such details are known and preferred to by the participant in the process. **APPENDIX D**

(6) ORGANS OF STATE

All stakeholders and I&AP's have been notified of the report's availability and to make presentations within 30 days of receipt. Hardcopies of the report have been submitted to affected organs of state and relevant authorities. **APPENDIX E**

iii) Summary of issues raised by I&Aps

(Complete the table summarising comments and issues raised, and reaction to those responses)

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Date Comments Received	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.
AFFECTED PARTIES					
Landowner/s	X				
A copy of the Draft BAR was forwarded to the landowner Mr. C Bothma for comments. Telephonicand email communication done. The landowner is also the applicant.	X		No Issues raised on the proposed activity. The impacts explained to the farm owner	No Response required from EAP	N/A
Lawful occupier/s of the land					
Landowner is the occupier and applicant.	X		No Issues raised on the proposeda	No Response required from EAP	N/A

Landowners or lawful occupiers on adjacent properties			Telephonic conversations and emails where preferred. Registered letters as preferred medium.		
John Parr (Farm Belmont) represented by Barry Newton **barrynewts@gmail.com 0845883566**	**X**		Awaiting input		
Inkatha Makuk (Farm Gilboa) **0824069023**	**X**	20/09/2022	Consult on 20 September 2022. How were the notifications done? No objection to application.	Mr. Goliath explained the process as being considered as a Part A (application for environmental authorization) and Part B the Basic Assessment Report stage which is the current stage. The Draft BAR was placed at the local municipal office in Tweespruit and Thaba Pachoa. Notice boards was placed at the municipal offices both Tweespruit and Thaba Pachoa, the Tweespruit library and around the farm fences and entry gates.	
Willem (Farm Bethal) **0785392047**	**X**		Unable to locate or reach		
Dr, John vd Merwe represented by James Visser 0721114113	**X**		Consult on 20 September 2022. No objection to application. In support of application.		
Municipality **The Municipal Manager** **Post Office Box 76** **Tweespruit** **9770** **Tel 051 9630061**	**X**		No input received. Registered letter with BAR forwarded.		

Competent Authority **DMRE** **BY SAMRAD**	**X**	20/09/2022	Screening report to be signed by compiler Locality map at a scale not smaller than 1:250 000 to be attached to the revised EA application. Undertaking under oath by EAP as part of the EA application	Screening report signed by the compiler and uploaded on SAMRAD on 8 August 2022. Locality map at a scale not smaller than 1:250 000 to be attached to the revised EA application. Undertaking under oath to be manually submitted and uploaded on SAMRAD	This is during the Environmental Application phase. It will be addressed with an revised application
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA					
DWS **Private Bag X313** **Pretoria** **0001** **Tel 012 336 8387/7500/0800200200** Registered mail will be sent	**X**		No input received. Registered letter with BAR forwarded		
Communities					
Communities	**X**		Public Meeting		
Dept. Land Affairs					
Registered mail will be sent and Telephonic conversations done	**X**		Registered letter will be forwarded. (Draft BAR)		
Traditional Leaders					
No Traditional Leaders					
Dept. EnvironmentalAffairs **Private Bag X20801** **Bloemfontein** **9300** **Tel 051 4049600**	**X**		No input received. Registered letter with BAR forwarded		
Other Competent Authorities affected					

Free State: Department Agriculture and Rural Development **Private Bag X01** **Glen** **Bloemfontein** **9360** **Tel 051 861 8509**	**X**		No input received. Registered letter with BAR forwarded		
Commission on Restitution and Land Rights **Chief Director L Naran** **P O Box 4376** **Bloemfontein** **9300** **051 403 0701** **LNaran@ruraldevelopment.gov.za**	**X**		No restitution claim.		
SAHRA/SAHRIS **Through SAHRIS portal**	**X**		Application lodged on SAHRIS	Interim comment. BAR to be uploaded for informed decision.	
OTHER AFFECTED PARTIES		**X**	Mr. Lefa Mokali	lefamokhali103@gmail.com Cell: :0837555875/ 0718191762 Registered as Interested and Affected party	
INTERESTED PARTIES		**X**	Mr. Lefa Mokali		
PUBLIC MEETING FIRST SESSION		Community Member	At what stage is this application. Has it been approved?	It is now in the stage of compiling a Basic Assessment Report and EMPr with consultation with all interested and Affected parties. The application has not been approved yet, after completion of the whole process the Department Mineral Resources and Energy, Free State Region will make a final decision as the competent authority. Consultation with other authorities is currently undertake.	
		Community Member	Who will be employed on the mine? Is it people from Johannesburg?	The applicant undertook to employ people from the local community being Tweespruit and Thaba Pachoa. In the event where specialized skills would be required the applicant will first seek the broader local and district municipal area, then the province after which if the skills are not located might extend beyond the border of the province. It is not foreseen that it will go beyond the borders of the district municipality.	
		Community Member	Is there diamonds?	The area has previously been mined as the Karmel project and for diamonds. The geologhical stratum confirm the presence of	

			diamonds.	
PUBLIC MEETING SECOND SESSION	Community Member	Explain the process for this application. How was the community and Public informed. Where can I find the Social and Labour Plan for this application.	Mr. Goliath explained the process as being considered as a Part A (application for environmental authorization) and Part B the Basic Assessment Report stage which is the current stage. The Draft BAR was placed at the local municipal office in Tweespruit and Thaba Pachoa. Notice boards was placed at the municipal offices both Tweespruit and Thaba Pachoa, the Tweespruit library and around the farm fences and entry gates. This application does not carry a stand-alone SLP as in the case of a Mining Right but contains a section of community involvement which relates to monitoring how impacts to the environment is eliminated or mininmised within acceptable standards, the commitment to have the local community employed on the mine and then support of local BEE entrepreneurs for consumables.	
	Community Member	How will dust and noise be controlled?	This type of operation has the following sources where dust and noise are created. 1. Crushing and screening in the plant: Remedy-design of the plant particularly transfer points. Sprayers at the transfer points to combat dust pollution. 2. Roadway with the TMM's. Remedy-Speed control, wetting down, servicing of machines and fitting silencers. Speed limit: 3. Limit the working hours to daytime.	
	Community Member	By signing these documents does it mean that DMRE will see this a s approval from us on the project?	The document referred to for signature is the attendance register. It is to record that you were present at this public meeting. It in no way reflect that you gave approval. It is within you right to lodge any complaint or lodge appeal to the DMRE on this application. The final recourse that the interested and affected parties have when environmental authorization would be granted, would be to lodge an appeal to the Appeals directorate Department of Environment. An advert will be placed again to notify all parties	

			and used would be made of a local newspaper. .	
	Community Member	I want to comment that we need to protect the environment for our future generations. It is all the items mention like vegetation, water, noise, dust, heritage and culture. work (socio-economic and promotions of women and disabled, BEE)	I fully agree and cannot more stress the importance.	

iv) The Environmental attributes associated with the alternatives.(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

(1) Baseline Environment

(a) Type of environment affected by the proposed activity.

(its current geographical, physical, biological, socio- economic, and cultural character).

1. Geology

In general, the sedimentary rocks in the area form part of the Karoo-supergroup and more specifically of the Beaufort Group. The sedimentary rocks of the Beaufort Group have intern been divided into the Tarkastad and Adelaide subgroups. Sedimentary rocks in the Tweespruit area forms part of the Adelaide subgroup and consists of very fine n to fissure that coarse grained, buff white and white sandstone. In addition, blue-grey mudstone and shale occur with sporadic occurrences of conglomerate. Younger igneous dolerite has intruded the sedimentary rocks of the Adelaide subgroup and manifests itself in the form of relative thick stratiform sills as well as cross-cutting dykes.

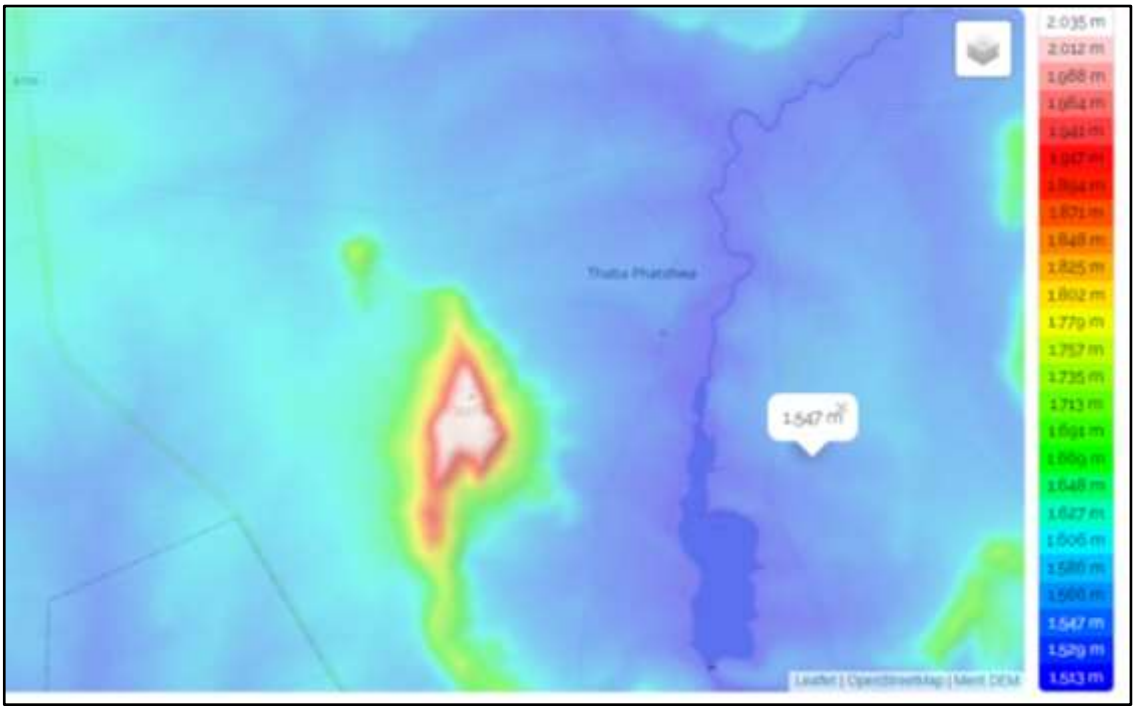
Three Kimberlitic fissure outcrops are known to be exposed on the property, as well as a small blow. The pipe is approximately 50m in diameter and was worked prior to the mine being lost to poor technique and ingress of groundwater. Associated with the pipe is a kimberlitic fissure that outcrop appears up to three meters wide, dipping sub vertically, and striking to the Seethe second fissure known to outcrop on the properties is exposed approximately 7km to the ESE of the pipe, where it is exposed on the projected strike to the fissure associated with the pipe. The fissure is exposed for approximately 50m along its strike length and varies between 3,5m and 1m wide, as it naturally pinches and swells. This fissure has not been previously mined or sampled but is regarded as an eastward continuation of the pipe fissure complex. The third fissure outcrop is exposed along a ridge approximately 1,5km to WSW of the pipe and fissure complex. This fissure was apparently prospected by a privateer, and superficially trenched, exposing a kimberlitic fissure between 0,8m and 1m wide. This fissure similarly strikes to the ESE and dips just south of Maseru in Lesotho, andit may be reasonable assumed to be a westward extension of these known kimberlitic fissures.

Geography

Topography

The topography varies from a very low topographical land type with a gentle gradient towards the west, to a high topographical land type with intermittent kopje's and hills. The project will be visible from the gravel roads that intersect near the pipe. The roads are rarelyused because of alternative tarred roads exist between major towns.

Elevation of Mynplaas 1120



1547m above mean sea level

BIODIVERSITY

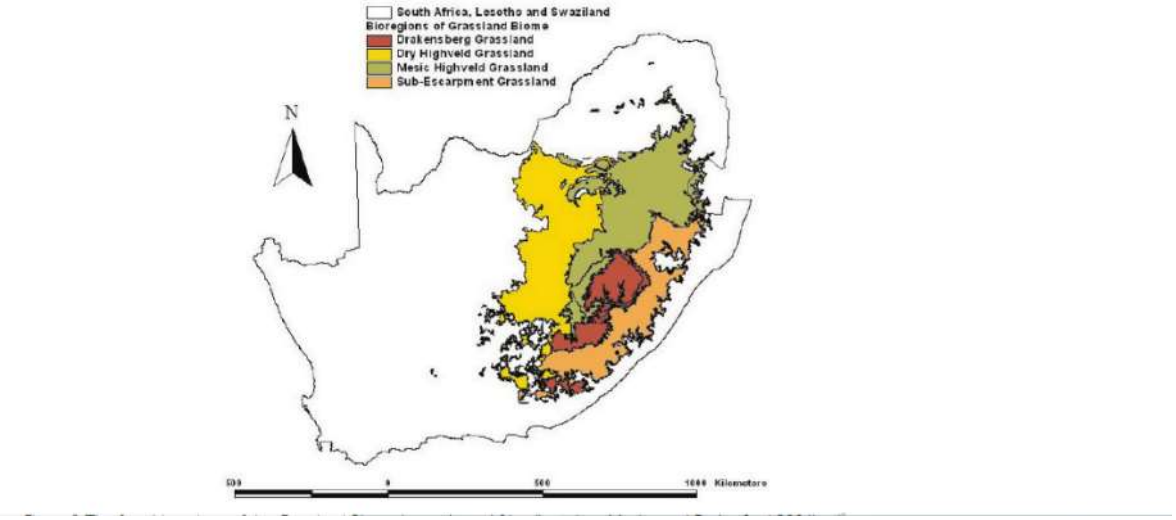
NAME

Eastern Free State Clay Grassland

BIOREGION

Mesic Highveld Grassland Bioregion

Figure 1.The extent of the Grassland Biome (as defined by Mucina and Rutherford 2006) relative to the formal PA estate of southern Africa.



Source: Grassland Biome 8

Gm 3 Eastern Free State Clay Grassland VT 48 Cymbopogon-Themeda Veld (sandy) (83%) (Acocks 1953). LR 39 Moist Cool Highveld Grassland (73%) (Low & Rebelo 1996).

Distribution Free State Province and marginally in Lesotho: Low-lying areas of the eastern regions of the province, covering the vicinities of Wepener (south), Petrus Steyn (north), Excelsior and east of Winburg (west) and Warden (east) and a thin extension between Maseru and Fouriesburg. Altitude 1 380–1 740 m.

Vegetation & Landscape Features Flat to gently rolling land surfaces covered with grassland dominated by Eragrostis curvula, Themeda triandra, Cymbopogon pospischilii, Eragrostis plana, Setaria sphacelata, Elionurus muticus and Aristida congesta. Overgrazing in certain areas and selective grazing of the grassland create a patchy appearance, with dominant and diagnostic species associated with small to large patches of a few hectares in diameter. A wide range of grazing regimes on the macro-scale and within grazing units in the area on the microscale, create this fragmentation (Fuls 1993).

Geology & Soils Mudstones and sandstones of the Adelaide Formation (Beaufort Group) underlie this flat to slightly undulating terrain in the north, while the Tarkastad Formation (Beaufort Group) dominates the geology in the south. Dolerite dykes and sills as well as sandstone outcrops, resistant to weathering, form isolated hills and ridges (Gm 5 Basotho Montane Shrubland) that create a broken landscape, especially in the southern parts of the unit. Sepane, Arcadia, Estcourt and Rensburg forms dominate the moist bottomlands while the Glenrosa, Bonheim, Avalon, Clovelly and Mayo forms dominate the outcrops and slightly elevated areas. Major land types Ca and Bd.

Climate Summer-rainfall region, with MAP around 630 mm. Much of the precipitation falls in form of thunderstorms between November and March. One of the coldest regions of the Highveld. Frost is very frequent in winter. See also climate diagram for Gm 3 Eastern Free State Clay Grassland.

Important Taxa Graminoids: Andropogon appendiculatus (d), Aristida congesta (d), Brachiaria serrata (d), Cymbopogon pospischilii (d), Cynodon dactylon (d), Elionurus muticus (d), Eragrostis chloromelas (d), E. plana (d), Harpochloa falx (d), Heteropogon contortus (d), Microchloa caffra (d), Miscanthus capensis (d), Panicum gilvum (d), Pennisetum sphacelatum (d), Setaria sphacelata (d), Themeda triandra (d), Tristachya leucothrix (d), Aristida junciformis subsp. galpinii, Eragrostis capensis, E. gummiflua, E. racemosa, Panicum stapfianum, Setaria nigrirostris, Trichoneura grandiglumis. Herbs: Vernonia oligocephala (d), Ajuga ophrydis, Berkheya onopordifolia var. onopordifolia, Chamaesyce inaequilatera, Cineraria lyratiformis, Crabbea acaulis, Geigeria aspera var. aspera, Haplocarpha scaposa, Helichrysum rugulosum, Hermannia depressa, Hibiscus microcarpus, Monsonia burkeana, Nolletia ciliaris, Selago densiflora, Sonchus dregeanus, S. nanus, Tolpis capensis. Geophytic Herbs: Boophone disticha, Crinum bulbispermum, Kniphofia ritualis, Ledebouria macowanii. Herbaceous Climber: Rhynchosia totta. Low Shrubs: Helichrysum dregeanum (d), Anthospermum rigidum subsp. pumilum, Felicia muricata, Pentzia globosa, Stoebe plumosa.

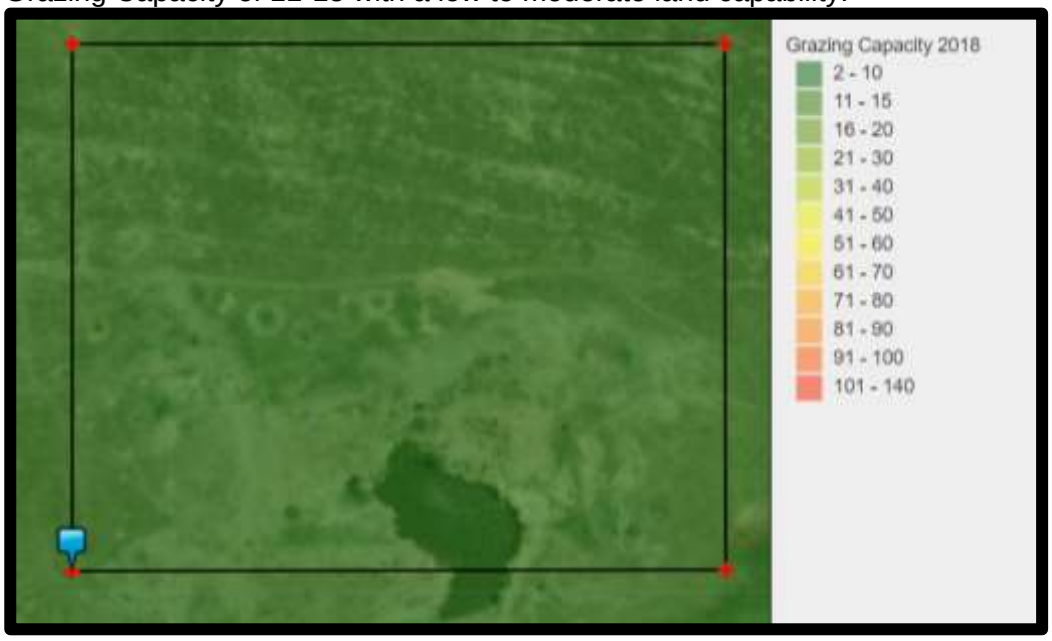
Succulent Shrub: Euphorbia clavarioides var. clavarioides.

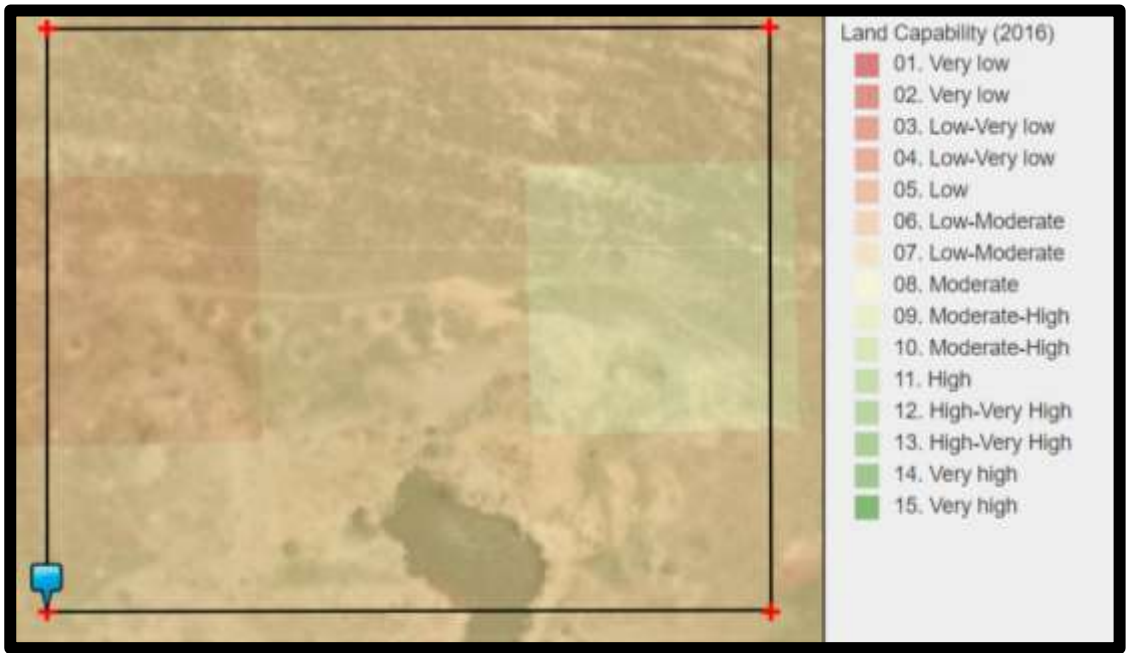
Conservation Endangered. Target 24%. Only a small portion statutorily conserved (Willem Pretorius Nature Reserve). More than half already transformed by cultivation or building of dams (Allemanskraal, Armenia, Egmont, Loch Lomond, Lovedale, Mushroom Valley and Newberry Dams). Erosion very low (34%), low (30%) and moderate (26%).

Remarks Several clusters of AZf 3 Eastern Temperate Freshwater Wetlands (playas) occur in an area between Lindley, Bethlehem, Warden and Petrus Steyn. These playas are probably the remains of palaeodrainage lines (Seaman 1987). References Scheepers (1975), Seaman (1987), Du Preez (1991), Fuls (1993)

Grazing Capacity

Grazing Capacity of 11-15 with a low to moderate land capability.

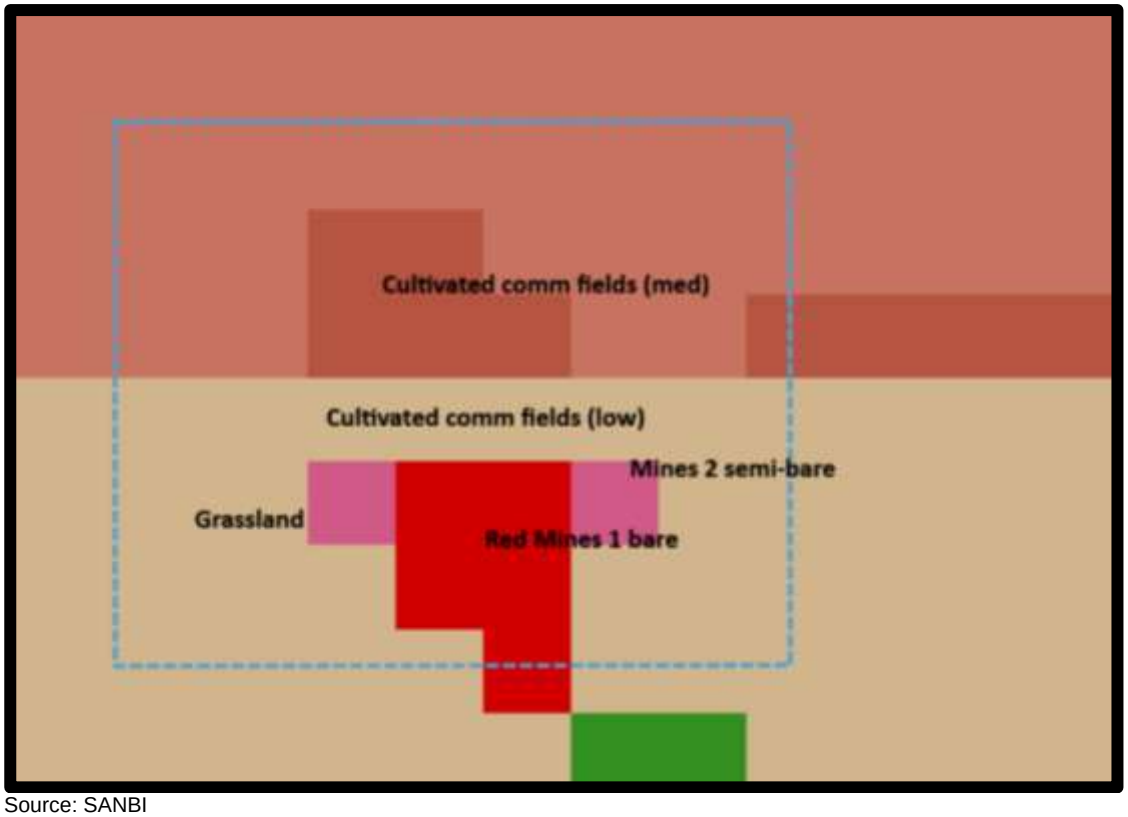




Source: CFM Agriculture GIS

National Landcover 2014 DEA

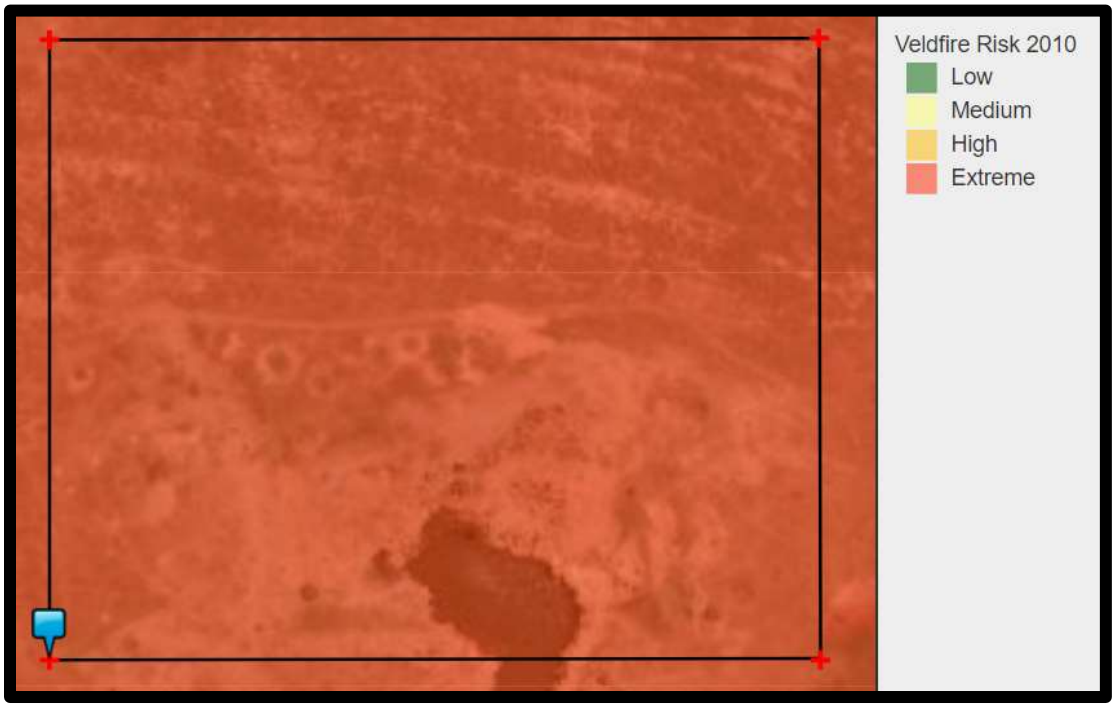
Land cover refers to the surface cover on the ground, whether vegetation, urban infrastructure, water, bare soil or other. It provides a means to examine landscape patterns and characteristics, which are important in understanding: The extent, availability, and condition of lands. Ecological system extent, structure, and condition



Source: SANBI

Veldfire Risk

The study area has a an extremely high veldfire risk



Water

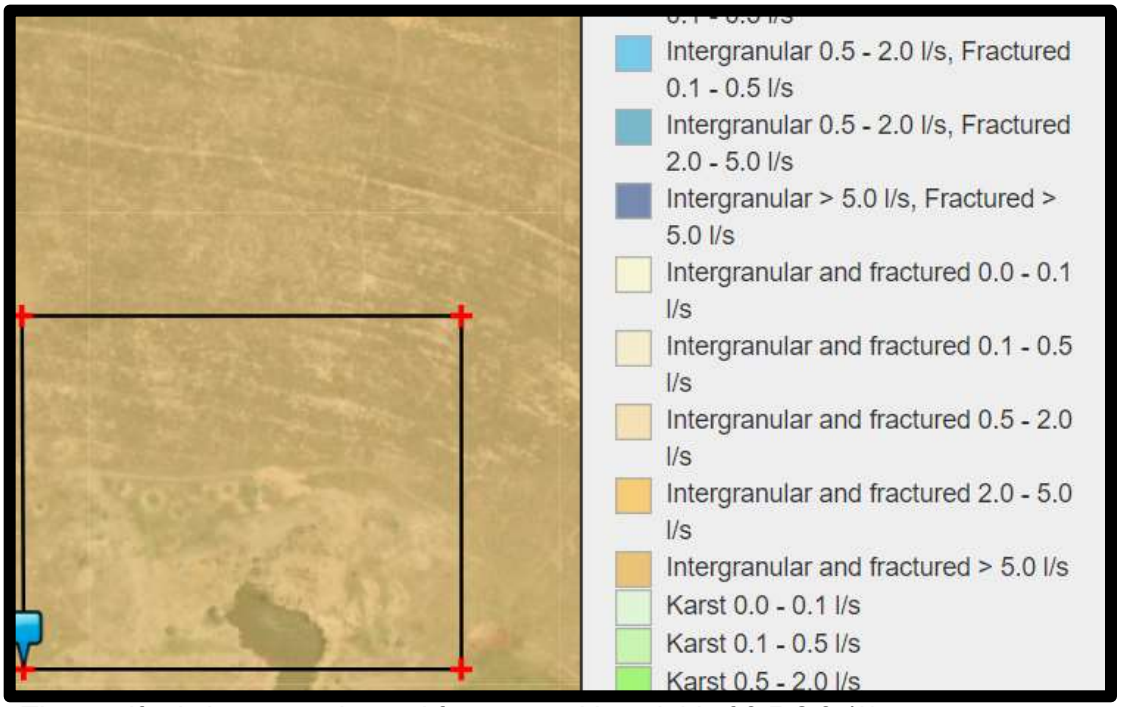
NFEPA Water Management Area: Upper Orange

Secondary Catchment: D2

Quaternary Catchment: D23

Groundwater

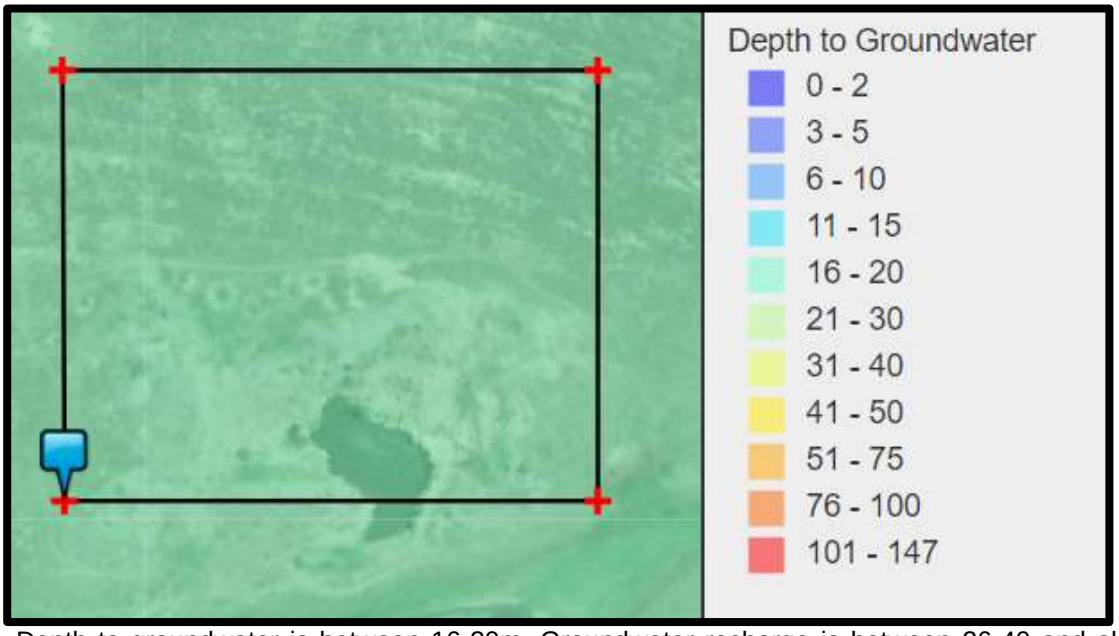
Aquifer



The aquifer is intergranular and fractures with a yield of 0.5-2.0.1l/s.

The classification can be described as minor and a susceptibility classified as medium with moderate vulnerability. Aquifer vulnerability is defined as the likelihood for contamination to reach a specified position in the groundwater system after being introduced at some point above the uppermost aquifer. The vulnerability is determined by evaluating seven parameters, namely:

- Depth to groundwater;
- Recharge;
- Aquifer media;
- Soil media;
- Topography;
- Impact on vadose zone; and
- Hydraulic conductivity.



Depth to groundwater is between 16-20m. Groundwater recharge is between 26-40 and electric conductivity (mS/m) of 70 .

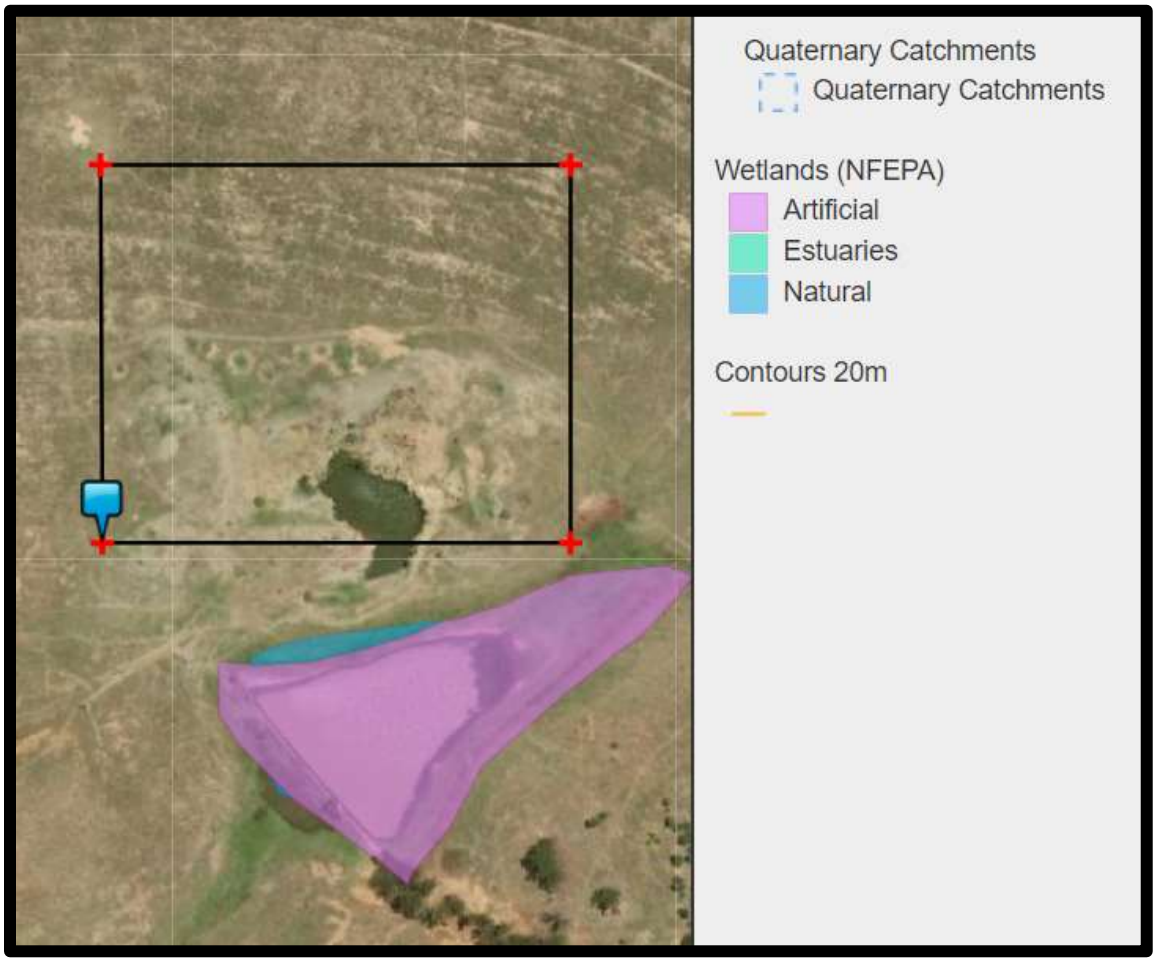
Source: CFM Agriculture GIS

River diversions:

No alteration of any water courses or the natural drainage lines will take place on the site. No infrastructure development will be allowed within the 1:50 year floodline or within 20m of the drainage line (whichever is the greater).

Wetlands:

No wetlands occur on the application area, but an artificial and natural wetland occur to the south.



Source: CFM Agriculture GIS

This section taken from: Phase 1 Heritage Impact Assessment of an existing open pit mine on farm Mynplaas 931, Thaba Phatswa, FS Province-Prepared by Paleo Field Services, Bloemfontein.

Palaeontology: The study area is located within the outcrop area of the late Permian Tarkastad Subgroup sedimentary strata of the Karoo Supergroup (Theron 1963; Johnson et al. 2006) (Fig. 5). Intrusive dykes and sills of resistant Jurassic dolerites are common in the region, but are not palaeontologically significant. Tarkastad Subgroup sedimentary strata in the region include Lystrosaurus and Cynognathus Assemblage Zone vertebrate fossils, respectively characterized by an abundance of Lystrosaurus and presence of Cynognathus, Diademodon and Kannemeyeria in the absence of Lystrosaurus (Groenewald & Kitching 1995, Kitching 1995) (Fig 6). Known palaeontological sites located on the 2927AC quarter degree grid include Cynognathus AZ vertebrate fossils found on the northwestern slopes of Thaba Phatswa, about 6 km west-northwest of the study area.

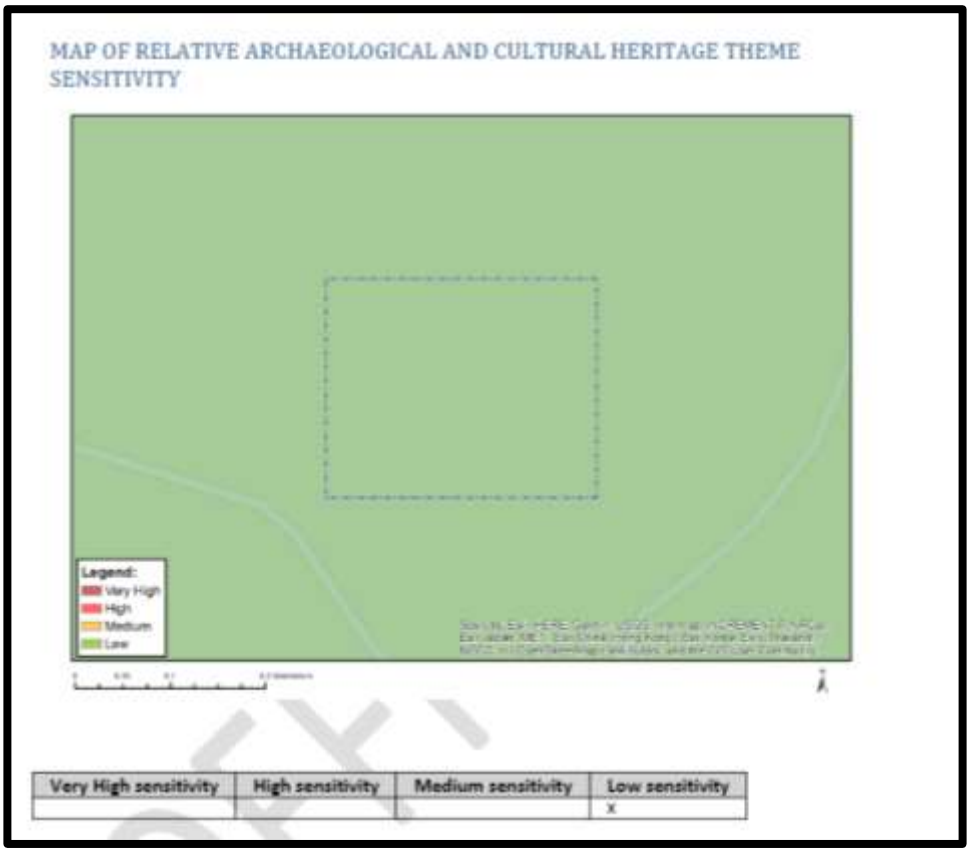
Archaeology. The archaeological footprint in the area are primarily represented by Stone Age archaeological localities, rock art sites and an extensive footprint related to the distribution of Iron Age settlements and early history of Sotho-speaking communities along the Caledon River Valley. Previously recorded Stone Age sites in the region are found at Bokpoort, Orange Springs Fort Savange, Leliehoek and Rose Cottage Cave. Rock shelters associated with more recent hunter – gatherer activities are found at Rooikrans, Mauermanshoek, Westbury and Tienfontein. Historical accounts of the middle Caledon Valley indicate that hunter-gatherers survived as communities until the end of the Basuto Wars and the establishment of European farms in 1869. Stow (1905) recorded traditions

about the last "Bushmen" inhabitants of the Korannaberg/Viervoetberg (Mequatling) situated between Excelsior and Labybrand, and the Platberg situated about 4 km south of Ladybrand. Numerous rock art sites have been recorded in the region with over 30 farms, listed in the Ladybrand district (Van Riet Low 1941). A number of Iron Age settlements, which resemble Maggs's Type V settlement pattern in many aspects of their material culture, are found in the Caledon Valley and surrounds, including those at Mequatling and Tihela. According to historical accounts, the southward migration of early Sotho- speaking communities led to at least one group reaching the Caledon Valley about the mid-seventeenth century and occupying most of the upper and middle parts of the valley by 1800 AD. A major event to take place among the indigenous tribes of the interior highveld of South Africa before the coming of European settlers was the Difaqane raids and wars, which led to the segmentation of the Southern Sotho into numerous antagonistic communities scattered along the Caledon River Valley. One group was the Leghoya who in 1810 or 1812, were finally conquered and completely absorbed by the Taung under their chief, Moletsane, with whom they settled at Mequatling, to the west of Ladybrand, in 1837. 5 Although the Leghoya were subjects of Moletsane they lived as separate pockets among the Taung and actually retained their own chief. In 1869, by the Treaty of Aliwal North, Moletsane's territory, which had previously been part of Basutoland, was ceded to the Orange Free State, and Moletsane with his Taung and Leghoya followers moved into south Basutoland, between Mafeteng and Mohale's Hoek, where he was granted land by Moshesh. The Thaba Phatswa settlement is located about 3 km northwest of the site takes its name from the mountain Thaba Phatswa, which is of Setswana or Sesotho origin and means 'long black mountain' (Ellenberger 1992). In 1940, ten Afrikaans 'coloured' families had been relocated to the Thaba Phatswa settlement from a nearby farm (Brakfontein no. 140) and from the Transkei (Murray 1992). The greater majority of these so-called coloureds are descendants of Carolus Baatje's followers, the so-called Newlanders who have lived in the Caledon River valley since the 1830's (Erasmus 2019). The settlement was developed in 1940 on the farms Thaba Patchoa, Thaba Potchoaberg, Mammashoek, and Dassiehoek. The original owner of Thaba Phatswa was Mr Stephanus Koko, a son from the Barolong chief Moroka's fourth house (Murray 1992). These farms initially stayed in the possession of the Barolong as South African Native Trust (SANT) land, whereafter it was purchased by the former Department of Land Affairs and transferred it to the Department of Coloured Affairs (Murray 1992). A successful land claim has seen the transfer of these three farms in 2004 to the Boitumelo Communal Property Association, an association consisting of 44 families who have lived on and exploited the land as tenants.

Field Assessment and Recommendations. The footprint is located on a Kimberlite dyke considered to be of low palaeontological significance (Fig. 7). These cf. Cretaceous intrusions "cooked" the adjacent sedimentary rocks with the effect of hardening and warping the surrounding sedimentary rocks and destroying any potential fossil plant material or neighboring vertebrate fossils (Fig. 7). Intact Quaternary sediments (topsoil overburden) around the site is considered not conducive for the preservation of Quaternary vertebrate fossils (e.g. lack of suitably developed overburden, absence of pan sediments, springs and extensive alluvial / overbank deposits). The site has been severely degraded by previous mining activities. There is no above-ground evidence of historically significant building structures older than 60 years, Stone Age archaeological remains, Iron Age structures or material of cultural significance within the confines of the development footprint. As for potential palaeontological impact, the development may proceed, provided that all excavation activities are restricted to within the boundaries of the footprint. As for potential archaeological impact, the archaeological and cultural component of the proposed project footprint is assigned a site rating of General Protection C (GP.C) (Table 1). The development may proceed, provided that all excavation activities are restricted to within the boundaries of the footprint.

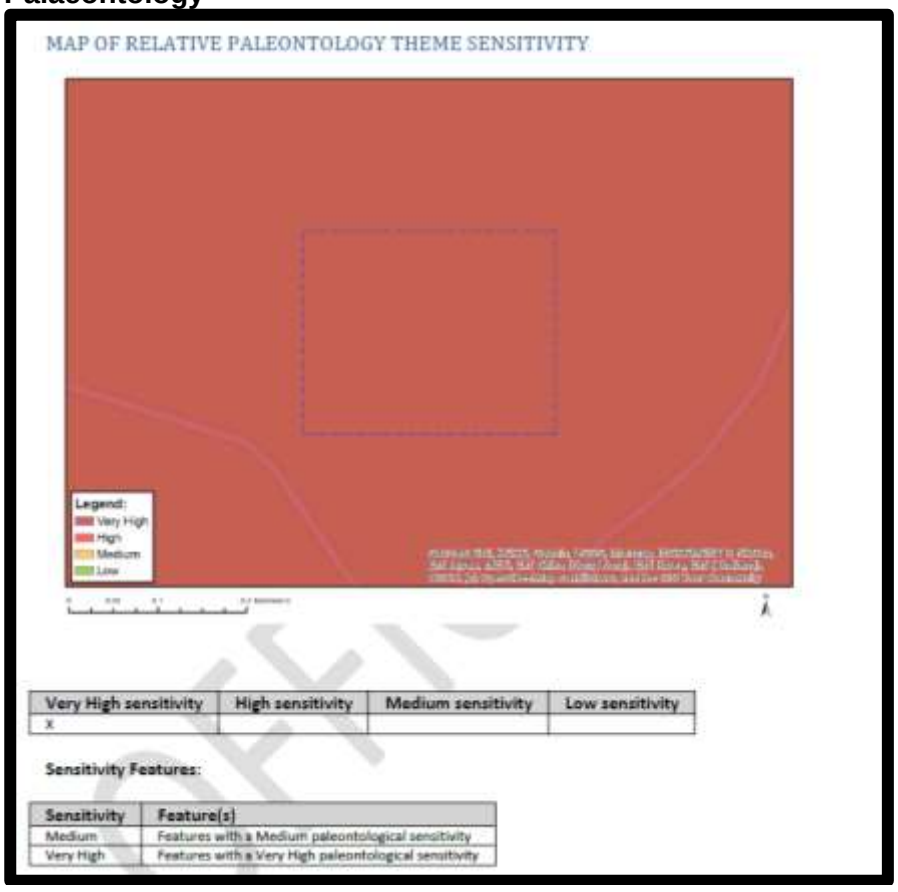
APPENDIX F

Source: Environment Screening Tool



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Palaeontology

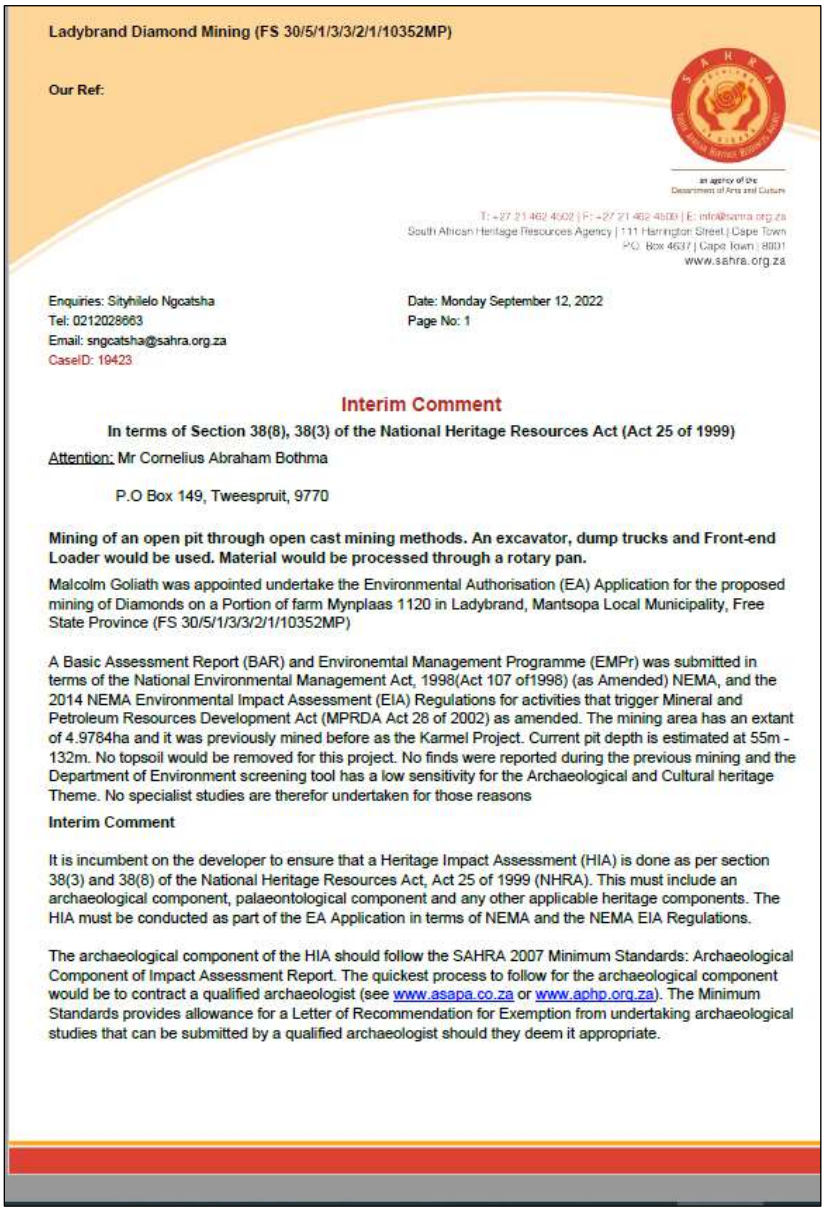


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

SAHRA
Interim Comment



Ladybrand Diamond Mining (FS 30/5/1/3/3/2/1/10352MP)

Our Ref:

an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001
www.sahra.org.za

Enquiries: Sityhilelo Ngcatsha
Tel: 0212028663
Email: sngcatsha@sahra.org.za
CaseID: 19423

Date: Monday September 12, 2022
Page No: 1

Interim Comment

In terms of Section 38(8), 38(3) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Mr Cornelius Abraham Bothma

P.O Box 149, Tweespruit, 9770

Mining of an open pit through open cast mining methods. An excavator, dump trucks and Front-end Loader would be used. Material would be processed through a rotary pan.

Malcolm Goliath was appointed undertake the Environmental Authorisation (EA) Application for the proposed mining of Diamonds on a Portion of farm Mynplaas 1120 in Ladybrand, Mantsopa Local Municipality, Free State Province (FS 30/5/1/3/3/2/1/10352MP)

A Basic Assessment Report (BAR) and Environemtal Management Programme (EMPr) was submitted in terms of the National Environmental Management Act, 1998(Act 107 of1998) (as Amended) NEMA, and the 2014 NEMA Environmental Impact Assessment (EIA) Regulations for activities that trigger Mineral and Petroleum Resources Development Act (MPRDA Act 28 of 2002) as amended. The mining area has an extant of 4.9784ha and it was previously mined before as the Karmel Project. Current pit depth is estimated at 55m - 132m. No topsoil would be removed for this project. No finds were reported during the previous mining and the Department of Environment screening tool has a low sensitivity for the Archaeological and Cultural heritage Theme. No specialist studies are therefor undertaken for those reasons

Interim Comment

It is incumbent on the developer to ensure that a Heritage Impact Assessment (HIA) is done as per section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). This must include an archaeological component, palaeontological component and any other applicable heritage components. The HIA must be conducted as part of the EA Application in terms of NEMA and the NEMA EIA Regulations.

The archaeological component of the HIA should follow the SAHRA 2007 Minimum Standards: Archaeological Component of Impact Assessment Report. The quickest process to follow for the archaeological component would be to contract a qualified archaeologist (see www.asapa.co.za or www.aphp.org.za). The Minimum Standards provides allowance for a Letter of Recommendation for Exemption from undertaking archaeological studies that can be submitted by a qualified archaeologist should they deem it appropriate.

Ladybrand Diamond Mining (FS 30/5/1/3/3/2/1/10352MP)

Our Ref:

an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za
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Tel: 0212028663
Email: sngcatsha@sahra.org.za
CaseID: 19423

Date: Monday September 12, 2022

Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

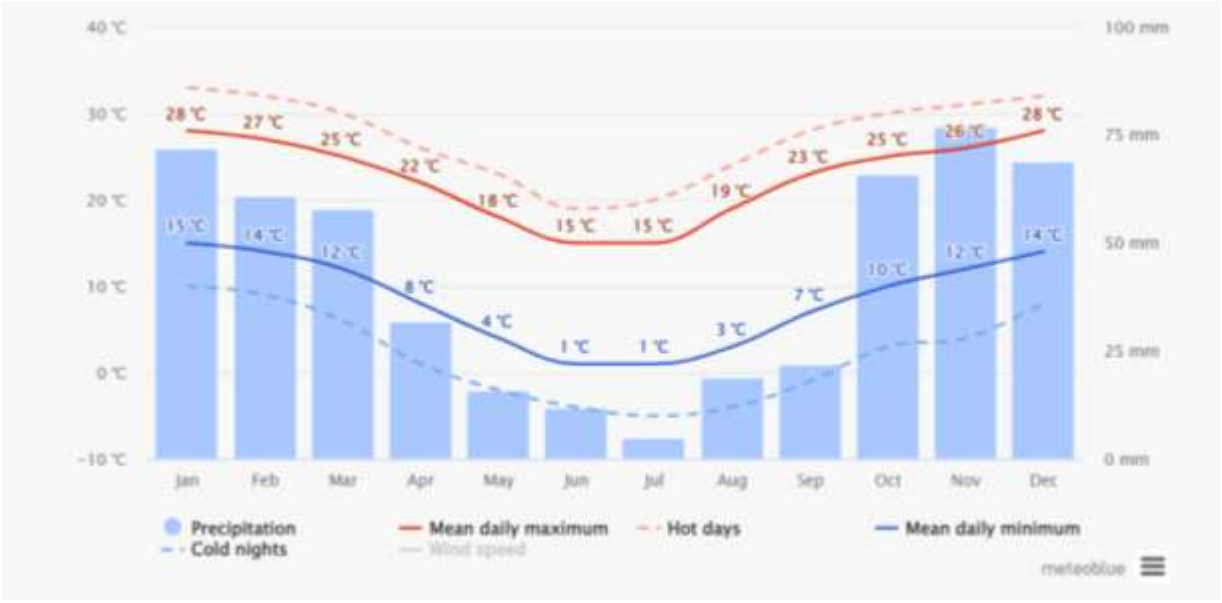
ADMIN:
Direct URL to case: https://sahris.sahra.org.za/node/604341
(DMR, Ref: FS 30/5/1/3/3/2/1/10352MP)

2. Climate

The Mynplaas 1120 Project is situated 20km SE from Tweespruit in the Free State Province. The climate can generally be described as continental. The weather provides hot wet summers (December-February) and mild dry winters (June-August). The infrequent summer rains tend to take the form of occasional severe thunderstorms rather than prolonged soft showers. It is not unusual for winter nighttime temperatures to drop below freezing night. Rainfall average 651mm per annum. The climate is considered mild and generally warm. It is considered to be Cfb according to the Koppen-Geiger classification.

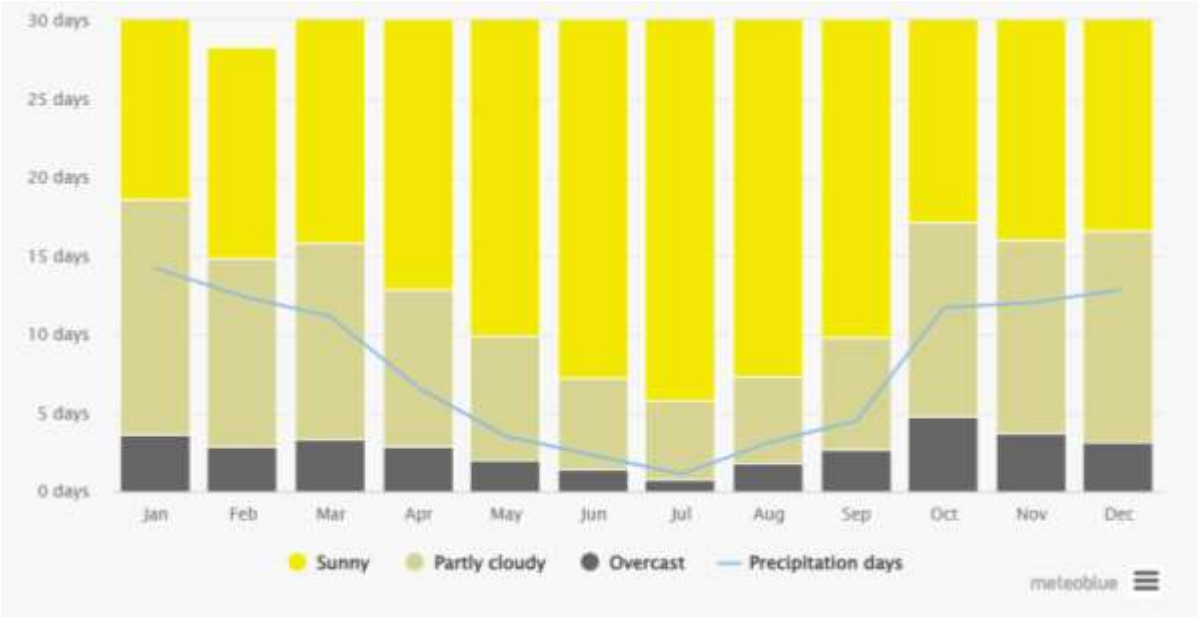
This section on climate taken from Meteoblue

Average temperatures and precipitation

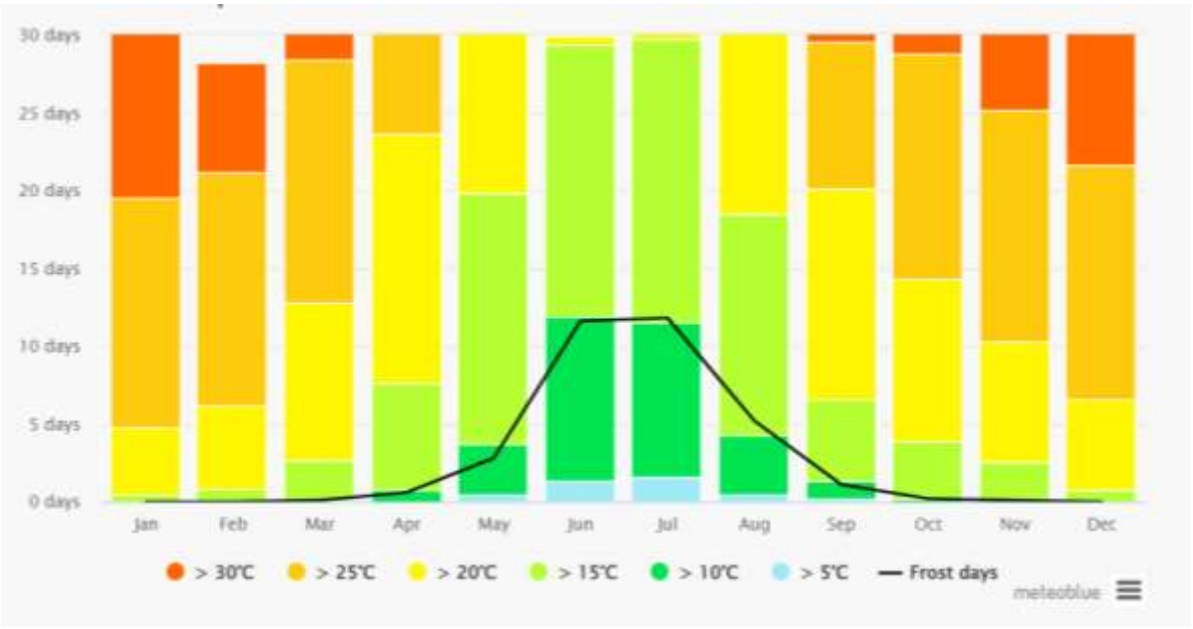


The "mean daily maximum" (solid red line) shows the maximum temperature of an average day for every month for Tweespruit. Likewise, "mean daily minimum" (solid blue line) shows the average minimum temperature. Hot days and cold nights (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years. For vacation planning, you can expect the mean temperatures, and be prepared for hotter and colder days. Wind speeds are not displayed per default but can be enabled at the bottom of the graph.

Cloudy, sunny, and precipitation days



Maximum temperatures

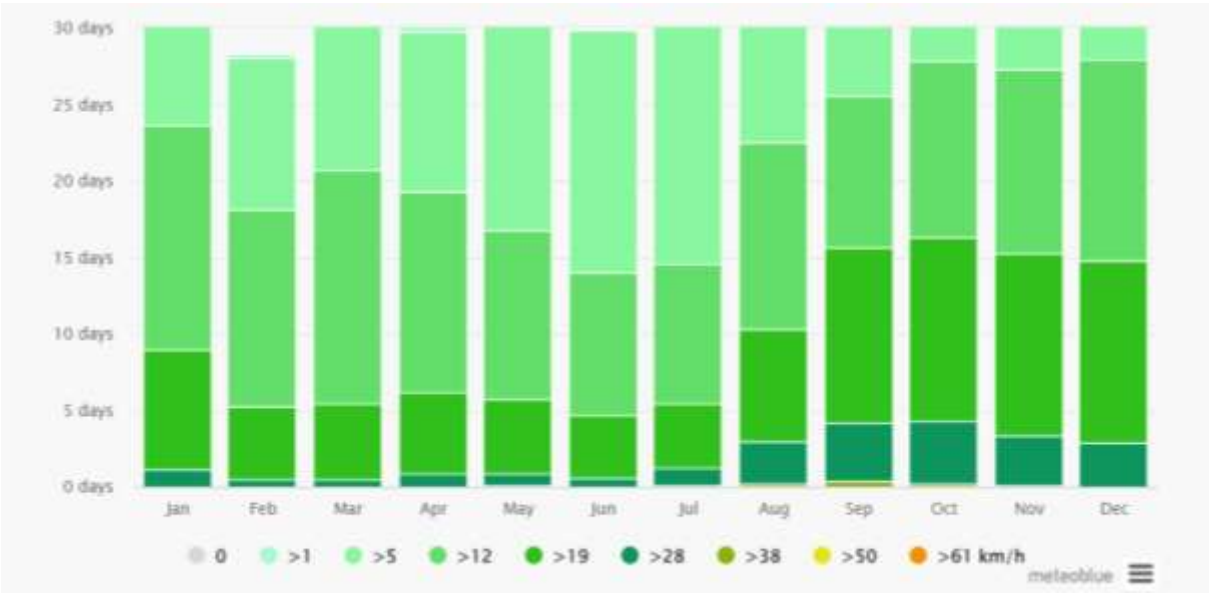


The maximum temperature diagram for Tweespruit displays how many days per month reach certain temperatures.

Precipitation amounts

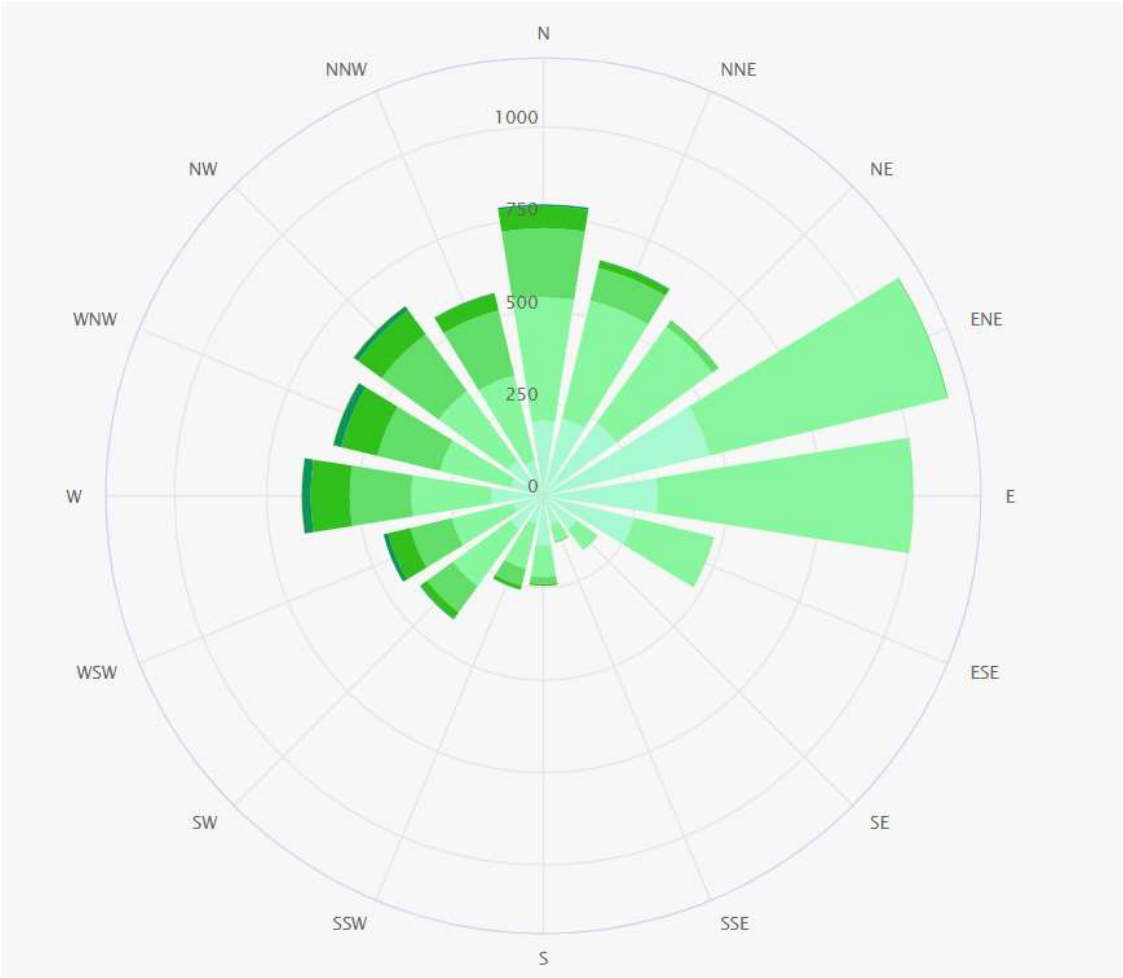
The precipitation diagram for Tweespruit shows on how many days per month, certain precipitation amounts are reached.

Wind Speed



The diagram for Tweespruit shows the days per month, during which the wind reaches a certain speed.

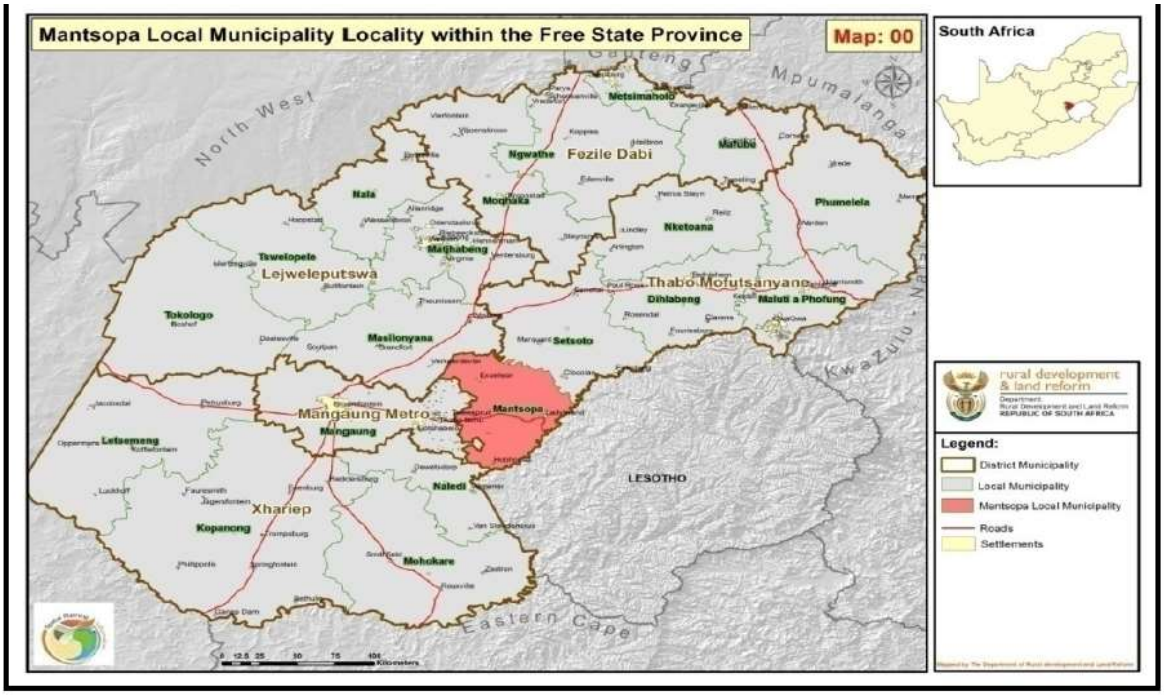
Wind rose



The wind rose for Tweespruit shows how many hours per year the wind blows from the indicated direction. Example SW: Wind is blowing from South-West (SW) to North-East (NE).

Taken from IDP Mantsopa Municipality 2019-2020

Mantsopa Local Municipality on Free State Province map



Mantsopa Local Municipality was established on 5 December 2000 and incorporates the areas such as Ladybrand, Hobhouse, Tweespruit, Excelsior, and Thaba Patchoa. It forms part of the Eastern Free State and falls within the Thabo Mofutsanyana District Municipal area. The municipality borders the Kingdom of Lesotho in the east, Mangaung Local Municipality to the west, and Masilonyana and Setsoto to the north. The languages spoken in Mantsopa are Sesotho, English and Afrikaans as dominant languages in the Province.
The economy of Mantsopa is largely on the commercial farming sector, which employs a large number of the local community. On the other hand, the private businesses and public sector also employ a quota of the community in various towns. Tourism also plays an attraction point within the Maluti Mountains and the official pronouncement of Lekhalong La Mantsopa as a national heritage side. Mantsopa area is accessible via the N8 and R26 roads which transverse the area. A railway line that runs along these routes' services the area; therefore, it also makes it a gateway to the Mountain Kingdom of Lesotho, which attracts lot of tourists nationally and internationally

Ladybrand is considered the most progressive of all towns and is the most eastern node in the municipal area. Ladybrand municipal area includes Manyatseng, Mauersnek and the surrounding municipal commonages that covered an area of 4 682 ha in size. The town accommodates 34% of the total population of Mantsopa.

Hobhouse is a smaller rural town that is located southwest of Ladybrand and east of the Leeuw River along the Lesotho border. Hobhouse is the most southern node in the municipal area. It is about 2 089 ha in extent which includes Dipelaneng and municipal commonages. The town accommodates 4.6% of the total population of Mantsopa.

Tweespruit is the most centrally located node along the N8 route between Bloemfontein and Ladybrand. It is about 1 534 ha in extent and included Borwa, Dawiesville and municipal commonages. The town accommodates 10.2% of the total population of Mantsopa.

Excelsior is located 40 km north of Tweespruit along the R709 and forms the northern boundary of Mantsopa. It is about 1 298 ha in extent of which 243 ha was designed as an urban area, the

rest were rented out to commercial farmers while some land was utilized for grazing purposes. It includes Mahlatswetsa and municipal commonages. Excelsior accommodates 10.6% of the total population of Mantsopa.

Thaba Patchoa is located between Tweespruit and Hobhouse and is a small agricultural residence for 1100 families. It is about 3 864 ha in extent and consisted of the farms Thaba Patchoa 105, Segogoana's Valley 665 and Sweet Home 667.

The municipal area has been divided into 9 wards. These wards comprise of the following areas:
Ward 1*:* Tweespruit, Borwa, Dawiesville, Thaba Patchoa and surrounding rural areas;
Ward 2: Hobhouse, Dipelaneng, and surrounding rural areas;
Ward 3: Vukazenzele; Masakeng; Mekokong; Part of Los My Cherrie and a small portion in town, Modderpoort, and surrounding rural areas.
Ward 4: Part of Los My Cherrie, Flamingo; Part of Lusaka.
Ward 5: Mandela Park, Riverside, Masakeng, Thusanong.
Ward 6: Lusaka, Thabong, New Platberg, and Homes 2000;
Ward 7: Ladybrand Town, Mauersnek; Platberg
Ward 8: Excelsior, part of Mahlatswetsa, part of Tweespruit and surrounding rural areas;
Ward 9: Mahlatswetsa

Number of households per ward

Number of Households per ward – Census 2011										
Ward 1	*Ward 2*	*Ward 3*	*Ward 4*	*Ward 5*	*Ward 6*	*Ward 7*	*Ward 8*	*Ward 9*	*Total for 2011*	*Total for 2016*
1 886	1 865	1 859	2 088	1 558	1 363	1 578	14 94	1 479	15 170	16 951

Source: Statistics South Africa - Census 2011 and community survey 2016

Note: information for 2016 is from the community survey 2016, which is only up to municipal level not ward level.

THE POPULATION OF MANTSOPA
Mantsopa Local Municipality is the second largest local municipal area within Thabo Mofutsanyana, but only accommodates 7% of the total population of Thabo Mofutsanyana. The municipal area comprises five urban areas that are dispersed throughout the region, with a surrounding commercial farming area that is utilised for mixed farming practices. The languages spoken in Mantsopa are Sesotho, English and Afrikaans, the dominant languages in the province.

Demographic Analysis of Mantsopa Local Municipality

DEMOGRAPHIC INDICATORS	1996	2001	2011	2016
POPULATION SIZE				
Total Population	50 085	55 339	51 056	53 056
POPULATION DISTRIBUTION				
Formal Dwellings (%)	59%	68.40%	81.7%	83.7%
Rural Areas	21 405	12 329	15 057	-
POPULATION COMPOSITION				
% Young (0-14)	34.50%	35.90%	34.80%	-
% Working Age (15-64)	23.20%	26%	25.90%	-
% Elderly (65+)	5.20%	5.60%	5.40%	-
POPULATION GROUPS				
Black African	43 084	48 878	45 725	47 311
Coloured	2 233	2 472	2 006	1 760
White	4 345	3 761	3 366	4 010
Indian/Asian	183	227	296	444
HOUSEHOLDS AND SERVICES				
Average number of rooms			4	-
Average household size	11 577	13 773	15 170	16 951
Access to piped water (%)	37.80%	73.80%	24.40%	95.5%
Access to electricity ((%)	69.70%	74.90%	90.90%	91.0%

DEMOGRAPHIC INDICATORS	1996	2001	2011	2016
Access to Sanitation (%)	36.80%	34.50%	67.50%	87.7%
Tenure Status (%)			29.70%	-
EDUCATIONAL STATUS				
Attending Educational Institution			14 456	-
No schooling			2 541	-
Primary enrolment rate			15 724	-
Secondary enrolment rate			21 625	-
% completed matric			2.60%	-
% completed higher education			4.80%	-
EMPLOYMENT STATUS				
Unemployment rate (%)	30%	35.51%	29.20%	-
Employment rate (%)	70%	64.49%	23.10%	-
INCOME STATUS				
Average household income			R19601-38200	-
Indigent households (below R3000)			1 426	-

Distribution of total population by functional age groups

	Age groups				Total	Dependency ratio
	0 - 14 (Children)	15 - 34 (Youth)	35 - 64 (Adult)	65 + (Elderly)		
Census 2011	16 216	18 146	13 918	2 776	51 056	59.2
CS 2016	16 048	21 301	12 198	3 979	53 525	59.8
Population intercensal growth (2011 - 2016)	-168	3 155	-1 720	1 203	2 469	

Data source: Stats SA, Census 2011 and Community Survey 2016

The Table above indicates that the population of Mantsopa local municipality has increased between 2011 and 2016 with intercensal growth of 2469. In all age groups, the population has increased between the years except for children (0 – 14 years) which declined by intercensal growth of 168. The dependency ratio of Mantsopa local m

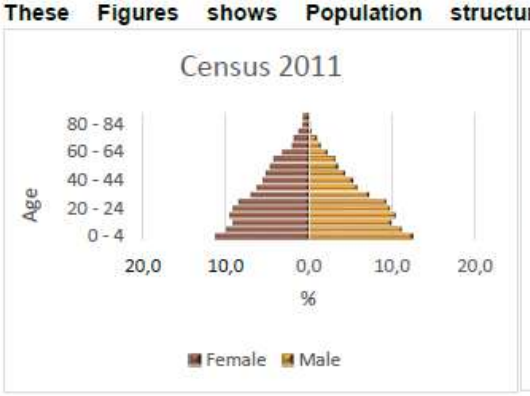
Population distribution by languages most spoken

Languages	Gender		Total
	Male	Female	
Afrikaans	1 898	1 911	3 810
English	832	1 133	1965
IsiNdebele	-	-	-
IsiXhosa	110	41	152
IsiZulu	39	13	52
Sepedi	74	46	120
Sesotho	22 401	23 867	46 269
Setswana	40	32	72
Sign language	-	-	-
SiSwati	-	-	-
Tshivenda	-	-	-
Xitsonga	-	14	14
Khoi; nama and san languages	-	-	-
Other	142	34	175

Data sources: Stats SA, Census 2011 and Community Survey 2016

The Table above indicates the distribution of the population by language and gender. The most spoken language within the municipality is Sesotho followed by Afrikaans and English respectively. None of the population members uses sign language to communicate.
The municipal area accommodates approximately 51 056 people and covers an area of 4 290 km2. It incorporates five small towns, which accommodates collectively 70.9% of the total population of Mantsopa. These small towns serve the surrounding rural community. The five main towns situated in Mantsopa are Ladybrand Head Office, Hob House, Tweespruit, Thaba-Phatchoa and Excelsior.

These Figures shows Population structures – Census 2011 and Community Survey 2016



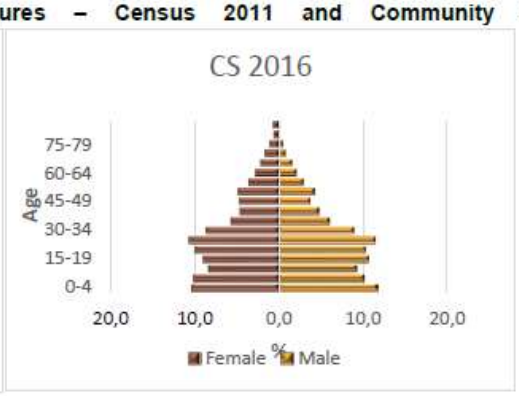
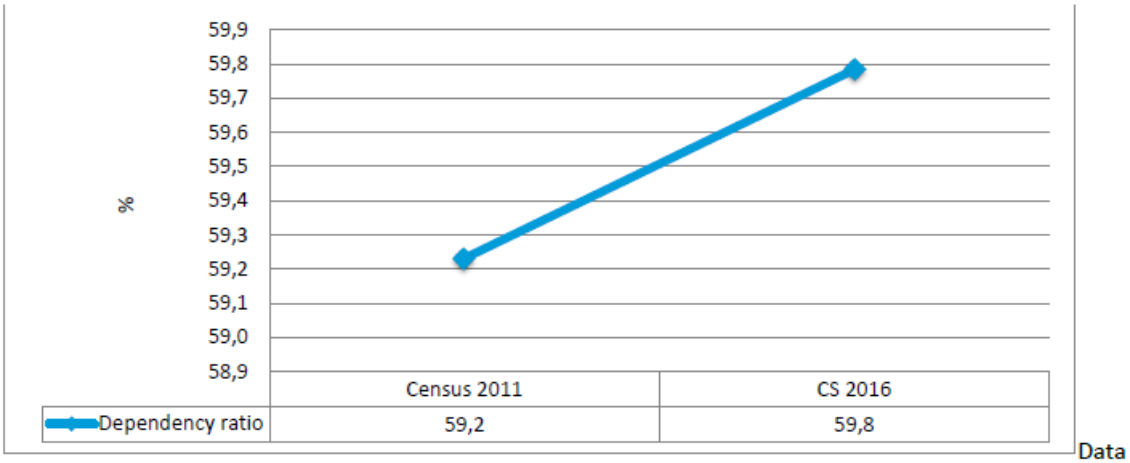


Figure 1 **Figure 2**

Data sources: Stats SA, Census 2011 and Community Survey 2016

The Figure above indicate population structures of Mantsopa local municipality in 2011 and 2016 respectively. This indicates that the municipality consists of young population than the old. Based on the age group 0 - 4 years, the figures suggest that there was consistency in terms of fertility within the municipality in the past five years. The figures suggest that females live longer than the male population within the municipality.

Dependency ratio



source: Stats SA, Census 2011 and Community Survey 2016

According to census 1996, 34.5% of the total population was 19 years and younger and 70.0% of the total population was economic active (between 15 – 65 years). These figures could have changed due to migration and the impact of HIV/AIDS, but it still gives a good overview of the age composition of the population. The table below gives a breakdown of the age profile per geographical area.

Human and social development

Human development index

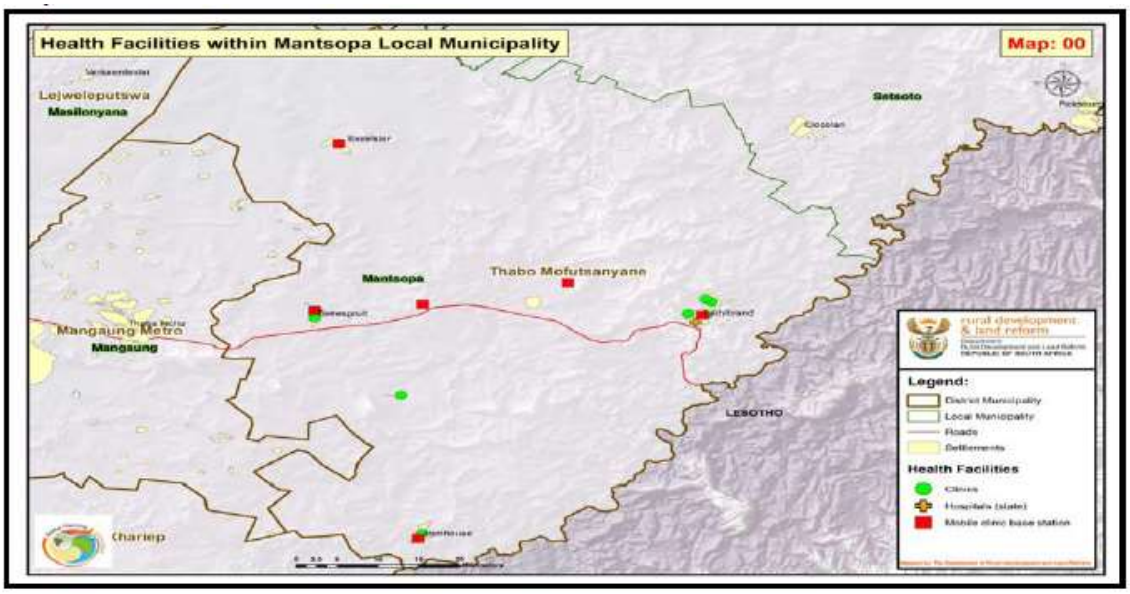
It is extremely difficult to determine the level of human development of the municipal area due to a lack of accurate and recent information. The only information that is readily available is census data that does not reflect the human and social development status of a community.

Health Status

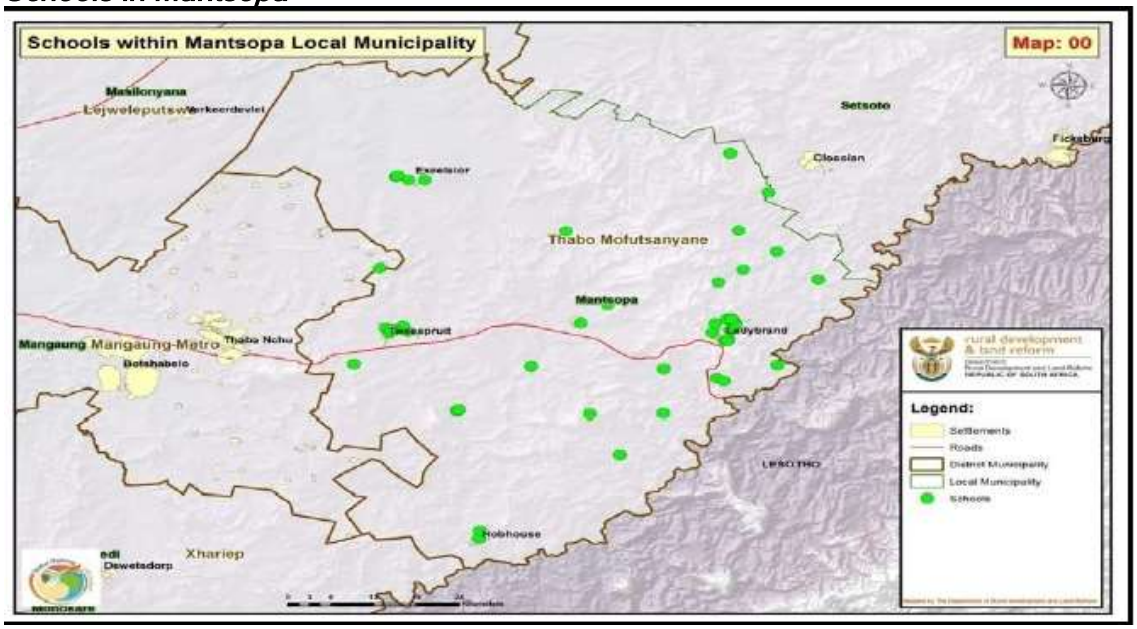
General statistics on the health status of the community is limited. However, a good indication is obtained from the statistics provided by the Department of Health about the current health status of people living in Mantsopa. 1318 new diarrhoea cases were reported during 2014 in Mantsopa. The incidence rate is 104.6 per 1000 of the population (Free State Provincial Government (FSPG): Department of Health, 2014).

The Provincial Department of Health (2014) also revealed that 8 297 new STI cases were reported in 2014 which represents 70.6 incidences. A 145 TB case findings were reported in 2000 with an incidence rate of 8.3%, a Teenage pregnancy have decreased from 321 to 118 since 2000 (FSPG: Department of Health, 2011).

Health Facilities.



Schools in Mantsopa



Distribution of employed population in Mantsopa local municipality by age groups and type of sector per ward

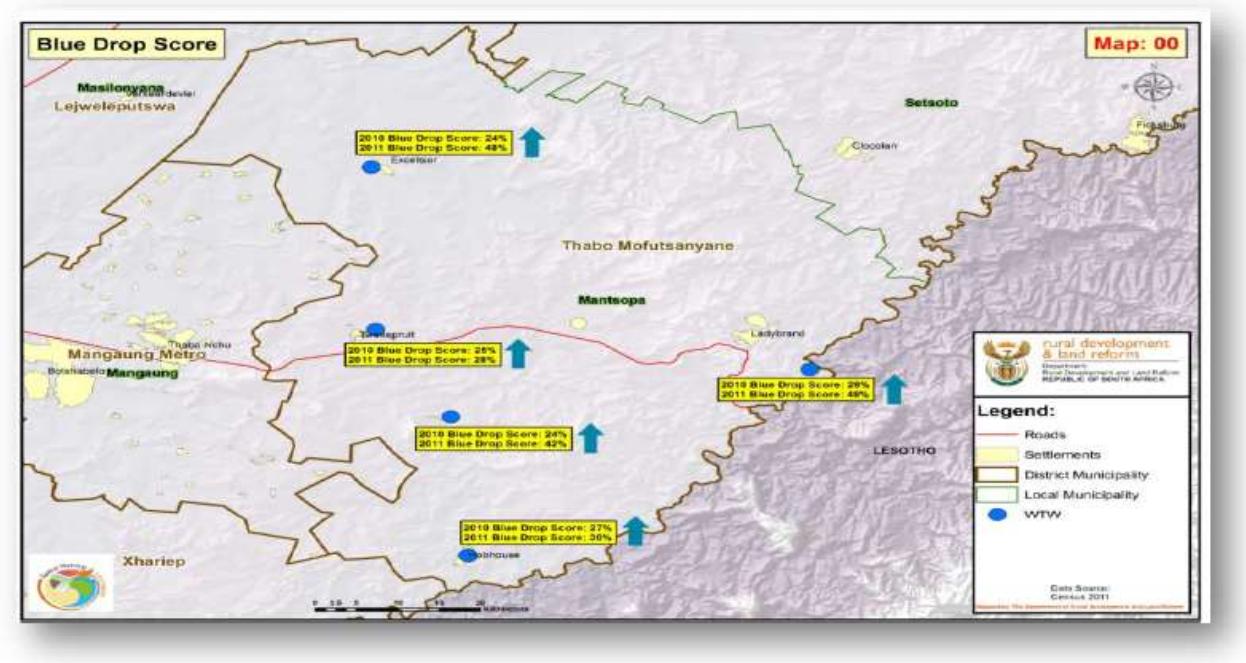
Age group and ward	Type of sector		
	In the formal sector	In the informal sector	Private household
35 - 64 (Adults)			
Ward 1	580	105	69
Ward 2	345	154	146
Ward 3	453	86	233
Ward 4	520	185	79
Ward 5	414	78	168
Ward 6	209	80	69
Ward 7	735	206	185
Ward 8	442	88	71
Ward 9	291	105	106
Mantsopa	**3 989**	**1 086**	**1 127**
15 - 34 (Youth)			
Ward 1	520	74	31
Ward 2	300	97	102
Ward 3	495	126	218
Ward 4	480	188	43
Ward 5	356	103	64
Ward 6	255	107	36
Ward 7	444	169	119
Ward 8	299	61	26
Ward 9	296	108	73
Mantsopa	**3 445**	**1 033**	**712**
15 - 64 Years			
Ward 1	1 100	178	100
Ward 2	645	251	248
Ward 3	948	212	451

Distribution of employment status and unemployment rate by age groups per ward in Mantsopa local municipality

Age group and ward	Employment status			Unemployment rate
	Employed	Unemployed	Not economically active	
35 - 64 (Adults)				
Ward 1	761	214	902	21.9
Ward 2	666	104	882	13.5
Ward 3	804	193	544	19.4
Ward 4	870	305	657	26.0
Ward 5	664	161	559	19.5
Ward 6	389	179	515	31.5
Ward 7	1169	84	545	6.7
Ward 8	617	217	638	26.0
Ward 9	505	99	673	16.4
Mantsopa	**6 447**	**1 556**	**5 915**	**19.4**
15 - 34 (Youth)				
Ward 1	637	434	1071	40.5
Ward 2	507	166	1338	24.7
Ward 3	866	370	962	29.9
Ward 4	777	677	1326	46.6
Ward 5	527	385	1136	42.2
Ward 6	441	434	983	49.6
Ward 7	761	181	692	19.2
Ward 8	392	439	904	52.8
Ward 9	484	246	1012	33.7
Mantsopa	**5 391**	**3 332**	**9 423**	**38.2**
15 - 64 Years				
Ward 1	1 399	648	1 973	31.7
Ward 2	1 173	270	2 220	18.7
Ward 3	1 671	562	1 506	25.2
Ward 4	1 648	982	1 983	37.3
Ward 5	1 191	546	1 695	31.4
Ward 6	830	613	1498	42.5
Ward 7	1 929	265	1 237	12.1
Ward 8	1 009	657	1 542	39.4
Ward 9	989	344	1 685	25.8
Mantsopa	**11 838**	**4 888**	**15 338**	**29.2**

Data source: Stats SA, Census 2011

Blue Drop Score
Source: Free State DWA (2011 Water Sector Development Plan)



(a) Description of the current land uses.

Land in the area and surroundings are mainly used for livestock farming.

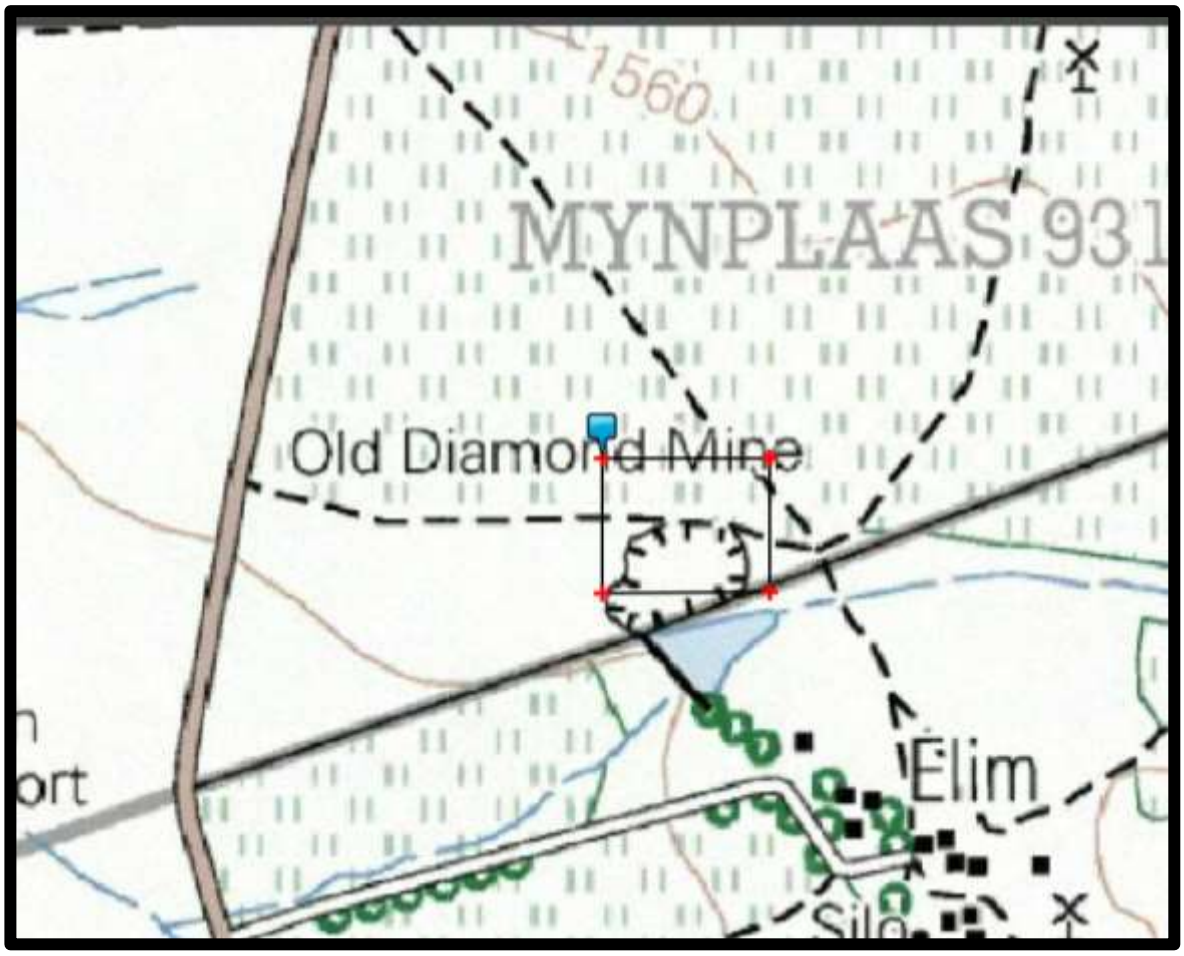
.

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

Please see Baseline Description above. Presence of an open pit and the adjacent natural and artificial wetland.

(d) Environmental and current land use map.

(Show all environmental, and current land use features)



v) Impacts and risks identified including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be mitigated

(Provide a list of the potential impacts identified of the activities described in the initial site layout that will be undertaken, as informed by both the typical known impacts of such activities, and as informed by the consultations with affected parties together with the significance, probability, and duration of the impacts. Please indicate the extent to which they can be reversed, the extent to which they may cause irreplaceable loss of resources, and can be avoided, managed or mitigated).

A list of impacts is hereby provided, a full impact analysis which includes the significance of the impacts, their nature, extent, duration and probability of the impacts.

Nature of Impact	Impact	Positive / Negative / Neutral Impact	Reversibility	Probability	Extent	Duration	Intensity	Significance	Mitigation Rating
CONSTRUCTION / SITE ESTABLISHMENT PHASE									
ACTIVITY:	**DEMARCATION OF SITE WITH VISIBLE BEACONS.**								
Boundary Demarcation	Over boundary mining resulting in loss of heritage resources and wetland pollution.	Neg	Irreversible	2	3	1	8	48	Low to Medium
ACTIVITY:	**ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN BOUNDARIES OF SITE.**								
Social, Security & Safety	Influx of job seekers to the mining site which results in a security risk. Unsuccessful job seekers which may informally settle in area. Potential danger to surrounding farmers.	Neg							
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies (wetland). Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	2	1	1	6	24	Low
Soils	Loss of soil & damage to soil characteristics. Potential hydrocarbon contamination to soils (machinery and equipment).	Neg	Irreversible	2	1	1	2	8	Low
Flora	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment.	Neg	Reversible	5	1	1	4	28	Low to Medium
Land Use	Veld fire might seriously impact on surrounding land-use of neighbouring farmers. Degrading of grazing potential for livestock farming.	Neg	Reversible	2	2	1	8	32	Low

Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	3	1	1	2	10	Low-Med
Archaeological & cultural sites	Loss of and disturbance to surface archaeological sites.	Neg	Irreversible	1	1	1	10	30	Low
Noise	Noise nuisance caused by mining equipment and machinery during the site establishment phase.	Neg	Reversible	5	3	1	6	48	Low
Air quality	Dust nuisance caused by the disturbance of soil. Dust nuisance due to processing pan plant transfer points. Dust nuisance due to loading and vehicles transporting the material.	Neg	Reversible	5	3	1	8	72	Low
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	5	1	1	4	28	Low
Fauna	Alienation of animals from the area. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. Impact to nocturnal insects and their predators and other nocturnal animals.	Neg	Reversible	4	3	1	6	48	Low
ACTIVITY: ABLUTION FACILITIES									
Noise	Noise nuisance generated by earthmoving machinery.	Neg	Reversible	5	1	1	2	14	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	1	1	2	10	Low
Soils	Portable Toilets. Potential harm through sewage leaks.	Neg	Reversible	3	1	1	2	8	Low
ACTIVITY: ACCESS ROADS (CURRENT FARM ROAD BE USED)									
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies (wetland). Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	3	1	1	6	24	Low
Soils	Loss of soil & damage to soil characteristics. Potential hydrocarbon contamination to soils (machinery and equipment)	Neg	Reversible	5	1	1	6	42	Low
Noise	Noise nuisance generated by earthmoving machinery.	Neg	Reversible	5	1	1	8	56	Low
Air quality	Dust nuisance caused by the disturbance of soil. Dust nuisance due to road use, loading and vehicles transporting the material.	Neg	Reversible	5	3	1	8	72	Low
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	5	3	1	4	36	Low
SITE OFFICES									
Hazardous Waste	Potential contamination through littering.	Neg	Reversible	5	1	2	4	32	Low

Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics.	Neg	Reversible	5	1	1	1	7	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	1	1	4	28	Low to Medium
Noise	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	1	1	4	28	Low
VEHICLE HARDPARK AND VISITORS PARKING AREA									
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table. er. Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential surface water contamination if leaks escape into the environment. .	Neg	Reversible	3	1	1	8	40	Low
Soils	Potential compaction of soils in neighbouring areas. Potential for loss of soil & damage to soil characteristics. Potential hydrocarbon contamination to soils.	Neg	Reversible	4	1	1	6	36	Low
Noise	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	1	1	6	36	Low to Medium
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	2	1	1	2	8	Low
WORKSHOP									
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table. Potential contamination through littering leaching into the groundwater table. Potential hydrocarbon contamination which may reach downstream surface water bodies. (wetland) Potential surface water contamination if leaks escape into the environment. .	Neg	Reversible	5	2	1	6	48	Low
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soil and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	2	1	6	48	Low
Flora	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment. Potential loss of protected or red data plant species.	Neg	Reversible	5	1	1	4	28	Low to Medium
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	2	1	4	32	Low to Medium
Noise	Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	2	1	4	32	Low to Medium
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	5	2	1	4	32	Low

ACTIVITY: BUNDED DIESEL AND OIL STORAGE FACILITIES									
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table during refueling of equipment. Potential contamination through littering leaching into the groundwater table. Potential hydrocarbon contamination which may reach downstream surface water bodies. (wetland) Potential surface water contamination if leaks escape into the environment. .	Neg	Reversible	5	2	1	6	48	Low
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	3	1	8	64	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	2	1	1	2	8	Low to Medium
Noise	Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	1	1	2	14	Low to Medium
ACTIVITY: GENERATOR AREA (BUNDED)									
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table during refueling of generator. Potential hydrocarbon contamination which may reach downstream surface water bodies. (wetland) Potential surface water contamination if leaks escape into the environment. .	Neg	Reversible	5	2	1	6	48	Low
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	1	1	6	42	Low
Noise	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	1	1	6	42	Low
ACTIVITY: WASTE AREA									
Hazardous Waste	Potential hydrocarbon contamination leeching into the water table. Reduction of local groundwater. Potential contamination through littering leeching into the groundwater table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies. Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential surface water contamination if leaks escape into the environment. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	5	2	1	6	48	Low

Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	2	1	6	48	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	2	1	8	56	Low to Medium
Fauna	Alienation of animals from the area. Potential risk to avifauna. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. New habitat available to fauna in the area and reduced activity should result in influx of animals to the area. Impact to nocturnal insects and their predators and other nocturnal animals.	Neg	Reversible	5	3	1	8	72	Low to Medium
ACTIVITY:	**STRIPPING AND STOCKPILING OF TOPSOIL FOR MINING**								
Hazardous Waste	Contamination of area with hydrocarbons or hazardous waste materials.	Neg	Reversible	3	2	1	4	24	Low
Soils	Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	4	1	1	4	24	Low to Medium
Flora	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment. Potential loss of protected or red data plant species.	Neg	Reversible	5	1	1	4	28	Low to Medium
Topography	Alteration of topography.	Pos	Irreversible	5	2	1	10	80	Low
Land Use	Veld fire might seriously impact on surrounding land-use (livestock / irrigation of neighbouring farmers). Degrading of grazing potential for livestock farming.	Neg	Reversible	2	1	1	10	40	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	2	1	10	80	Low to Medium
Archaeological & cultural sites	Loss of and disturbance to surface archaeological sites.	Neg	Irreversible	2	5	1	10	80	Low to Medium
Noise	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	2	1	8	56	Low
Air quality	Dust generation.	Neg	Reversible	5	2	1	8	56	Low
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	5	2	1	8	56	Low
Fauna	Alienation of animals from the area. Potential risk to avifauna. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. New habitat available to fauna in the area and reduced activity should result in influx of animals to the area. Impact to nocturnal insects and their predators and other nocturnal	Neg	Reversible	5	2	1	8	56	Low

	animals.								
OPERATIONAL PHASE									
ACTIVITY:	**MINING**								
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	2	1	8	64	Low
Hazardous Waste	Contamination of area with hydrocarbons or hazardous waste materials.	Neg	Reversible	5	2	1	8	64	Low
Flora	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment. Potential loss of protected or red data plant species.	Neg	Reversible	5	2	3	8	80	Low
Topography	Alteration of topography.	Pos	Irreversible	5	2	1	8	64	Low
Land Use	Veld fire might seriously impact on surrounding land-use (livestock / irrigation of neighbouring farmers). Degrading of grazing potential for livestock farming.	Neg	Reversible	5	2	1	8	64	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	3	1	8	72	Low to Medium
Archaeological & cultural sites	Loss of and disturbance to surface archaeological sites.	Neg	Irreversible	2	5	1	10	80	Low to Medium
Air quality	Dust generation.	Neg	Reversible	5	3	1	8	72	Low
Fauna	Alienation of animals from the area. Potential risk to avifauna. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. New habitat available to fauna in the area and reduced activity should result in influx of animals to the area. Impact to nocturnal insects and their predators and other nocturnal animals.	Neg	Reversible	5	3	1	8	72	Low
Surface water	Potential hydrocarbon contamination leeching into the water table. Reduction of local groundwater. Potential contamination through littering leeching into the groundwater table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies. Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential surface water contamination if leaks escape into the environment. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	3	3	1	8	56	Low
Groundwater	Potential hydrocarbon contamination leeching into the water table. Reduction of local groundwater. Potential contamination through littering leeching into the groundwater table	Neg	Reversible	3	4	1	10	70	Low

Social & Safety	Potential danger to landowner. Unsafe working environment for the employees. Safety risk posed by unslopped areas.	Neg	Reversible	3	4	1	10	70	Low
Dust	Dust nuisance caused by the disturbance of soil. Dust nuisance due to loading and vehicles transporting the material. Dust nuisance due to landscaping activities.	Neg	Reversible	5	3	1	8	64	Low
Archaeological & cultural sites	Loss of and disturbance to surface archaeological sites.	Neg	Irreversible	3	5	1	10	90	Low
Noise	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	3	1	10	90	Low
Air quality	Dust generation.	Neg	Reversible	5	3	1	10	90	Low
Air quality	Emissions caused by vehicles and equipment.	Neg	Reversible	5	3	1	10	90	Low
ACTIVITY:	**SCREENING AND CRUSHING OF MATERIAL**								
Noise	Noise nuisance generated by earthmoving machinery. Noise nuisance generated by the processing plant unit. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	3	1	10	90	Low
Hazardous Waste	Potential hydrocarbon contamination leaching into the water table. Reduction of local groundwater.	Neg	Reversible	5	3	1	8	64	Low
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soil and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	5	3	1	10	90	Low
Visual aspect	Deterioration in visual aesthetics of the area.	Neg	Reversible	5	3	1	10	90	Low to Medium
Air quality	Dust generation.	Neg	Reversible	5	3	1	10	90	Low to Medium
Fauna	Alienation of animals from the area. Potential risk to avifauna. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. Impact to nocturnal insects and their predators and other nocturnal animals.	Neg	Reversible	5	4	2	10	90	Low
Surface water	Potential hydrocarbon contamination leaching into the water table. Reduction of local groundwater. Potential contamination through littering and leaching into the groundwater table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies. Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential surface water contamination if leaks escape into the environment. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	2	1	1	2	8	Low

DECOMMISSIONING PHASE									
ACTIVITY:	SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)								
Soils	Potential compaction of soils in neighbouring areas. Potential contamination through littering. Potential for loss of soil & damage to soil characteristics. Initial increased potential for loss of soils and soil erosion. Potential hydrocarbon contamination to soils.	Neg	Reversible	4	2	4	10	100	Low
Soils	Soils replaced and ameliorated.	Pos	Reversible	4	2	4	10	100	Low
Flora	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment. Potential loss of protected or red data plant species.	Neg	Reversible	3	2	3	10	100	Low
Topography	Alteration of topography.	Pos	Irreversible	5	2	5	10	120	Low
Land Use	Veld fire might seriously impact on surrounding land-use (livestock / irrigation of neighbouring farmers). Degrading of grazing potential for livestock farming.(Low)	Neg	Reversible	3	2	4	10	110	Low
Visual aspect	Improved aesthetics through rehabilitation.	Pos	Reversible	5	2	5	10	120	Low to Medium
Noise	Noise nuisance caused by drilling, machinery for stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	Neg	Reversible	5	1	1	2	14	Low to Medium
Air quality	Dust nuisance caused by the disturbance of soil. Dust nuisance due to loading and vehicles transporting the material. Dust nuisance due to drilling and landscaping activities.	Neg	Reversible	5	1	1	2	14	Low
Fauna	Reintroduction of fauna attracted to flora to the area.	Pos	Reversible	5	3	5	10	130	Low
Fauna	Reintroduction of fauna attracted to flora to the area.	Pos	Reversible	5	3	5	10	130	Low
Groundwater	Potential hydrocarbon contamination leeching into the water table. Reduction of local groundwater. Potential contamination through littering leeching into the groundwater table. Potential silt-loading of drainage lines, downstream, and surrounding water bodies. Potential hydrocarbon contamination which may reach downstream surface water bodies. Potential surface water contamination if leaks escape into the environment. Potential impact of mining activities on the runoff and infiltration of storm water.	Neg	Reversible	5	3	2	10	100	Low
APPLICATION FOR CLOSURE									

Cumulative Impact Assessment

Cumulative effects are caused by the accumulation and interaction of multiple stresses affecting the parts and the functions of ecosystems. Of particular concern, is the knowledge that ecological system sometimes changes abruptly and unexpectedly in response to apparently small incremental stresses. For purposes of this report, cumulative impacts have been defined as "the changes to the environment caused by an activity in combination with other past, present, and reasonably foreseeable human activities".

Generally, as the sites are in non-existence and no major additional environmental impacts are expected, the cumulative impacts will generally be of medium significance.

Nature of Impact	Impact	Positive/Negative / Neutral Impact	Reversibility	Extent	Duration	Intensity	Probability	Significance	Mitigation
Traffic & Safety	Increased potential for road incidences.	Neg	Reversible	4	3	2	2	15	All intersections with roads will be clearly signposted. .

Noise	The noise impact should be contained within the boundaries of the property and will represent the current noise levels of the farm.	Neg	Reversible	2	3	3	4	16	**Noise Handling:** Trucks, machinery, and equipment will be regularly serviced to ensure acceptable noise levels are not exceeded. Point sources will be enclosed where possible. Silencers will be utilised where possible. Screens will be considered if I&AP complaints are received. The Applicant must ensure that employees and staff conduct themselves in an acceptable manner while on site No loud music may be permitted at the mining area. All mining vehicles must be equipped with silencers and maintained in a road worthy condition in terms of the National Road Traffic Act, 1996 (Act No 93 of 1996). Best practice measures will be implemented in order to minimise potential noise impacts. A qualified occupational hygienist must be contracted to quarterly monitor and report on the personal noise exposure of the employees working at the mine. The monitoring must be done in accordance with the SANS 10083:2004 (Edition 5) sampling method, as well as NEM: AQA, 2004, SANS 10103:2008.
Air quality	Increased dust generation will impact on the air quality of the receiving environment.	Neg	Reversible	3	3	3	4	17	**Dust Handling:** During periods of high wind spells, the stockpiles must be dampened to control dust emission. The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression. The liberation of dust into the surrounding environment must be effectively controlled by the use of, inter alia, water spraying, and / or other dust-allaying agents that contains no PCB's (e.g. DAS products). The site manager must ensure continuous assessment of all dust suppression equipment to confirm its effectiveness in addressing dust suppression. Speed on the haul roads must be limited to 20km/h to prevent the generation of excess dust. Roads must be sprayed with water or an environmentally friendly, dust-allaying agent that contains no PCB's (e.g. DAS products) if dust is generated above acceptable limits. Areas devoid of vegetation, which could act as a dust source, must be minimised and vegetation removal may only be done immediately prior to mining. The fallout dust monitoring system to be placed at CAB. All dust generating activities will comply with the National Dust Control Regulations, GN No R827 promulgated in terms of NEM: AQA (Act 39 of 2004), and ASTM D1739 (SANS 1137:2012). Activities will be minimised during extreme windy days, where the weather conditions will be considered during the operation of the quarry. Best practice measures will be implemented during the stripping of topsoil, and transporting of material from site to minimise potential dust impacts.
Air quality	Emissions will be contained within the property boundaries and will therefore affect only the landowner.	Neg	Reversible	3	3	3	4	17	**Emission Handling:** All vehicles will be regularly serviced to ensure they are in proper working condition and to reduce risk of excessive emissions

i) 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).

Methodology used in determining and ranking nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks. The impacts were individually described and assessed using the criteria drawn from the Environmental Impact Assessment (EIA) Regulations, published by the DEA in terms of the NEMA (Act 107 of 1998). The significance of each impact is assessed using the following formula (before and after mitigation):Significance Point (SP) = (Probability + Extent + Duration) x Intensity

The significance of the impacts was determined through the consideration of the following criteria:

Probability:	Provides a description of the likelihood/probability of the impact occurring
Extent:	Describes the spatial scale over which the impact will be experienced
Duration:	The period over which the impact will be experienced
Intensity:	The degree/order of magnitude/severity to which the impact affects the health and welfare of humans and the environment
Significance:	Overall significance of the impact on components of the affected environment and whether it is a negative or positive impact

SP > 75	Indicates **high** environmental significance	An impact that could influence the decision about whether or not to proceed with the project regardless of any possible mitigation.
SP 30 – 75	Indicates **moderate** environmental significance	An impact or benefit which is sufficiently important to require management and which could have an influence on the decision unless it is mitigated.
SP < 30	Indicates **low** environmental significance	Impacts with little real effect and which should not have an influence on or require modification of the project design.
+	Positive impact	An impact that is likely to result in positive consequences/effects.

REVERSIBILITY	**Reversible**	Impacts can be reversed through the implementation of mitigation measures
	Irreversible	Impacts are permanent and can't be reversed by the implementation of mitigation measures

MITIGATION RATING	**MITIGATED Degree impact can be mitigated**	High	*Impact 100% mitigated*
		Medium	*Impact >50% mitigated*
		Low	*Impact <50% mitigated*

Probability (P)		
None (N)	1	The possibility of the impact occurring is none, due either to the circumstances, design or experience (0%).
Possible (P)	2	The possibility of the impact occurring is very low, due either to the circumstances, design or experience (25%).
Likely (L)	3	There is a possibility that the impact will occur to the extent that provisions must therefore be made (50%).
Highly likely (H)	4	It is most likely that the impacts will occur at some stage of the development and plans must be drawn up before carrying out the activity (75%).
Definite (D)	5	The impact will take place regardless of any prevention plans, and only mitigation actions or contingency plans to contain the effect can be relied on (100%).
Extent (E)		
Footprint (F)	1	The impact area extends only as far as the activity which occurs within the total site area.
Site (S)	2	The impact could affect the whole site or a significant portion of the site.
Regional (R)	3	The impact could affect the area including the neighbouring farms, the transport route and/or the adjoining towns.
National (N)	4	The impact could have an effect that expands throughout the country.
International (I)	5	Where the impact has international ramifications that extend beyond the boundaries of the country.
Duration (D)		
The period over which the impact will be experienced		
Temporary (T)	1	0 – 3 years (or confined to the construction period).
Short term (S)	2	3 – 10 years (or confined to the construction and part of the operational period).
Medium term (M)	3	10 – 15 years (or confined to the construction and whole operational period).
Long term (L)	4	For the whole life of mine (including closure and rehabilitation period).
Permanent (P)	5	Beyond the anticipated lifetime of the project.
Intensity (I)		
Insignificant (I)	2	Will have a no or very little impact on the health and welfare of humans and environment
Low (L)	4	Will have a slight impact on the health and welfare of humans and environment
Moderate (M)	6	Will have a moderate impact on the health and welfare of humans and environment
High (H)	8	Will have a significant impact on the health and welfare of humans and the environment
Very high/ don't know (V)	10	Will have a severe impact on the health and welfare of humans and the environment

Cumulative: In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area. Indicated as a **Y**es or **N**o.

Assessment of each identified potentially significant impact and risk

(This section of the report must consider all the known typical impacts of each of the activities (including those that could or should have been identified by knowledgeable persons) and not only those that were raised by registered interested and affected parties).

NAME OF ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE
Whether listed or not listed (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc... etc. Etc.)	(Including the potential impacts for cumulative impacts) (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc..)		In which impact is anticipated (e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)	If not mitigated	(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc..) E.g. Modify through alternative method. Control through noise control. Control through management and monitoring. Remedy through rehabilitation	If mitigated
DEMARCATION OF SITE WITH VISIBLE BEACONS.	Over boundary mining resulting in loss of heritage resources and wetland pollution.	N/A	Construction / Site Establishment phase	High	Clear demarcation	Low to medium
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN BOUNDARIES OF SITE.	If the infrastructure is established within the boundaries of the approved mining area, no impact could be identified.	N/A	Construction / Site Establishment phase	N/A	N/A	N/A
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN BOUNDARIES OF SITE.	Portable Toilets Potential harm through sewage leaks.	Loss of topsoil will affect the rehabilitation of the processing area and the future agricultural / grazing potential of the site.	Construction / Site Establishment phase	Low-Med	Control: Storm water management. Site Management. Soil Management.	Low

ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. **STRIPPING AND STOCKPILING OF TOPSOIL** **MINING** **PLANT PROCESSING** **SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)**	Deterioration in visual aesthetics of the area.	The visual impact may affect the aesthetics of the landscape.	Operational & Decommissioning Phase	Low-Med	<u>Control:</u> Implementation of proper housekeeping.	Low-Med
	Dust nuisance caused by the disturbance of soil. Dust nuisance due to loading and vehicles transporting the material. Dust nuisance due to landscaping activities.	Increased dust generation will impact on the air quality of the receiving environment.		Med	<u>Control:</u> Dust suppression methods. Proper housekeeping.	Low
	Emissions caused by vehicles and equipment.	Emissions will be contained within the property boundaries and will therefore affect only the landowner.		Low-Med	<u>Control:</u> Emissions	Low
	Noise nuisance caused by machinery stripping and stockpiling the topsoil. Noise nuisance generated by earthmoving machinery. Noise nuisance generated during the landscaping phase.	The noise impact should be contained within the boundaries of the property and will represent the current noise levels of the farm.		Low	<u>Control:</u> Noise control measures. Proper housekeeping methods.	Low
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. **STRIPPING AND STOCKPILING OF TOPSOIL** **MINING** **PLANT PROCESSING** **SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)**	Loss of biodiversity. Potential damage to vegetation in neighbouring areas. Alien invasive encroachment. Potential loss of protected or red data plant species.	This will impact on the biodiversity of the receiving environment.	Site Establishment & Operational phase	Low-Med	Control & Remedy: Implementation of weed control and weed / invader plant. management plan Implement good housekeeping practices. Adhere to the recommendations made by the botanist.	Low-Med

ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. **STRIPPING AND STOCKPILING OF TOPSOIL** **MINING** **PLANT PROCESSING** **SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)**	Alteration of topography.	Topography.	Operational phase	Low-Med	N/A	Low-Med
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. **STRIPPING AND STOCKPILING OF TOPSOIL** **MINING** **PLANT PROCESSING** **SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)**	Loss of and disturbance to surface archaeological sites.	Artefacts or graves.	Operational phase	Low	Control: Survey area before site clearance.	Low
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. **STRIPPING AND STOCKPILING OF TOPSOIL** **MINING** **PLANT PROCESSING** **SLOPING, LANDSCAPING AND**	Alienation of animals from the area. Potential risk to avifauna. Potential harm through littering. Loss of food, nest sites, and refugia. Hindrance to nocturnal animals and change in behaviour of nocturnal prey and predators. A new habitat available to fauna in the area and reduced activity should result in influx of animals to the area.	The impact of the fauna of the area will not be significant as vibration and noise will drive the fauna away.	Operational phase	Med	Control: Implementation of fauna protection measures.	Low

REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)	Impact to nocturnal insects and their predators and other nocturnal animals.					
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN THE BOUNDARIES OF THE SITE. STRIPPING AND STOCKPILING OF TOPSOIL MINING PLANT PROCESSING SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)	Veld fire might seriously impact on surrounding land-use (livestock / irrigation of neighbouring farmers). Degrading of grazing potential for livestock farming.	Land use.	Operational phase	Low-Med	Control: Fire	Low
ESTABLISHMENT OF TEMPORARY BUILDINGS AND INFRASTRUCTURE WITHIN BOUNDARIES OF SITE	Influx of job seekers to the mining site which results in a security risk. Unsuccessful job seekers which may informally settle in area. Potential danger to surrounding farmers.	Social.	Construction / Site Establishment phase	Low-Med	Control through proper site management.	Low-Med
SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)	Soils replaced and ameliorated.	Loss of topsoil will affect the rehabilitation of the processing area and the future agricultural potential of the site.	Decommissioning phase	Med	Control: Storm water management. Site Management. Soil Management.	Low-Med
SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)	Reintroduction of fauna attracted to flora to the area.	Fauna returning to area.	Decommissioning phase	Low-Med	Control: Implementation of fauna protection measures	Low

SLOPING, LANDSCAPING AND REPLACEMENT OF TOPSOIL OVER DISTURBED AREA (FINAL REHABILITATION)	Improved aesthetics through rehabilitation.	The visual impact may affect the aesthetics of the landscape.	Decommissioning phase.	Low-Med	Control: Implementation of proper housekeeping	Low-Med

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

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

POSITIVE IMPACTS

Employment Opportunities: This operation will require the employment of yellow fleet and plant operators. It is anticipated that 17 people would be employed during the mining operation. The town of Thaba Pachoa is situated near the operation, and this operation will create employment to the local community.

CAB will place emphasis on the employment of women, the youth and people with disability.

SMME Support: The mining operation will require consumables for the operation which can be sourced from SMME's.

Training and Development: It is a requirement from the DMRE-Mine Health and Safety Inspectorate that training should be provided to operators. This training should be conducted by accredited trainers and assessors. This allow operators to be semi-skilled and be employed in other sectors of the mining industry.

Increase in the Disposable income for the area: The employment will increase the disposable income for the area.

Revenue Generated to the State and Local authorities:

CAB will have to pay taxes and levies to the State and the Local authorities.

NEGATIVE IMPACTS

Generation of waste: The mining activities will generate both the general and hazardous waste. The waste will be managed using the "triple R" principle, Reduce, Reuse and Recycle.

Introduction of Alien Invasive Plants on site: Invasive plants flourish where there is disturbances and ecological imbalances. The clearing of vegetation to establish drill pads and benches has the potential to attract invasive alien plants.

Criminal activities: Crime in South Africa is a social challenge faced by almost everyone, the presence of mining machinery and equipment on site will attract criminals who would seek to steal and sell such equipment. The Thaba Pachoa and Tweespruit area and the surrounding mines have been targeted for theft for numerous

items especially diesel.

A lucrative commodity for thieves is the steal of diesel as it is easily sellable.

Noise Generation: The site is located just over 20 kilometers from Thaba Pachoa and the impact would be negligible. The operation of machinery and and screening plant will create noise which would impact on the farm owner and the owners and occupants of neighbouring farms. The impact however would be minimal due to the distance and the fact that the operation would be conducted between 07:00 to 17:00.

Dust Pollution: During the whole mining period including, site establishment, construction, operation and closure numerous machines and equipment will create dust.

Water Use Competition: The area is known to have a limited source of water and is a scarce commodity. The dust suppression system on the screening plant and watering down of roads will be a major consumer of water which might give rise to conflict.

Loss of biodiversity: The mining activities will have an impact on the biodiversity.

Soil Contamination and disturbance to Soil structure: The mining method which will be employed will have an impact on the soil structure as it will have to be removed. Contamination can occur during the removal of the topsoil and successive soil layers and could further be contaminated by the oil, grease, diesel and hazardous substances spillage.

Influx of labour to site: The locals who are under severe economic conditions will flux to site seeking employment, this may also result in security threats to the operation. Influx of employment seekers from other areas of different culture might also frequent the site and the surrounding towns adding to cultural conflicts.

Traffic: The operation will contribute to the increase in traffic for the current road and transport infrastructure. This will be through the transport of the employees to the mining site and the logistics of the final product to the consumers.

iii) The possible mitigation measures that could be applied and the level of risk.

(With regard to the issues and concerns raised by affected parties provide a list of the issues raised and an assessment/ discussion of the mitigations or site layout alternatives available to accommodate or address their concerns, together with an assessment of the impacts or risks associated with the mitigation or alternatives considered).

Noise: The mining operation will be carried out during the day between 7:00 a.m. to 17:00; This must be eliminated through the engineering design of plant and equipment and the yellow machines fitted with silencer and planned maintenance performed.

Influx of labour to site: Labour will be sought form the town of Thaba Pachoa and Tweespruit only.

Clearing of vegetation: Vegetation clearing must be limited to working areas only and a vegetation clearing method statement signed off by a qualified environmental professional must always be onsite and its specifications adhered to;

Visual Impact: The portable ablution facilities, water tanks and any other infrastructure should be acquired with consideration for colour, natural earth, green and mat black options which will blend in with the surrounding area must be favoured;

Dust generation: Wet dust suppression will be undertaken to manage dust emissions from vehicle movement and other activities as and when needed;

Waste management: A system will be implemented, and sufficient waste bins will be provided on-site. The respective waste bins should be clearly identifiable. An employee environmental site induction should be conducted to address all controllable environmental impacts and create general awareness.

Water: Water requirement for the operation must be met through extraction from existing municipality connections ensuring that all by-laws are adhered to; A wetland is south of the study area.

Wildlife: The working areas must be barricaded to prevent access by wild life, and no hunting will be allowed on site and animals found onsite must be rescued and relocated outside the working areas; No snares and traps will be allowed;

Health and Safety: All Health and Safety measures required by the DMRE should be enforced in the open pit and related mining areas. The pitting operations must comply with the safety measures as required by the DMRE in the Mine Health and Safety Act.

Soil Impact Management: When establishing stockpiles, it will be erected in demarcated areas to avoid contamination and erosion through wash off. The stockpiles will be shaped to divert stormwater around the working areas. Stockpiled topsoil will be used during rehabilitation activities.

Traffic: Limit construction activities to the daytime and use establishment routes as far as possible. Drivers obey all the rules of the road and ensure an open channel of communication with the surrounding road users to act proactivity on possible issues. Consult with the relevant roads agency to determine whether CAB must contribute to road maintenance or alterations due to increase traffic on the roads. Access to the operation must be through current roads and clear signage will be erected to warn road users of heavy vehicle presence.

(ix) Motivation where no alternative sites were considered.

The proposed mining area is targeted as the current open pit strata suggests that there is gravel seams.

There is sufficient open area with no human settlements that could possibly create conflicts with any landowners;

There are a natural and artificial wetland south to the mining area and therefor no mining should be conducted in that area.

The site is located adjacent to an gravel road there will be no need to create long access roads;

The site is located outside any environmental sensitive areas such as protected or critical biodiversity areas;

Mining outside the current boundary will negatively impact on the historical significance of the area.

iv) Statement motivating the alternative development location within the overall site.
(Provide a statement motivating the final site layout that is proposed)

The site layout is mainly influenced by the distribution of the targeted geological stratum; however, the mining site is also influenced by its accessibility and environmental sensitivity. Thus, the pit sites are located away from all water drainages.

a) 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.)**

In order to identify the potential impacts associated with the proposed mining activities the following steps were undertaken:

(a) Stakeholder consultation

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 has capabilities of providing site specific information, which may not be available in desktop research material. Stakeholders are requested to provide their views on the project and any potential concerns which they may have. All comments and concerns are captured and formulated into the impact assessment.

(b) Desktop study

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 Agriculture GIS (CFM) such as the ground water vulnerability report;
- Municipal Integrated Development Plan; and
- Municipal Strategic Development Framework

(c) Site Visit

A site visit was conducted to perform the Basic Assessment Report.

Impacts assessment, rating and management

The ratings of the identified impacts were undertaken in a quantitative manner as provided in Impact
Assessment Section. The ratings were 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 the 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.

i) 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):-

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.
Phase 1 Heritage Impact Assessment of an existing open pit mine on farm Mynplaas 931, Thaba Phatswa, FS Province- Prepared by Paleo Field Services, Bloemfontein.	All excavation activities should be restricted to within the boundaries of the footprint.	X	No over boundary mining Page 67-Site boundary Page 78-section (j)-Impact statement

j) Environmental impact statement

(i) Summary of the key findings of the environmental impact assessment.

- The site lies within the Mesic Highveld Grassland Bioregion and is part of the Eastern Free State Clay Grassland.
- The area of disturbance will be limited to the mining site and as such the impacts can be managed, minimized and/or completely be prevented.
- These mining activities will be conducted in close vicinity of a natural and artificial wetland to its south and must thus remain on dry land. Since the mining activities will be undertaken on dry land the impacts on water sources are considered **very low;**
- The mining operation will be water intensive and as such water requirements will be significantly medium to high and so is the impact on water.
- Mining activities will have a significant impact on the socioeconomic status of the local community (Positive);
- The mining site is located outside town or residential areas, the noise and visual impacts will have negligible significance.
- No protected or endangered species are in the study area. (Red Book)
- Mining should be confined to within the site boundary to avoid negative impact to heritage resources.

(ii) Final Site Map

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

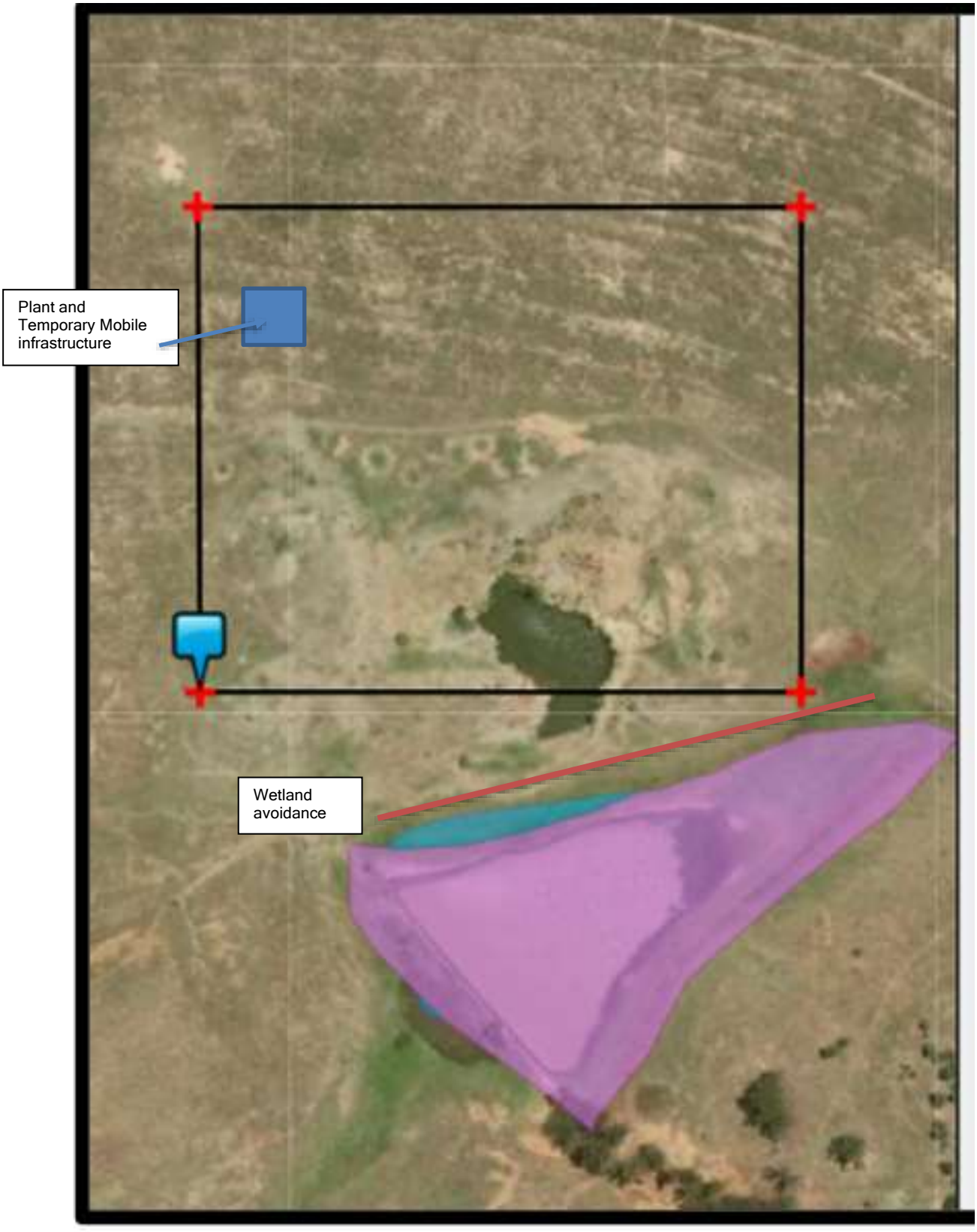


Figure 19: Final Site Map

(iii) Summary of the positive and negative implications and risks of the proposed activity and identified alternatives;

Kindly see page 72 above

k) Proposed impact management objectives and the impact management outcomes for inclusion in the EMPr;

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 EMPr as well as for inclusion as conditions of authorisation.

The proposed impact management objective is to create an environmentally sustainable mining operation by the management, remediation or elimination of the environment impacts through the implementation and adherence of mitigation measures as legislatively required.

- **Avoid at Source:** Reduce at Source: avoiding or reducing at source through the design of the Project (e.g., avoiding by siting or re-routing activity away from sensitive areas or reducing by restricting the working area or changing the time of the activity).

- **Abate on Site:** add something to the design to abate the impact (e.g., pollution control equipment, traffic controls, perimeter screening and landscaping).

- **Abate at Receptor:** if an impact cannot be abated on-site then control measures can be implemented off-site (e.g., noise barriers to reduce noise impact at a nearby residence or fencing to prevent animals straying onto the site).

- **Repair or Remedy:** some impacts involve unavoidable damage to a resource (e.g. agricultural land and forestry due to creating access, work camps or materials storage areas) and these impacts can be addressed through repair, restoration or reinstatement measures.

- **Compensate in Kind; Compensate Through Other Means:** where other mitigation approaches are not possible or fully effective, then compensation for loss, damage and disturbance might be appropriate (e.g., planting to replace damaged vegetation, financial compensation for damaged crops or providing community facilities for loss of fisheries access, recreation and amenity space).

Impact management objectives:

- Provide sufficient information to strategically plan the mining activities as to avoid unnecessary social and environmental impacts

- Provide sufficient information and guidance to plan the mining activities in a
- manner that would reduce impacts (both social and Environmental) as far as practicable.
- Ensure an approach that will provide the necessary confidence in terms of environmental compliance.

- Provide a management plan that is effective and practical for implementation

Through the implementation of the proposed mitigation measures, it is anticipated that the identified social and environmental impacts can be managed and mitigated effectively. Through the implementation of the mitigation and management measures it is expected that:

- Noise impacts can be managed through consultation and through the restriction of operating hours;

- The pollution of soil and water resources can be effectively managed through containment;

- Ecological impact can be managed through the implementation of pollution prevention measures, minimising land clearing, restricting working hours (faunal disturbances) and rehabilitation.

- Concerns regarding access control to the farm can be managed through the development and ensuring compliance to an appropriate access control procedure and a surface use agreement with the landowner for the use of the access road.

- Risks associated with crime can be mitigated through avoiding recruitment activities on site as well as monitoring and reporting.

- Visual impacts can be minimized through giving consideration to drill site, trenches and dump cutting areas, infrastructure placement and materials used.

l) Final proposed alternatives.

(Provide an explanation for the final layout of the infrastructure and activities on the overall site as shown on the final site map together with the reasons why they are the final proposed alternatives which respond to the impact management measures, avoidance, and mitigation measures identified through the assessment)

The final layout was done with due consideration of the following factors:
Site sensitivity for environmental features.
The highest probability of defining the mineral resource with the mining program.
Placement of plant and infrastructure to avoid any contamination to any water sources.
The least disturbance to the natural Fauna and Flora on the farms.
The proximity of the mineral resource to the mobile plant to minimise the development of access and on-mine roads.
The placement of infrastructure and plant would have the minimum negative impact on the geology, topsoil, landscape, noise and air pollution.

m) Aspects for inclusion as conditions of Authorisation.

Any aspects which have not formed part of the EMPr that must be made conditions of the Environmental Authorisation

Any aspects which have not formed part of the EMPr that must be made conditions of the Environmental Authorisation

No activities, with the exception of the soil sampling, may take place within 32m from any watercourse;

The mining and screening processing activities should be restricted to daytime;

All wastes generated must be disposed of at an appropriate registered landfill and disposal certificate be kept on site;

Clearing of vegetation should be limited to the working area only;

n) Description of any assumptions, uncertainties and gaps in knowledge.

(Which relate to the assessment and mitigation measures proposed)

If any assumptions, uncertainties, and gaps in knowledge arise during the operation, mitigation measures would be taken to eliminate any damage to the environment. The relevant Department would be notified in the event of such an occurrence.

The absence of heritage significance areas and artefacts was based on Environment Sensitivity GIS database (Screening Tool-Department of Environment)

o) Reasoned opinion as to whether the proposed activity should or should not be authorised

Reasons why the activity should be authorized or not.

It is my opinion that the activity be authorised as the effect of positive impacts far outweigh the negative. The operation proof to have a positive effect on the socio-economic conditions of the region. There is no reason why the activity should not be authorized. The disturbance on biodiversity can be fully reversed once the mining activities ceases;
The site is located outside sensitive and protected areas with no critical areas, the site is also dry with very few surface drainage; and
The acquire geological knowledge will contribute significantly to the academic world towards mapping of South African geology based on the mining results.

i) Conditions that must be included in the authorisation

(1) Specific conditions to be included into the compilation and approval of EMPr

The applicant must institute a programme for air quality monitoring and the results thereof submitted to the DMR, Northern Cape.

All wastes generated must be disposed of at an appropriate registered landfill and disposal certificate be kept on site;

An annual performance must be undertaken throughout the duration of the mining activities;

The financial provision must be reviewed annually to determine if it's still appropriate to site activities;

A complaints register must be kept on site, recording each complaint and how it was addressed.

(2) Rehabilitation requirements

None other than the implementation of the EMPr with particular reference to the mitigation measures as stipulated within the EMPr.

p) Period for which the Environmental Authorisation is required.

2 Years

q) Undertaking

Confirm 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 Basic assessment report and the Environmental Management Programme report.

An undertaken by the EAP and the client is provided for in Section 2 of the EMPr.

r) Financial Provision

State the amount that is required to both manage and rehabilitate the environment in respect of rehabilitation.

i) Explain how the aforesaid amount was derived.

The rehabilitation cost will be determined by using DMR guideline. The estimation of rehabilitation cost is **R 20 530.29,** due to the Mining activities conducted. The financial provision quantum guarantee will be paid at the DMRE rehabilitation account to cover the rehabilitation and/or management of negative environmental impacts.

No	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate	Multiplication factor	Weighing factor 1	Amount Rands
1	Dismantling of processing plant and structures (mobile)	m^3	600	16.59	1	1	9 954
2(A)	Demolition of steel buildings and structures	m^2	0	231.09	1	1	
2(B)	Demolition of reinforced concrete buildings and structures	m^2	0	340.55	1	1	
3	Rehabilitation of access roads remain for future use	m^2	0	41.35	1	1	
4(A)	Demolition and rehabilitation of electrical railway lines	m^2	0	401.36	1	1	
4(B)	Demolition and rehabilitation of non-electrical railway lines	m^2	0	218.92	1	1	
5	Demolition of housing and/or administration facilities (mobile)	m^2	24	462.17	1	0,5	5546.04
6	Opencast rehabilitation including final voids and ramps	ha	0.002	235221.83	1	1	470.44
7	Sealing of shafts and inclines	m^3	0	124.06	1	1	
8(A)	Rehabilitation of overburden and spoils	ha	0,002	161517.37	1	1	328.03
8(B)	Rehabilitation of processing waste deposits and evaporation ponds(non-polluting potential)	ha	0.	201116.96	1	1	
8(C)	Rehabilitation of processing waste deposits and evaporation ponds(polluting potential)	ha	0	584284.21		1	
9	Rehabilitation of subsided areas	ha	0	135246.47	1	1	
10	General surface rehabilitation	ha	0,004	25000.00	1	1	100
11	River diversions	ha	0	127949,00	1	1	
12	Fencing	m		145.95	1	1	
13	Water management	ha	0.00	48649.81	1	1	
14	2 to 3 years of maintenance and after care	ha	0.071	17027.43	1	1	1208.94
15(A)	Specialist study	sum				1	
15(B)	Specialist study	sum				1	
					Subtotal		17607.45
Preliminary & General				12% of subtotal if less than R100 M			1056.45
							18 663.9
Contingency 10%							1866.39
				Grand Total			20 530.29

ii) **Confirm that this amount can be provided for from operating expenditure.**
(Confirm that the amount, is anticipated to be an operating cost and is provided for as such in the Mining work programme, Financial and Technical Competence Report or Mining Work Programme as the case may be).

Confirmed by C A Bothma

s) Deviations from the approved scoping report and plan of study.

i) **Deviations from the methodology used in determining the significance of potential environmental impacts and risks.**
(Provide a list of activities in respect of which the approved scoping report was deviated from, the reference in this report identifying where the deviation was made, and a brief description of the extent of the deviation).

None

ii) Motivation for the deviation.
No deviation

t) Other Information required by the competent Authority

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

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

The mining activities will contribute to the local economy via its impact on job creation, total disposable income, and value-added activities. The operation would further support local businesses in Thaba Pachoa and Tweespruit for the supply of mining consumables.

Five measures of economic impacts can be defined to demonstrate the positive effect of the proposed operation on the local economy.

- The employment opportunities created
- The income that employees would derive
- The CAPEX spent on fixed assets
- The monthly operational expenditure for consumables (OPEX)
- Revenue- the total value of sales arising from the sale of Industrial minerals

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

The mining operation would be confined to the current opencast pit.

v) 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)**.

(i) Investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity:

Part A and Part B

(ii) Investigation of mitigation measures to keep adverse consequences or impacts to a minimum:

Part A and Part B

(iii) Investigation, assessment and evaluation of the impact of any proposed listed or specified activity on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii) of that Act;

Part A

(iv) Reporting on gaps in knowledge, the adequacy of predictive methods and underlying assumptions, and uncertainties encountered in compiling the required information:

Part A

(v) Investigation and formulation of arrangements for the monitoring and management of consequences for or impacts on the environment, and the assessment of the effectiveness of such arrangements after their implementation;

Part B

(vi) Consideration of environmental attributes identified in the compilation of information and maps contemplated in subsection (3);

Part A

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Draft environmental management programme.

a) Details of the EAP, (Confirm that the requirement for the provision of the details and expertise of the EAP are already included in the Environmental Authorisation Application)

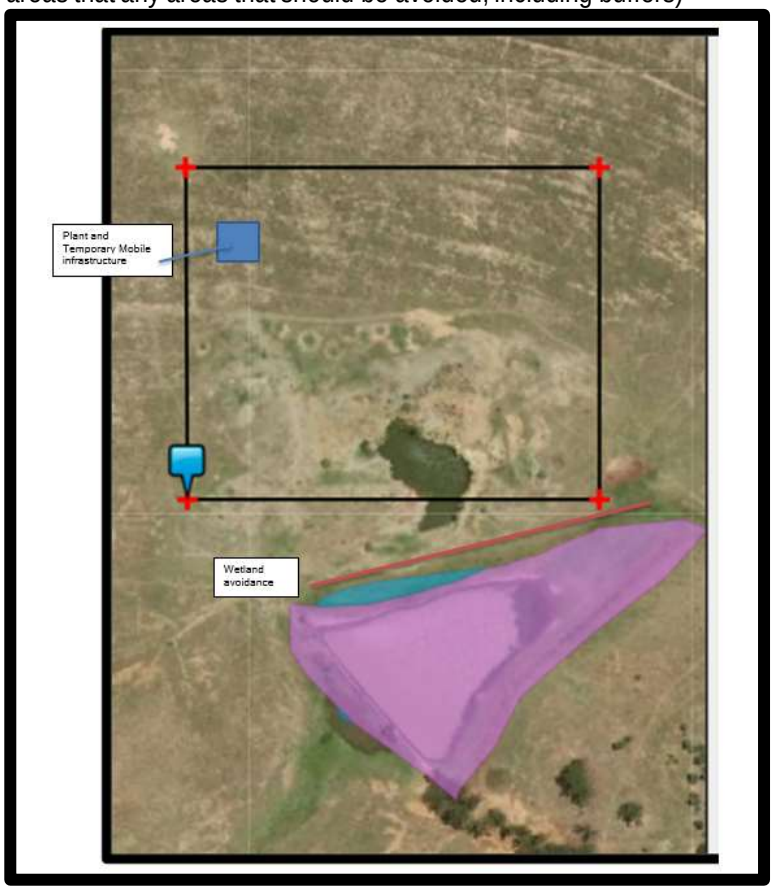
Confirmed by M A Goliath

b) 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 A, section (1)(h) herein as required).

Confirmed by M A Goliath

c) 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)



d) Description of Impact management objectives including management statements

i) **Determination of closure objectives.** (ensure that the closure objectives are informed by the type of environment described)

- Closure Objectives:
- The main objective would be to leave the environment in the same

state as before.

- To prevent sterilization of ore reserves.
- To prevent the erection of permanent structures.
- Establish a self-sustainable vegetation growth.
- To limit and rehabilitate any erosion features and prevent any damage to the soil capacity.
- To limit and manage the visual impact.
- Ensure the health and safety of all humans and animals that may beaffected by the activities.
- The last closure objective is that the mine is closed efficiently, cost effectively and in accordance with government policy.

ii) Volumes and rate of water use required for the operation.

The operation would require about 10 000 liters per day.

iii) Has a water use licence been applied for?

The Applicant will source water from the local municipality and store in Jo-Jo tanks on site.

iv) Impacts to be mitigated in their respective phases

Measures to rehabilitate the environment affected by the undertaking of any listed activity

ACTIVITIES **(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, offic es, ablution, stores, workshops, processing plant, storm w after control, berms, roads, pipelines,pow er lines, conveyors, etc…etc…etc.)	**PHASE** (of operation in which activity will take place. State; Planning and design, Pre-Construction' Construction, Operational, Rehabilitation, Closure, Post closure).	**SIZE AND SCALE of disturba ncece** (volumes, tonnages and hectares orm²)	**MITIGATION MEASURES** (describe how each of the recommendations in herein will remedy the cause of pollution or degradation and migration of pollutants)	**COMPLIANCE WITH STANDARDS** (A description of how each of the recommendations herein will comply w ith any prescribed environmental management standards or practices that have been identified by Competent Authorities)	**TIME PERIOD FOR IMPLEMENTATION** Describe the time period w hen the measures in the environmental management programme must be implemented Measures must be implemented when required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:- .. Upon cessation of the individual activity or. Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.
Site Establishment	Construction phase	6973m^2	Dust suppression by meansof water spraying. Rehabilitation, Ripping of compact ground. Seeding with indigenous plant. Speed limits of 30km per hour	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.	1 month
Temporal Roads construction	Construction on phase	300m^2	Dust suppression by means of water spraying. Roads will be ripped to a depth of 300mm in order to allow vegetation growth	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.	1 month

Fencing	Construction on phase	300m	Removal of fence during decommissioning phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles	1 month

				will be done.	
Temporal storage of hydrocarb	Operationall	25m^2	Demolishing of cement slabs and bund wall during decommissioning phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.	During last Phase
Mining	Operational phase	2 ha Opencast Bench Mining	Dust suppression by means of water spraying. Dust fall-out buckets. Concurrent rehabilitation willbe done by backfilling the trenches. Topsoil will be spread on topto allow plant succession. Site Access restriction Monitoring. Drip trays placed under each stationary equipment. Seeding with indigenous plant. Speed limit of 30km/h. Labelled Waste containers. Vegetation will be protectedby avoiding unnecessary clearance and by using existing roads at all times. No poaching allowed.	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.	Month 3-48

			Comply with occupational noise regulations of the Occupational Health and Safety Act, Act 85 of 1993. Provide ear plugs for noise		

			pollution.		
Decommissioning and final rehabilitation	Decommissioning phase	0.01ha	All infrastructure removed from site Waste will be disposed of at licenced facilities. Any contaminated soils will be cleaned and rehabilitated. All compacted surfaces willbe ripped to a depth of 300mm. The successful establishmentof vegetation is important to ensure the return of animalsin the area. if succession does not take place, a seeding programme in consultation with the ecologist should be implemented Boreholes when required will be capped and made safe, in agreement withthe landowner.	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.	Last Phase

e) Impact Management Outcomes

(A description of impact management outcomes, identifying the standard of impact management required for the aspects contemplate d in paragraph ();

ACTIVITY (w hether listed or not listed). **(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, pow er lines, conveyors, etc…etc…etc.)**.	**POTENTIAL IMPACT** **(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**ASPECTS AFFECTED**	**PHASE** In which impact is anticipated **(e.g. Construction, commissioning, operational Decommissioning, closure, post-closure)**	**MITIGATION TYPE** **(modify, remedy, control, or stop) through (e.g. noise control measures, storm - w ater control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g.** • **Modify through alternative method.** • **Control through noise control** • **Control through management and monitoring** • **Remedy through rehabilitation.**	**STANDARD TO BE ACHIEVED** **(Impact avoided, noise levels, dust levels, rehabilitation standards, end use objectives) etc.**
Site Establishment	Dust and noise Vegetation disturbance	Air and noise Pollution. Fauna and Flora	Construction phase	Dust suppression by means of water spraying. Rehabilitation, Ripping of compact ground. Seeding with indigenous plant. Speed limits of 30km per hour	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.
Temporal Roads construction	Dust and noise Vegetation disturbance	Air and noise Pollution. Fauna and Flora	Construction phase	Dust suppression by means of water spraying. Roads will be ripped to a depth of 300mm in order to allow vegetation growth	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.
Fencing	Vegetation disturbance	Fauna and Flora	Construction phase	Removal of fence during decommissioning phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be

					done.
Temporal storage of hydrocarb	Surface and ground water contamination	Contamination	Operational	Demolishing of cement slabs and bund wall during decommissioning phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.
Mining	Dust and noise Vegetation disturbance Drainage	Air and noise Pollution. Fauna and Flora Drainage pattern	Operational phase	Dust suppression by meansof water spraying. Dust fall-out buckets. Concurrent rehabilitation will be done by backfilling the trenches. Topsoil will be spread on top to allow plant succession. Site Access restriction Monitoring. Drip trays placed under each stationary equipment. Seeding with indigenous plant. Speed limit of 30km/h. Labelled Waste containers. Vegetation will be protectedby avoiding unnecessary clearance and by using existing roads at all times. No poaching allowed. Comply with occupational noise regulations of the	Compliance with NEMA, NWA, MPRDA, NEM:WA , MPRDA and the NEMA principles will be done.

				Occupational Health and Safety Act, Act 85 of 1993. Provide ear plugs for noise pollution.	
Decommissioning and final rehabilitation	Dust and noise Vegetation disturbance Drainage. Surface and ground water contamination	Air and noise Pollution. Fauna and Flora Drainage pattern. Surface and ground water contamination	Decommissioning phase	All infrastructure removed from site Waste will be disposed of at licenced facilities. Any contaminated soils willbe cleaned and rehabilitated. All compacted surfaces willbe ripped to a depth of 300mm. The successful establishment of vegetation is important to ensure the return of animals in the area. if succession does not take place, a seeding programme in consultation with the ecologist should be implemented	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.

f)

Impact Management Actions

(A description of impact management actions, identifying the manner in which the impact management objectives and outcomes co ntemplated in paragraphs (c) and (d) will be achieved).

ACTIVITY whether listed or not listed.	**POTENTIAL IMPACT**	**MITIGATION TYPE**	**TIME PERIOD FOR IMPLEMENTATION**	**COMPLIANCE WITH STANDARDS**
(E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, pow er lines, conveyors, etc…etc…etc.).	**(e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc….etc…)**	**(modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc)** **E.g.** • **Modify through alternative method.** • **Control through noise control** • **Control through management and monitoring** **Remedy through rehabilitation.**	Describe the time period w hen the measures in the environmental management programme must be implemented Measures must be implemented w hen required. With regard to Rehabilitation specifically this must take place at the earliest opportunity. .With regard to Rehabilitation, therefore state either:-.. Upon cessation of the individual activity or.Upon the cessation of mining, bulk sampling or alluvial diamond prospecting as the case may be.	(A description of how each of the recommendations in 2.11.6 read with 2.12 and 2.15.2 herein will comply with any prescribed environmental management standards or practices that have been identified by Competent Authorities)
Site Establishment	Dust and noise Vegetation disturbance	Dust suppression by means of water spraying. Rehabilitation, Ripping of compact ground. Seeding with indigenous plant. Speed limits of 30km per hour	1 month	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.

Temporal Roads construction	Dust and noise Vegetation disturbance	Dust suppression by means of water spraying. Roads will be ripped to a depth of 300mm in orderto allow vegetation growth	1 month	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.
Fencing	Vegetation disturbance	Removal of fence during decommissioning phase	1 month	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.
Temporal storage of	Surface and ground water contamination	Demolishing of cement slabs and bund wall during decommissioning phase	During last Phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.

Mining	Dust and noise Vegetation disturbance Drainage	Dust suppression by means of water spraying. Dust fall-out buckets. Concurrent rehabilitation will be done by backfilling the trenches. Topsoil will be spread on top to allow plant succession. Site Access restriction Monitoring. Drip trays placed under each stationary equipment. Seeding with indigenous plant. Speed limit of 30km/h. Labelled Waste containers. Vegetation will be protected by avoiding unnecessary clearance and by using existing roads at all times. No poaching allowed. Comply with occupational noise regulations of the Occupational Health and	Month 2-22	Compliance with NEMA, NWA, MPRDA, NEM:WA , MPRDA and the NEMA principles will be done.

		Safety Act, Act 85 of 1993. Provide ear plugs for noise pollution.		
Decommissioning and final rehabilitation	Dust and noise Vegetation disturbance Drainage. Surface and ground water contamination	All infrastructure removed from site Waste will be disposed ofat licenced facilities. Any contaminated soils will be cleaned and rehabilitated. All compacted surfaces will be ripped to a depthof 300mm. The successful establishment of vegetation is important toensure the return of animals in the area. if succession does not takeplace, a seeding programme in consultation with the ecologist should be implemented.	Last Phase	Compliance with NEMA, NWA, MPRDA, NEM:WA and the NEMA principles will be done.

i) Financial Provision

(1) Determination of the amount of Financial Provision.

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

Closure Objectives:

- The main objective would be to leave the environment in the same state as before.
- To prevent sterilization of ore reserves.
- To prevent the erection of permanent structures.
- Establish a self-sustainable vegetation growth.
- To limit and rehabilitate any erosion features and prevent any damage to the soil capacity.
- To limit and manage the visual impact.
- Ensure the health and safety of all humans and animals that maybe affected by the activities.
- The last closure objective is that the mine is closed efficiently, cost effectively and in accordance with government policy

(b) Confirm specifically that the environmental objectives in relation to closure have been consulted with landowner and interested and affected parties.

Confirmed by C Bothma

(c) Provide a rehabilitation plan that describes and shows the scale and aerial extent of the main mining activities, including the anticipated mining area at the time of closure.

Infrastructure Areas:
On completion of the prospecting operation, the various surfaces, including the access roads, the office area, storage areas, and the screening plant site, will be rehabilitated as follows:

All remaining material on the surface will be removed to the original topsoil level. This material will then be backfilled into the depressions. Any compacted area will then be ripped to a depth of 300mm, where possible the topsoil or growth medium returned and landscaped.

All infrastructure, equipment, screening plant, and other items used during the operational period will be removed from site.

On completion of operations, all buildings, structures, or objects on the office site will be dealt with in accordance with Regulation 44 of the Minerals and Petroleum Resources Development Act, 2002, which states:

1. When a mining right, prospecting right, retention permit or prospecting permit lapses, is cancelled or is abandoned or when any prospecting or prospecting operation comes to an end, the holder of such right or permit may not demolish or remove any building, structure or object —
(a) which may not be demolished or removed in terms of any other law;
(b) which has been identified in writing by the Minister for purposes of this section; or
(c) which is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.
2. The provision of subsection (1) does not apply to bona fide prospecting equipment, which may be removed.
Topsoil and Stockpile Deposits: Disposal facilities
Waste material of all description inclusive of receptacles, scrap, rubble and tyres will be removed entirely from the prospecting area and disposed of at a recognised landfill facility. It will not be
permitted to be buried or burned on the site.

On-going seepage, control of rainwater
No monitoring of ground or surface water will take place, except if requested by the DWS.

Long term stability and safety
It will be the objective of mine management to ensure the long- t e r m stability of all rehabilitated areas including the backfilled depressions. This will be done by the monitoring of all areas until a closure certificated has been issued.
Final rehabilitation in respect of erosion and dust control will be done. Self-sustaining vegetation will result in the control of erosion and
dust and no further rehabilitation is planned.

Final rehabilitation roads
After rehabilitation has been completed, all roads will be ripped or ploughed, fertilized, and seeded.

Submission of information
Reports on rehabilitation and monitoring will be submitted annually to the Department of Mineral Resources and Energy — Welkom.

Maintenance (Aftercare)
Maintenance after closure will mainly concern the regular inspection and monitoring and/or completion of the re-vegetation programme.

The aim of this Environmental Management Plan is for rehabilitation to be stable and self-sufficient, so that the least possible aftercare is required.

The aim with the closure of the mine will be to create an acceptable post-mine environment and land-use. Therefore, all agreed commitments will be implemented by Mine Management.

D. After-effects following closure:

Acid mine drainage
No potential for bad quality leach or acid mine drainage development exists after mine closure (in this case all Kimberlitic material will be removed).

Long term impact on ground water
No after effect on the groundwater yield or quality is expected.

Long-term stability of rehabilitated land
One of the main aims of any rehabilitated ground will be to be self-sustaining and stable end result.
Cleaning of all drill bits material concurrently and replacing of topsoil where available.

Submissions of Information
Reports on rehabilitation and monitoring will be submitted annually to the Department Mineral Resources and Energy -Welkom.

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

The ultimate rehabilitation of the mining site involves the sloping, levelling, replacement of topsoil and the seeding of a grass seed mix in areas that does not recover acceptably as agreed to with the landowner. This will ensure that the site could be regarded as safe for humans and animals and will also ensure that the site is stable from an erosion point of view and available for future use.

(e) **Calculate and state the quantum of the financial provision required to manage and rehabilitate the environment in accordance with the applicable guideline**.

No	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighing factor 1	E=A*B*C*D Amount Rands
1	Dismantling of processing plant and structures (mobile)	m^3	600	16.59	1	1	9 954
2(A)	Demolition of steel buildings and structures	m^2	0	231.09	1	1	
2(B)	Demolition of reinforced concrete buildings and structures	m^2	0	340.55	1	1	
3	Rehabilitation of access roads remain for future use	m^2	0	41.35	1	1	
4(A)	Demolition and rehabilitation of electrical railway lines	m^2	0	401.36	1	1	
4(B)	Demolition and rehabilitation of non-electrical railway lines	m^2	0	218.92	1	1	
5	Demolition of housing and/or administration facilities (mobile)	m^2	24	462.17	1	0,5	5546.04
6	Opencast rehabilitation including final voids and ramps	ha	0.002	235221.83	1	1	470.44
7	Sealing of shafts and inclines	m^3	0	124.06	1	1	
8(A)	Rehabilitation of overburden and spoils	ha	0,002	161517.37	1	1	328.03
8(B)	Rehabilitation of processing waste deposits and evaporation ponds(non-polluting potential)	ha	0.	201116.96	1	1	
8(C)	Rehabilitation of processing waste deposits and evaporation ponds(polluting potential)	ha	0	584284.21		1	
9	Rehabilitation of subsided areas	ha	0	135246.47	1	1	
10	General surface rehabilitation	ha	0,004	25000.00	1	1	100
11	River diversions	ha	0	127949,00	1	1	
12	Fencing	m		145.95	1	1	
13	Water management	ha	0.00	48649.81	1	1	
14	2 to 3 years of maintenance and after care	ha	0.071	17027.43	1	1	1208.94
15(A)	Specialist study	sum				1	
15(B)	Specialist study	sum				1	
					Subtotal		17607.45
Preliminary & General				12% of subtotal if less than R100 M			1056.45
							18 663.9
Contingency 10%							1866.39
				Grand Total			20 530.29

(f) **Confirm that the financial provision will be provided as determined.**

Confirmed by C A Bothma

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

g) Monitoring of Impact Management Actions
h) Monitoring and reporting frequency
i) Responsible persons
j) Time period for implementing impact management actions
k) Mechanism for monitoring compliance

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
Topography	To minimise the reduce of land capability	To ensure that rehabilitation post-mining slopes are stable free draining and no slopes have an angle in excess of 20 degrees	Site Manager/ Environmentalist	Monitoring will be done ona annual basis to ensure that the levels and the slopes are in order
Soil	To prevent soil pollution; To limit soil compaction; To curb soil erosion; and To reinstate a growth medium able to sustain plant life.	Soil depth and chemical composition will be tested, and possible erosion damage will be assisted and rectified	Site Manager/ Environmentalist	Monitoring will be done ona annual basis or after a heavy rain event
Air quality	To control the incidence of	To ensure that the mine minimise dust omission, so	Site Manager/ Foreman appointed SHE Consultant	Visual inspection will be done and managed by

	unacceptable levels of dust pollution on site	that dust does not become a nuisance for affected parties and health hazard		dust suppression by a water tanker. Quarterly test will also be conducted by a Health and Environmental Consultant and submitted to Mine Health and Safety for monitoring purposes
Fauna	To minimise vegetation destruction in drill areas, and therefore a habitat for wildlife; and To eliminate poaching and the extermination of animal species within the boundaries of the study area as well as the surroundings area.	To ensure that the species diversity and abundance is not significantly reduced	Site Manager/ Environmentalist	Monitoring will be done at rehabilitated area on annual basis to investigatespecies diversity and abundance
Flora	To minimise the destruction of vegetation units; and To control invasionof exotic and invasive plant species.	To ensure that the rehabilitated areas become self-maintaining	Site Manager/ Environmentalist	Monitoring will be done at the rehabilitated areas ona twice a year basis (mid-summer and mid- winter). Where species diversity and vegetation cover will be investigated

Noise	To control the incidence of unacceptable noise levels on site	The management objective willbe to reduce any level of noise,shock and lightning that may have an effect on persons and animals, both inside the plant and that which may migrate outside the plant area.	Site Manager/ Foreman appointed SHE Consultant	Quarterly reports on fall- out noise monitoring will be conducted as required. If any complaints are received from the public or state departments regarding noise levels the levels will be monitored at prescribed monitoring points
Surface water	To conserve water; and To eliminate the contamination of run-off and source of the water surface	There are no sources in the vicinity of the mine.	Site Manager/ Water supply	No monitoring will be doneto monitor the quality of the surface water
Ground water	To minimise and prevent as far as practically possible the contamination of the ground water	No ground water is used	Site Manager/ Water supply	No monitoring will be doneto monitor the levels and quality

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

Annual Performance Assessment and Environmental Audit will also be conducted and submitted

m) Environmental Awareness Plan

(1) Manner in which the applicant intends to inform his or her employees of any environmental risk which may result from their work.

- An Environmental, Health and Safety induction programme will be provided to all employees prior to commencing work, and they will sign acknowledgement of the induction

- A daily "toolbox talk" will be held prior to commencing work, which will include discussions on health, safety and environmental considerations. The toolbox talks should be led by the Site Manager.

ENVIROMENTAL AWARNESS TRAINING PROGRAMME PROCEDURES

Natural resources are limited and not always renewable and it is the responsibility of management to ensure that all employees are trained to understand that impact of their tasks on the environment and to reduce them wherever possible. Environmental awareness training must be given to new employees on the site and any contractors who may come onto the site for a short period of time. Refresher training must be givento permanent employees on an annual basis. The objective of this procedure is to ensure that all employees on the, including contractors, are competent to perform their duties, thereby eliminating negative impacts on their safety, health and the environment

The Environmental topics to be covered in awareness training should include the following:

- **RESOURCE MANAGEMENT**

(i) The importance of saving water
(ii) South Africa is a water scares country and rivers are polluted
(iii) Do not throw litter into river or water drains
(iv) Do not dispose of oils in sewers

(b) Air pollution- Climate changes

(i) The use of fossil fuels is increasing the amount of greenhouse gases that are discharged to the atmosphere. Share transport or use public transport
(ii) Don't burn any rubbish, the smoke pollution the air

(iii) Plant trees, they clean the air, provide us with oxygen and removed the greenhouse gas carbon dioxide from the air

(c) Soil conservation

(i) Prevent over grazing of farmlands, keep vegetation on surface on theland to prevent soil erosion

(ii) Plant trees

- **HAZARDOUS SUBTANCE USE AND STORAGE**

a. Solvents, petrol, diesel, insecticides, chlorine, detergents, chemical fertilisers and harmful to the environment and to your health. Use them sparingly and do not let them get into the water system. Containers must be disposed of to a licensed hazardous waste disposal facility.
b. Hazardous substances must be stored and used correctly
c. Ensure that 16 points Material Substances Safety Data Sheets (MSDS) are available at point of store
d. Compressed gas storage requirement
e. Flammable substances store requirement

- **INCIDENT AND EMERGENCY REPORTING**

a. The company must have an emergency/ incident reporting system whereby environmental incidents can be reported and actioned to mitigate and follow up on

- **OIL/DIESEL/PETROL SPILL CLEAN UP**

a. All employees who work with machines and vehicles must be instructed how to prevent and clean up an oil or diesel spill appropriately. Spill kits must be available on site drip trays must be used when servicing vehicles

- **CONSERVATION OF WATER**

a. Campaign to save water on site
b. Clean water is expensive and potable water must be used carefully
c. Prevent pollution of water by preventing spills and dispose of wastes properly

- **CONSERVATION OF VEGETATION**

Plants, grasses and trees are very important to our existence on the earth, they provide food, fuel, shelter, raw materials and they clean the air. Indigenous plants are especially important for muti and the whole ecology of life. Human activities are destroying the natural forests of the earth. The natural forests are the “lungs” of the planet and unfortunately, they are being cleared faster than they can be regenerated

a. EIA’s are to be done before virgin bush can be cleared
b. Vegetation cover reduces water and topsoil loss from the ground, do not clear vegetation unnecessarily
c. Indigenous trees provide shade that attract wild birds

d. Do not chop down indigenous trees without good reason
e. Implement a tree planting programme
f. Remove alien invasion trees in your area such as Prosopis, Syringa and Pepper trees, Cactus plants.

WASTE MANAGEMENT

a. Employees must be instructed on how to tell the difference between hazardous waste and general waste.
b. Employees should be trained on how to separate hazardous waste and general waste and where to dispose of these wastes

(2) Manner in which risks will be dealt with in order to avoid pollution or the degradation of the environment.

Air Quality:
Control the incidence of unacceptable dust pollution on site.

Surface water:
Conserve water and eliminate the contamination of run-off and sources of surface water.

Ground water:
Minimise and prevent as far as practically possible the contamination of ground water.

Flora:
Minimise the destruction of vegetation.
Control invasion by exotic and invasive plant species.
Fauna:
Minimise the destruction of vegetation and therefore habitat for wildlife; and
Eliminate poaching and the extermination of animal species.

Noise:
Control the incidence of unacceptable noise levels on site.

Aesthetics:
Minimise aesthetics disturbance; and
Reduce the visual impact of the prospecting operation through continuous rehabilitation.

Soils:
Prevent soil pollution.
Limit soil compaction.
Curb soil erosion.
Reinstate a growth medium able to sustain plant life.

Land capability:
Minimise the reduction of land capability.

Sensitive landscapes:
Protect sensitive landscapes from potential negative impacts.

Waste Management:
Demarcated sites for waste.

n) Specific information required by the Competent Authority
(Among others, confirm that the financial provision will be reviewed annually).

Quarterly reports on fall-out and nuisance dust and noise monitoring will be conducted and incorporated into the annual reports forwarded to the Principal Inspector of Mines, Health and Safety Inspectorate, Welkom.
Fauna and Flora will be monitored annually for the Performance Assessment Report. Annual performance Assessment and financial quantum reports will be conducted.

2) UNDERTAKING

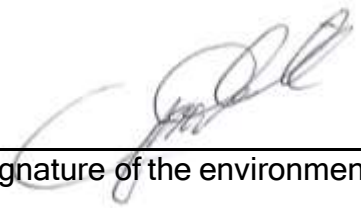
The EAP herewith confirms

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:

GOLCOR (PTY) LTD

Name of company:

26 November 2022

Date:

-END-

REFERENCES AND ACKNOWLEDEGEMENTS

1.Grassland Biome 8

Scott-Shaw, George J. Bredenkamp, Leslie W. Powrie, Louis Scott, Kelson G.T. Camp, Sarel S. Cilliers, Hugo Bezuidenhout, Theo H. Mostert, Stefan J. Siebert, Pieter J.D. Winter, John E. Burrows, Linda Dobson, Robert A. Ward, Marc Stalmans, Edward G.H. (Ted) Oliver, Frances Siebert, Ernst Schmidt, Khotso Kobisi and Lerato Kose G

2. CFM Agriculture GIS

3. National Landcover 2014 DEA

4. National Environmental Management Act, 1998(Act 107 of1998) (as Amended) NEMA

5. Meteoblue

6. IDP Mantsopa Local Municipality 2019 to 2020

7. SANBI GIS

APPENDICES

ADVERTISEMENT

APPENDIX A

OIS OMGEWINGSIMPAKSTUDIE

EIA PUBLIC PARTICIPATION PROCESS

Cornelius Abraham Bothma has in terms of the Mineral and Petroleum Resources Development Act, 2002, (Act 28 of 2002 as amended), the National Environmental Management Act, 1998, (Act 107 of 1998 as amended), lodged an application for a Mining Permit to The Department of Mineral Resources and Energy, Free State, on the following farm and minerals

DMR REFERENCE FS30/5/1/3/2/10352 MP

Farm: A Portion of the farm Mynplaas 1120, Magisterial District of Ladybrand.

Minerals: Diamonds (General and Kimberlite)

LISTED ACTIVITIES:

GNR 327 LN1, Activity 21 Any activity including the operation of that activity which requires a mining permit in terms of section 27 of the Mineral and Petroleum Development Act, 2002 (Act No.28 of 2002), including- (a) associated infrastructure, structures and earthworks directly related to the extraction of a mineral resource: or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing but exclude the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies (Activity 21 of Listing Notice 1)

The Draft BAR will be available at the Mantsopa Local Municipal Offices and Library in Tweespruit and the Municipal Office in Thaba Patchoa from 25th July 2022 for a period of 30 Days

Address for Correspondence and Public Meeting

All interested and/or Affected parties are hereby invited to register on the application database (goliathmalcolm@yahoo.com) or lodge any complaints in writing to M A Goliath at the postal address below.

Public Meeting: Amima-weh Resort Hall, at Mynplaas 1120 farm, 12:00 on the 12th August 2022.

23 Goedehoop Avenue, Royldene, Kimberley, 8301

MYNPLAAS 1120

AUG 5(NE)4045

BOEDELKENNISGEWINGS

Placed in Volksblad on Friday 5th of August 2022

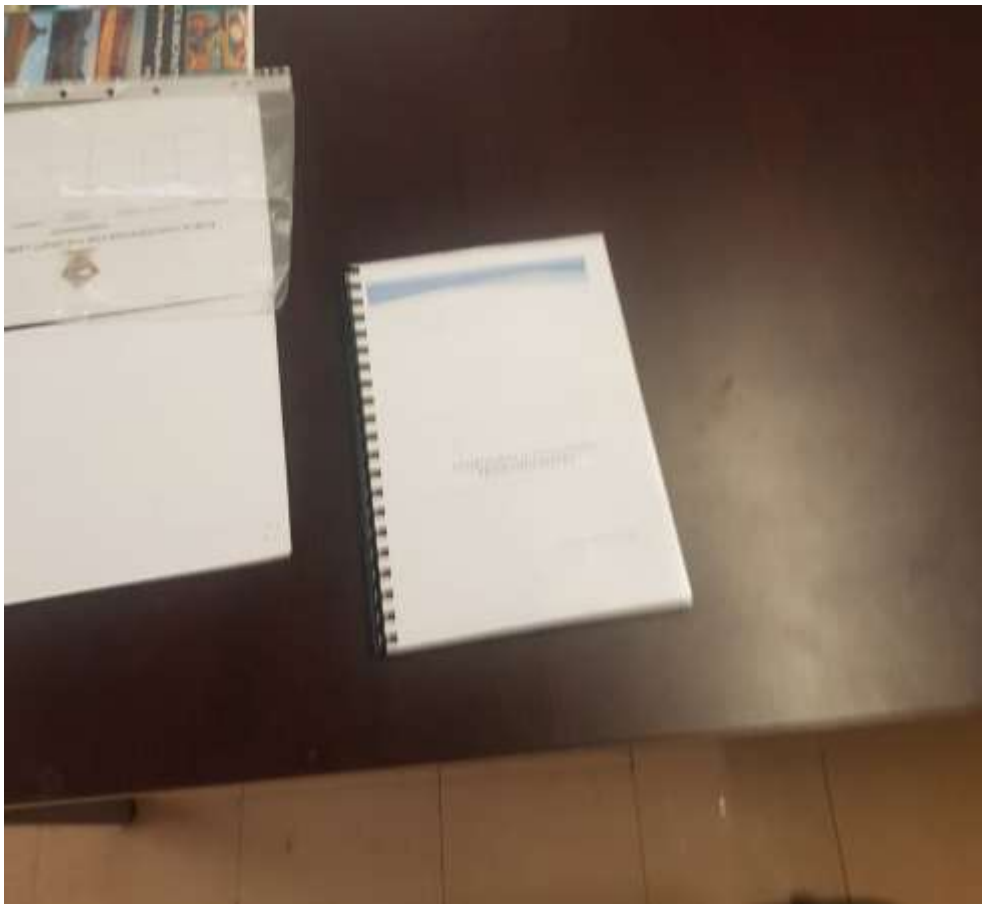
PUBLIC NOTICE BOARD AND PLACEMENT OF BASIC ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

Notice boards will be placed at conspicuous places on the fence of the study area, the farm entry gate the Local Municipality Offices and Library in Tweespruit, the mobile municipal Office in Thaba Pachoa. **APPENDIX B**

Local Municipal building at Tweespruit

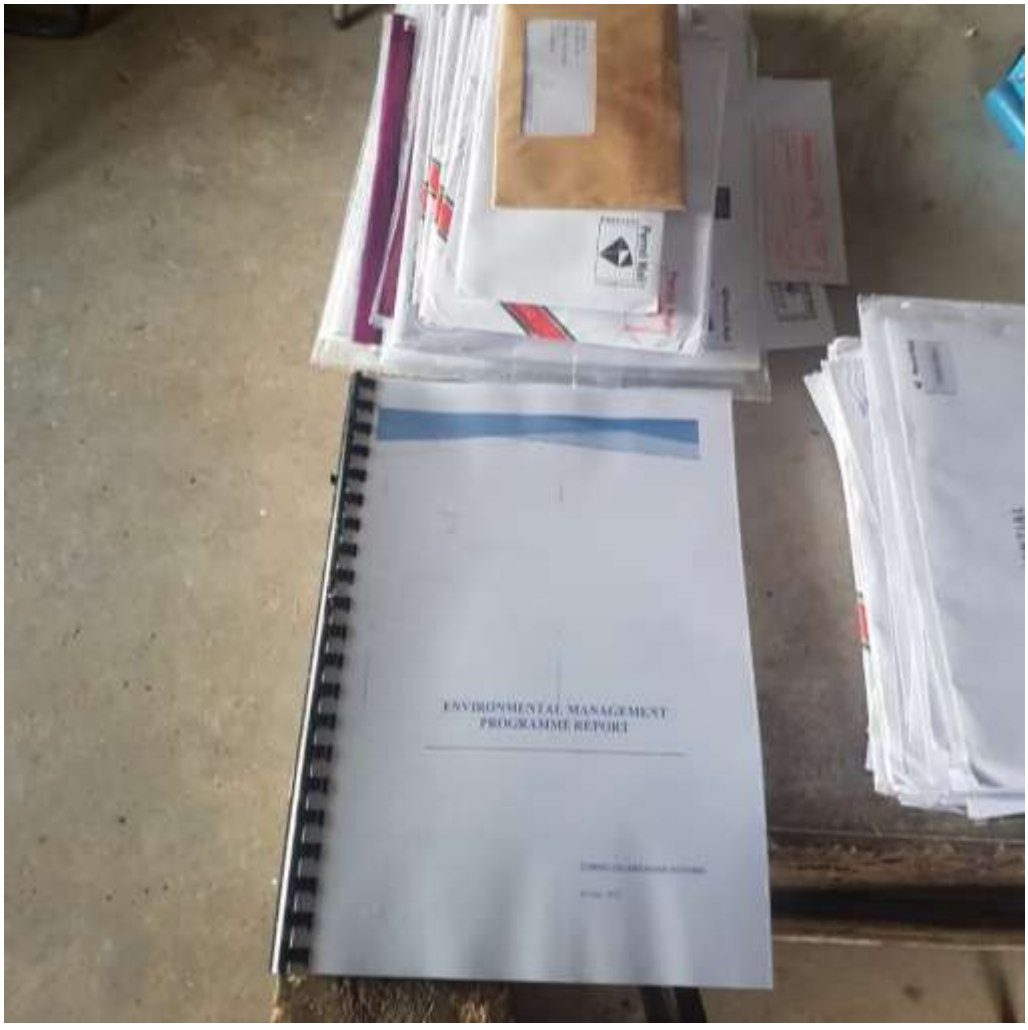
Farm gate entrance to the study area

Local municipal building entrance gate at Thaba Patchoa



Draft placed at the Municipal Offices at Tweespruit

Placed at the Library at Tweespruit

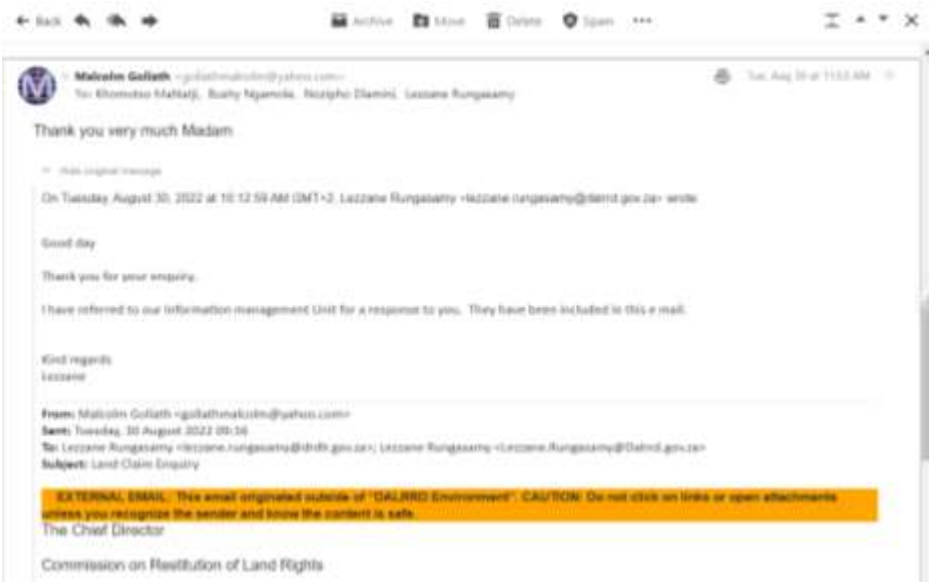


Placed at the Municipal Offices Thaba Pachoa

PUBLIC MEETING
A Public meeting is scheduled for 12:00 on 12 August 2022.Minutes and attendance register will be kept and include in Final BAR as **APPENDIX C.**

TELEPHONIC CONVERSATIONS
Telephonic conversations were held as communication medium.

Email CORRESPONDENCE
Emails as a consultation medium will be used where such details are known and preferred to by the participant in the process. **APPENDIX D**


Thank you very much Madam

Good day

Thank you for your enquiry.

I have referred to our Information management Unit for a response to you. They have been included in this e mail.

Kind regards
Lezzane

The Chief Director

Commission on Restitution of Land Rights

Registered Interested and Affected Parties as at 9th August 2022.


Mr Mokhali,

I am sending you the draft BAR to which you can make comments or give input. This will be the discussion in the public meeting focusing only on the impact on the environment. The date of the meeting is the 12th August 2022 as per the notice board.

Public Meeting: Awimaweh Resort Hall, at Mynplaas 1120 farm, 12:00 on the 12th August 2022..

You can make your comments on the attached sheet. Kindly attach additional pages if so required

Thank you very much

Malcolm Goliath

Email to Mr. Lefa Mokali-Registered as an Interested and Affected party

ORGANS OF STATE

All stakeholders and I&AP's have been notified of the report's availability and to make presentations within 30 days of receipt. Hardcopies of the report have either been submitted by hand or by registered mail to affected organs of state and relevant authorities.

APPENDIX E

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Date Comments Received	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.
AFFECTED PARTIES					
Landowner/s	X				
A copy of the Draft BAR was forwarded to the landowner Mr C Bothma for comments. Telephonicand email communication done. The landowner is also the applicant.	X		No Issues raised on the proposed activity. The impacts explained to the farm owner	No Response required from EAP	N/A
Lawful occupier/s of the land					
Landowner is the occupier and applicant.	X		No Issues raised on the proposeda	No Response required from EAP	N/A

Landowners or lawful occupiers on adjacent properties			Telephonic conversations and emails where preferred. Registered letters as preferred medium.		
John Parr (Farm Belmont) represented by Barry Newton **barrynewts@gmail.com 0845883566**	**X**		Awaiting input		
Inkatha Makuk(Farm Gilboa) **0824069023**	**X**	20/09/2022	Consult on 20 September 2022. How were the notifications done? No objection to application.	Mr. Goliath explained the process as being considered as a Part A (application for environmental authorization) and Part B the Basic Assessment Report stage which is the current stage. The Draft BAR was placed at the local municipal office in Tweespruit and Thaba Pachoa. Notice boards was placed at the municipal offices both Tweespruit and Thaba Pachoa, the Tweespruit library and around the farm fences and entry gates.	
Willem (Farm Bethal) **0785392047**	**X**		Unable to locate or reach		
Dr, John vd Merwe represented by James Visser 0721114113	**X**		Consult on 20 September 2022. No objection to application. In support		
Municipality **The Municipal Manager** **Post Office Box 76** **Tweespruit** **9770** **Tel 051 9630061**	**X**		Registered letter will be forwarded. (Draft BAR)		

Competent Authority **DMRE** **BY SAMRAD**	**X**	20/09/2022	Screening report to be signed by compiler Locality map at a scale not smaller than 1:250 000 to be attached to the revised EA application. Undertaking under oath by EAP as partb of the EA application	Screening report signed by the compiler and uploaded on SAMRAD on 8 August 2022. Locality map at a scale not smaller than 1:250 000 to be attached to the revised EA application. Undertaking under oath to be manually submitted and uploaded on SAMRAD	This is during the Environmental Application phase. It will be addressed with an revised application
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA					
DWS **Private Bag X313** **Pretoria** **0001** **Tel 012 336 8387/7500/0800200200** Registered mail will be sent	**X**		Registered letter will be sent		
Communities					
Communities	**X**		Public Meeting		
Dept. Land Affairs					
Registered mail will be sent and Telephonic conversations done	**X**		Registered letter will be forwarded. (Draft BAR)		
Traditional Leaders					
No Traditional Leaders					
Dept. EnvironmentalAffairs **Private Bag X20801** **Bloemfontein** **9300** **Tel 051 4049600**	**X**		Registered letter will be forwarded. (Draft BAR)		
Other Competent Authorities affected					
Free State: Department Agriculture and Rural Development **Private Bag X01** **Glen** **Bloemfontein**	**X**		Registered letter will be forwarded. (Draft BAR)		

9360 **Tel 051 861 8509**					
Commission on Restitution and Land Rights **Chief Director L Naran** **P O Box 4376** **Bloemfontein** **9300** **051 403 0701** **LNaran@ruraldevelopment.gov.za**	**X**		Email would forward for the enquiry. See response received on		
SAHRA/SAHRIS **Through SAHRIS portal**	**X**		Application lodged on SAHRIS		
OTHER AFFECTED PARTIES		**X**	Mr. Lefa Mokali	lefamokhali103@gmail.com Cell: :0837555875/ 0718191762 Registered as Interested and Affected party	
INTERESTED PARTIES		**X**	Mr. Lefa Mokali		
PUBLIC MEETING FIRST SESSION		Community Member	At what stage is this application. Has it been approved?	It is now in the stage of compiling a Basic Assessment Report and EMPr with consultation with all interested and Affected parties. The application has not been approved yet, after completion of the whole process the Department Mineral Resources and Energy, Free State Region will make a final decision as the competent authority. Consultation with other authorities is currently undertake.	
		Community Member	Who will be employed on the mine? Is it people from Johannesburg?	The applicant undertook to employ people from the local community being Tweespruit and Thaba Pachoa. In the event where specialized skills would be required the applicant will first seek the broader local and district municipal area, then the province after which if the skills are not located might extend beyond the border of the province. It is not foreseen that it will go beyond the borders of the district municipality.	
		Community Member	Is there diamonds?	The area has previously been mined as the Karmel project and for diamonds. The geologhical stratum confirm the presence of diamonds.	
PUBLIC MEETING SECOND SESSION		Community Member	Explain the process for this application. How was the community and Public informed. Where can I find the Social and Labour Plan for this	Mr. Goliath explained the process as being considered as a Part A (application for environmental authorization) and Part B the Basic Assessment Report stage which is the	

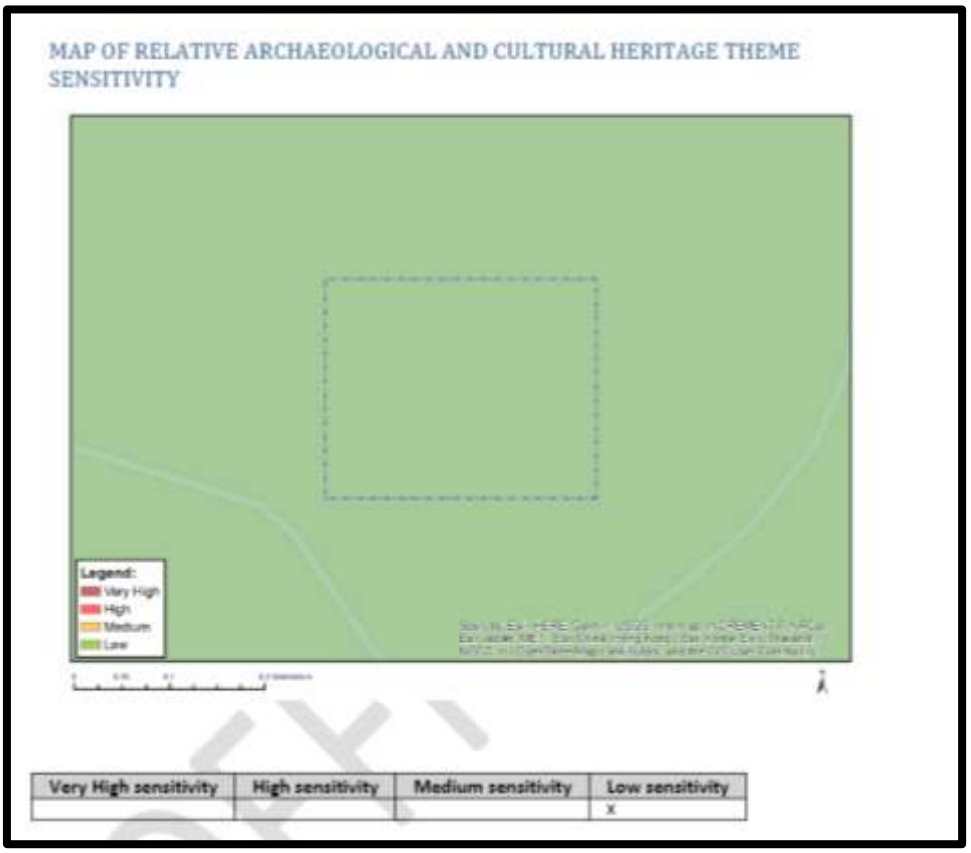
		application.	current stage. The Draft BAR was placed at the local municipal office in Tweespruit and Thaba Pachoa. Notice boards was placed at the municipal offices both Tweespruit and Thaba Pachoa, the Tweespruit library and around the farm fences and entry gates. This application does not carry a stand-alone SLP as in the case of a Mining Right but contains a section of community involvement which relates to monitoring how impacts to the environment is eliminated or mininmised within acceptable standards, the commitment to have the local community employed on the mine and then support of local BEE entrepreneurs for consumables.	
	Community Member	How will dust and noise be controlled?	This type of operation has the following sources where dust and noise are created. 1. Crushing and screening in the plant: Remedy-design of the plant particularly transfer points. Sprayers at the transfer points to combat dust pollution. 2. Roadway with the TMM's. Remedy-Speed control, wetting down, servicing of machines and fitting silencers. Speed limit: 3. Limit the working hours to daytime.	
	Community Member	By signing these documents does it mean that DMRE will see this a s approval from us on the project?	The document referred to for signature is the attendance register. It is to record that you were present at this public meeting. It in no way reflect that you gave approval. It is within you right to lodge any complaint or lodge appeal to the DMRE on this application. The final recourse that the interested and affected parties have when environmental authorization would be granted, would be to lodge an appeal to the Appeals directorate Department of Environment. An advert will be placed again to notify all parties and used would be made of a local newspaper. .	
	Community Member	I want to comment that we need to protect the environment for our future generations. It is all the items mention like vegetation, water, noise, dust, heritage and culture. work (socio-economic and	I fully agree and cannot more stress the importance.	

		promotions of women and disabled, BEE)		


REGISTERED LETTER
GEREGISTREERDE BRIEF
Post Office
(with an insurance option/met 'n versekeringsopsie)
Full tracking and tracing/Volledige volg en spoor
Addressed to/Geadresseer aan
Postcode
Postkode
Postage paid R
Service fee/Diensgeld R
Insurance/Versekering R
Total/Totaal R
Insured value of contents
Versekerde waarde van inhoud R
Enquiries/Navrae
Toll-free number
Tolvry nommer
0800 111 502
Initial of accepting officer
Date stamp
Datumstempel
REGISTERED LETTER
RC261663675ZA
CUSTOMER COPY
Plate Volg-en-Spoor-kliëntafskrif
Paraaf van aanneem-beampte
20 SEP 2022
8306
REGISTERED LETTER
RC261663794ZA
CUSTOMER COPY
Plate Volg-en-Spoor-kliëntafskrif
Paraaf van aanneem-beampte
20 SEP 2022
8306
REGISTERED LETTER
RC261663556ZA
Plate Volg-en-Spoor-kliëntafskrif
Paraaf van aanneem-beampte
20 SEP 2022
8306
REGISTERED LETTER
RC261663613ZA
20 SEP

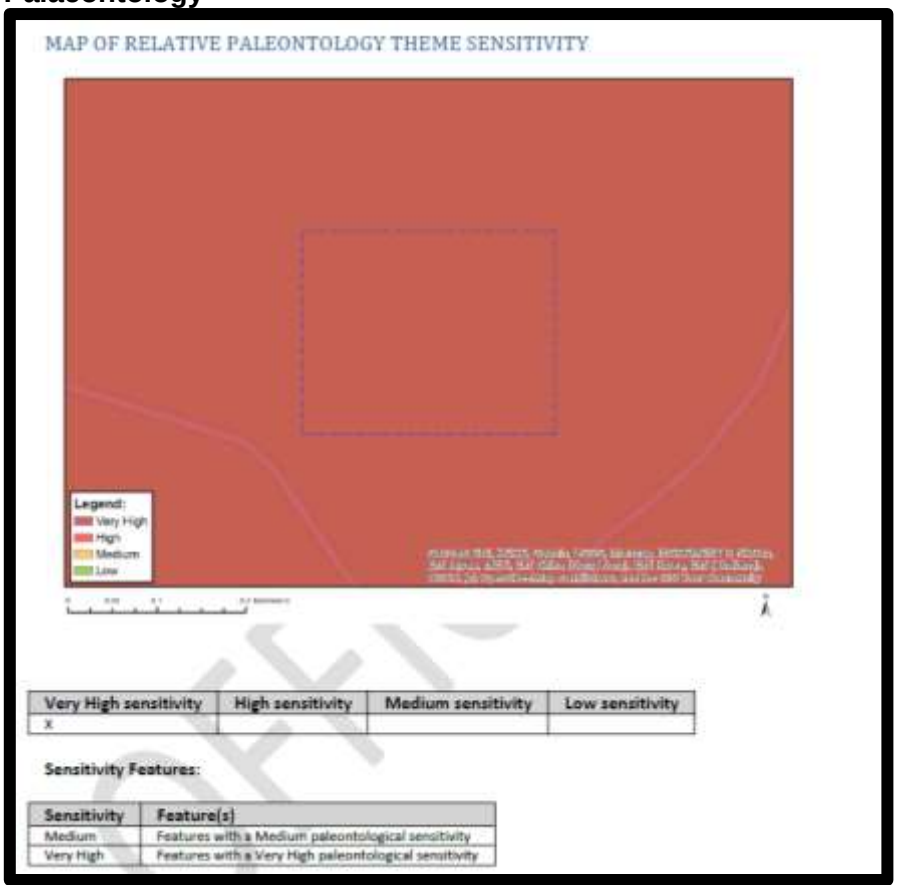
APPENDIX F

Source: Environment Screening Tool



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			x

Palaeontology



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
x			

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity