mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

ENVIRONMENTAL IMPACT 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).

NAME OF APPLICANT: **Ember Tetra Trading (Pty) Ltd**
TEL NO: **082 576 3659**
FAX NO: **-**
POSTAL ADDRESS: **P.O. Box 2898, Klerksdorp 2570**
PHYSICAL ADDRESS: **-**
FILE REFERENCE NUMBER SAMRAD: **NC30/5/1/1/2/12571 PR**

1. IMPORTANT NOTICE

In terms of the Mineral and Petroleum Resources Development Act (Act 28 of 2002 as amended), the Minister must grant a mining 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 advised that failure to submit the information required in the format provided in this template will be regarded as a failure to meet the requirements of the Regulation and will lead to the Environmental Authorisation being refused.

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

1. 2. OBJECTIVE OF THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The objective of the environmental impact assessment process is to, through a consultative process—

(a) determine the policy and legislative context within which the activity is located and document how the proposed activity complies with and responds to the policy and legislative context;

(b) describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;

(c) identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;

(d) determine the—

  (i) nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and

  (ii) degree to which these impacts—

    (aa) can be reversed;

    (bb) may cause irreplaceable loss of resources, and

    (cc) can be avoided, managed or mitigated;

(e) identify the most ideal location for the activity within the preferred site based on the lowest level of environmental sensitivity identified during the assessment;

(f) identify, assess, and rank the impacts the activity will impose on the preferred location through the life of the activity;

(g) identify suitable measures to manage, avoid or mitigate identified impacts; and

(h) identify residual risks that need to be managed and monitor

PART A

SCOPE OF ASSSSMENT AND ENVIRONMENTAL IMPACT ASSESSMENT REPORT

3. Contact Person and correspondence address

a) Details of

(i) **Details of the EAP**

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(a)(iii)

Name of the Practitioner: **DERA Environmental Consultants** - Mr. Daan Erasmus
Tel No.:018 468 5355
Fax No.:018 468 4015
E-mail address:daane@dera.co.za

(ii) **Expertise of the EAP**

(1) The qualifications of the EAP

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(a)(iv)

See next page for copy of qualification, **Figure 1.**

Figure 1 – Copy of Qualification

TECHNIKON PRETORIA

BACCALAUREUS TECHNOLOGIAE

LANDBOU: VOORLIGTING **AGRICULTURE: EXTENSION**

Toegeken aan Awarded to

DANIEL ELARDUS ERASMUS

9100l437 **1970-09-07**

met ingang van with effect from

1997-01-01

Registrateur (Akademies)
Registrar (Academic)

Rektor/Rector

No. **97/206**

TECHNIKON PRETORIA

TECHNIKON PRETORIA

NASIONALE NATIONAL DIPLOMA

LANDBOU: HULPBRONBENUTTING AGRICULTURE: RESOURCE UTILIZATION

Toegeken aan Awarded to

DANIËL ELARDUS ERASMUS

91004437 7009075033088

met ingang van with effect from

1994-01-01

Die volgende is voltooi The following were completed

Landbou-ekonomie I, II en III	Agricultural Economics I, II and III
Voorligtingsmetodiek I en II	Extension Method I and II
Akkerbou I, II en III	Field Husbandry I, II and III
Weidingkunde A	Pasture Science A
Bodembeplanning I en II	Land Use Planning I and II
Bodembewaring I	Soil Conservation I
Grondkunde I en II	Soil Science I and II
*Meganisasie	Mechanisation*
Fisiese Wetenskap	Physical Science
Melkproduksietegnologie	Milk Production Technology
Vleisbeesproduksietegnologie	Beefer Production Technology
Kleinveeproduksietegnologie	Small Stock Production Technology
Grondklassifikasie III	Soil Classification III

****

Minimum Opleidingstydperk: 3 Jaar
Minimum Training Period : 3 Years

SERTEC
Uitvoerende Direkteur/
Executive Director

Nr /No. ND1117/94

TECHNIKON
Rektor/Rector

(2) Summary of the EAP's past experience.

See **Figure 2** below Curriculum Vitae of D. E. Erasmus.

Figure 2 – Copy of Curriculum Vitae

DAAN ERASMUS

ENVIRONMENTAL PRACTITIONER

CONTACTS

daane@dera.co.za

+27 82 895 3516

Klerksdorp, North-west Province, South Africa

SKILLS

Report writing
Conduct auditing
Bilingual (English/Afrikaans)
Computer Proficient
Report generation and analysis
Verbal and written communication
Computer Literate
Project Management
Results-orientated
Conduct risk assessments

ABOUT ME

Environmental Practitioner with 29 years' experience in Agricultural Science, and Mining- and Environmental Management.
Began own company – DERA Environmental Consultants (Pty) Ltd 2003.
Main scope of business: Compiling and submission of mining related applications; manage and compile legal environmental documents.
Furthermore doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.
Assist legal companies in determining environmental damage.
Do risk assessment and applications for closure certificates.
Give guidance in rehabilitation practices.
Compile EMPR/EIA for Mining Rights and compilation of EMPlan's for Prospecting and Mining Right applications.
Compile BAR & EMPR reports in support of application of Chicken Broilers and – facilities, Feed lots, Fuel Storage, Ploughing of virgin soil and associated infrastructure for Environmental Authorizations and many more based on experience from management of the natural resources and the mitigation of impacts.

WORK EXPERIENCE

JAN 1989 – SEPT 1990
MILITARY SERVICE
National Defence Force

Officers Course: II Lieutenant

JAN 1991 – FEB 2003
CHIEF RESOURCE CONSERVATION INSPECTOR
National Department of Agriculture

Administration of Act 43 of 1983, Agricultural Resource Conservation Act in North West Province. The main activities were veld inspections in order to monitor correct utilization of natural resources and where necessary take corrective steps.
Other activities included discussions and lectures at farmers union meetings;
municipalities and other institutions in order to promulgate the Act.
Management of personnel and personnel related matters;
management of budget of regional office in Potchefstroom;
management and control of declared weeds and invader species.
Evaluation of EMPr's and EIA's and monitoring mine rehabilitation and environmental management out of agricultural point of view
Audit and compliance inspections of mining operations.

Page 1

WORK EXPERIENCE (Continues)

MAR 2003 – PRESENT

ENVIRONMENTAL PRACTITIONER
DERA Environmental Consultants

Compiling and submission of mining related applications; manage and compile legal environmental documents.
Furthermore doing monitoring work to evaluated compliance to environmental legislation; evaluating outstanding rehabilitation liabilities for mining companies.
Assist legal companies in determining environmental damage.
Do risk assessment and applications for closure certificates.
Give guidance in rehabilitation practices.
Compile EMPR/EIA for Mining Rights and compilation of EMPlan's for Prospecting and Mining Right applications.
Compile BAR & EMPr reports in support of application of Chicken Broilers and –facilities, Feed lots, Fuel Storage, Ploughing of virgin soil and associated infrastructure for Environmental Authorizations and many more based on experience from management of the natural resources and the mitigation of impacts.

EDUCATION

1988

HIGH SCHOOL DIPLOMA– with Full Exemption
Wolmaransstad High School, North West, SA

English	Afrikaans
Mathematics	Science
Geography	Accounting

1994

NATIONAL DIPLOMA: AGRICULTURE: RESOURCE
Pretoria Technikon (Tshwane University of Technology) – Pretoria, Tshwane

Agricultural Economics I, II and III	
Extension Method I, II and III	Field Husbandry I, II and III
Pasture Science A	Land Use Planning I and II
Soil Conservation I	Soil Science I and II
Mechanization	Physical Science
Milk Production Technology	Beef Production Technology
Small Stock Production Technology	
Soil Classification III	Computer Application I

1996

BACCALAUREUS TECHNOLOGIAE: AGRICULTURAL EXTENTION
Pretoria Technikon (Tshwane University of Technology) – Pretoria, Tshwane

Agricultural Communication I	Agricultural Extension IV
Crop Production IV	Research Methodology

EDUCATION - continues

1999 MASTERS DEGREE IN SUSTAINABLE AGRICULTURE - uncompleted
Orange Free State University, Bloemfontein, SA

Conservation of agricultural resources and the Environment
Soil-, climate and water use and soil and water Management
Plant and energy utilization and management
Economics of sustainability and development
Scrip – project proposal
Sustainable plant production systems
Farm management for sustainable agriculture
Strategic management, marketing and planning
Communication and technology transfer
Final dissertation - uncompleted

EIA- EXPERIENCE

The following list of EIA's was just some that was done by me:

- Compliance Creators [Goedgevonden] – was done as part of a Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Diamsure [Palmietfontein] - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Brenda Gagiano [Katdoornplaats] - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- J & K Steyn Trust [Klipkuil] - was done as part of Prospecting Right Application with Bulk Sampling, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- Pilansberg Tented Facility [Pilansberg] - was done as part of an Environmental Authorization for a listed activity for new tented camp, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of application process.
- FMS Trust [Saamgevoeg] - was done as part of an Environmental Authorization for a listed activity, for the construction of Chicken Broilers, my role entailed: site visit, impact assessment and evaluation and compilation of report and handling of

SHORT COURSES

Computer training Dbase IV
Seminar in public speaking
Veld assessment course
Resource Identification and utilization course
ArcView GIS course
Persuasion skills
Wetlands identification
Rehabilitation of Wetlands
Management skills
Agricultural law course

Page 3

b) Location of the overall Activity

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(c)(i),(ii)

(i) 21 digit Surveyor General Code for each farm portion	C02800000000046900013
(ii) Farm Name:	**Vaalhoek 469** ✓ Portion 13
(iii) Coordinates of the application area	Co-ordinates List WG 27°

NAME	LAT	LONG
A	-28.713522	20.722642
B	-28.722282	20.753769
C	-28.740142	20.759894
D	-28.741397	20.760607
E	-28.750111	20.760812
F	-28.751484	20.763742
G	-28.751788	20.764069
H	-28.751725	20.766386
J	-28.753257	20.767228
K	-28.752987	20.768321
L	-28.752804	20.765758
M	-28.752031	20.765246

CONTINUE		
N	-28.752216	20.764137
P	-28.749767	20.757798
Q	-28.748431	20.757186
R	-28.749051	20.756317
S	-28.748830	20.755893
T	-28.746762	20.750881
U	-28.746376	20.750526
V	-28.737803	20.733263
A	-28.713522	20.722642

Minerals applied for:	Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)
Application area (Ha)	741.3889 hectares
Magisterial district:	The application area fall within the district of *Gordonia*. It was formerly known as Koranaland. Upington is its principal town. It is the largest magisterial district in South Africa, with an area of 53 546 sq. km. It falls under the *Kai !Garib Local Municipality* and district municipality of *ZF Mgcawu District Municipality*, in the *Northern Cape Province* of South Africa. Source: https://en.wikipedia.org/wiki/Kakamas
Distance and direction from nearest town	The nearest town to the application area is Kakamas which is situated 22.3 km west of the application area at –28.737803, 20.733263.

c) Locality map

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(c)(i)(ii)

(i) & (ii)

The application area fall within the district of Gordonia. It was formerly known as Koranaland. Upington is its principal town. It is the largest magisterial district in South Africa, with an area of 53 546 sq. km. It falls under the Kai !Garib Local Municipality and district municipality of ZF Mgcawu District Municipality, in the Northern Cape Province of South Africa. Source: https://en.wikipedia.org/wiki/Kakamas. See **Appendix 1(a) - Locality Map** indication where the applied area are situated within the district of Kakamas, Northern Cape Province and **Appendix 1(b) – Infrastructure and Activity Map** indication applied area with attached coordinates of the area.

Appendix 1(a) – Locality Map

&

Appendix 1(b) – Infrastructure and Activity Map

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

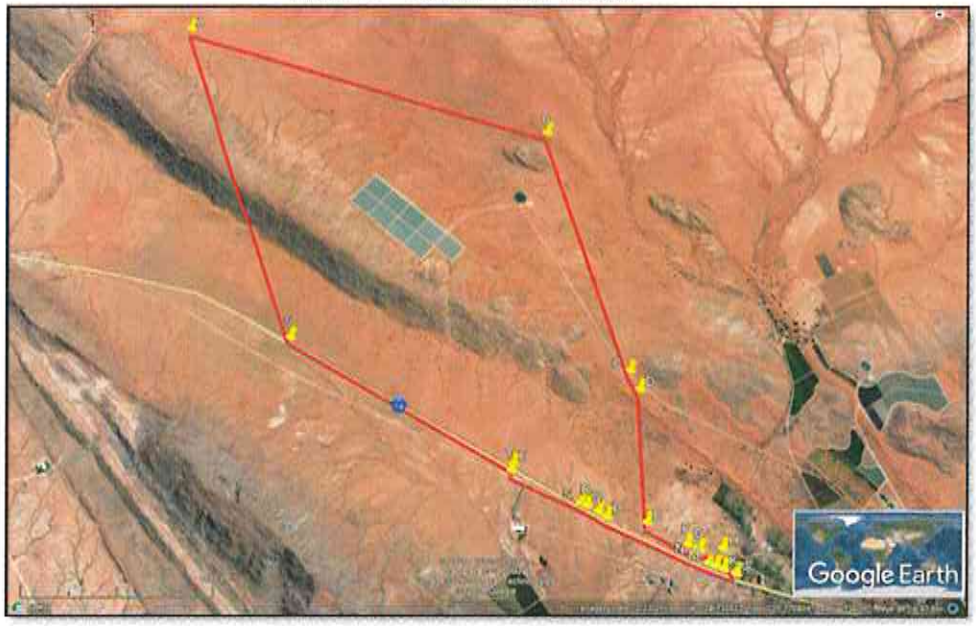
In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(d)(i)(ii)

The applicant applied for a Prospecting Right over: ***Portion 13 of the farm Vaalhoek 469***, the application area is situated over a rural area within the district of Kakamas, in the Northern Cape Province. The area is characterized as being mostly under agricultural practices such as natural vegetation (±715 ha) and cultivated field (vineyards) (±26 ha). There is an escarpment that runs from the east to west over the central part of the application area with an average elevation of ±850 m above sea level (mamsl). The southern part is at ±720 mamsl and the northern part at around 760 mamsl. The infrastructure that was identified over the application area are entrance road form the N14, farm roads, fence lines, a cement dam (which seem to have a radius of ±40 m) with associated pump station and shed and what looks to be a vineyard of ±26 ha under irrigation. If seems there are no other infrastructure over the application area. *This can be classified as high potential agricultural land*. The N14 runs along the southern boundary of the application area as well as a gravel dirt road alongside of it. The rest of the application area is under natural vegetation and there is a soil dam not far from the north, north western boundary of the application area. The natural area also looks to be susceptible to erosion during high rainfall events, see **Figure** 3 – Google Earth Images. See **Appendix 1(b)** for an indication of the proposed main listed activities and existing infrastructure. Access to the application area is gained via N4 between Kakamas and Keimoes.

The scope of the prospecting activities will entail: *Geological surveys* that is done by a geologist and is non-

invasive during *Phase 1*. After which the total area of interest is reduced to concentrate during *Phase 2* on *Drilling of boreholes* where a variety of drilling rigs are used at locations predetermined by the Geologist. After Phase 2 the geologist will assess the samples taken during phase 2 and will *Trenching* be done during *Phase 3* in order to determine the grade of the Manganese ore and other minerals that was found and if it is economical viable. The bulk samples that need to the tested will be taken off site for testing, no processing will be done on site.

Figure 3 – Google Earth Images



(i) Listed and specified activities

Appendix 1(b) – Infrastructure and Activity Map

The area is characterized as being in a rural area under natural vegetation and a small are (±26 ha) under irrigation. There is not a lot of infrastructure over the application area: only entrance road, fence lines, farm roads, there are a cement dam with associated pump house and shed and there is a soil dam not far from the north, north western boundary of the application area. There are further no structures or infrastructure over this property, see **Appendix 1(b)** for an indication of the proposed main listed activities and existing/proposed infrastructure and **Figure 3** – Google Earth Images for more detail of what the site looks like pre-prospecting. Access to the application area is gained via N4 between Kakamas and Keimoes. Only a small portion of the land will be impacted upon at any given time and land use on the rest of the area can proceed normally. The prospecting focus area will be clearly demarcated after Phase 2 is completed. The area applied for is over the entire portions but the main prospecting focus area will be on the grazing land area.

Table 1: Listed Activities

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(d)(i)

NAME OFACTIVITY	Aerial extent of the Activity (Ha or	LISTEDACTIVITY	APPLICABLE LISTING
Listing 1 – Activity 20: Any activity including the operation of that activity which requires a prospecting right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)= (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource[,] ; or [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in Listing Notice 2 applies.	741 ha	X	327
Listing 1 – Activity 27: The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	2 ha	X	327
Listing 2 – Activity 19: The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including— (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource [,] ; or (b) [including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002)] the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.	2 ha	X	325
Plant area where washings pans and stockpiles will be			
Stockpiles of topsoil next to the open excavation			
Roads within the prospecting area			
Ablution facilities, chemical and flush toilets			
Test pits been excavated and trenches for the bulk sampling			
Temporary office buildings			

(ii)Description of the associated structures and infrastructures

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(d)(ii)

The prospecting area was identified through aerial photographs. The extent of the prospecting area will be 741.3889 hectares. Information from Geological surveys will be used in order to determine where the drilling will take place. This will in turn help to determine the boundaries of the proposed prospecting area for more detailed surveying.

PHASE 1

Geological desktop studies and surveys will be done in order to try and identify the manganese ore body. Various geological maps and instruments will used to identify if manganese deposits and or other mineral deposits might be present on the application area. *12 Months needed for phase 1.*

PHASE 2

Using a variety of drilling rigs such as truck or trailer mounted, rods and hammers, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. Drilling is done in phases, over anomalous target areas, using reconnaissance lines or a grid of 250x250m depending on the level of confidence in the targets and the level of information required. The holes will be approximately 10 - 30m meters deep (average 20m) depending on local depth of the bedrock. It is envisaged that 30 boreholes will be drilled. The strata will be drilled using a RC drilling rig to recover drill chips or cuttings with various size hammers and rod strings, breaking the different formations. Compressed air is used to lift the broken material via an external cyclone and samples are collected at each 1.0m interval. These will be placed in marked plastic bags or plastic tubes, ready for geological logging and geochemical sampling to retrieve the necessary information. The ore body model will be generated in either Surpac or MicroMine software – further prospecting requirements and sampling will be based on this model. *24 Months are needed for phase 2.* Only if phase 2 confirms the availability of minerals the project will progress to phase 3.

PHASE 3

In order to determine if the grade of the Manganese is sellable the ore needs to be taken out and tested, by putting it through the screening/washing process – no processing will however be done on site. Trenching will be used to open the gravel in order to get a representative sample for testing. The trenches will be 10 x 60 x ± 5 m (deep). In one trench ± 3000m³ (4800 ton) ore will be exposed and tested with a washing plant at a rate of 15m³ (24 ton) an hour.

The total prospecting area is 741hectares, thus it is anticipated that a total of 30 000m³ (48 000ton) will be tested by making trenches on different locations over the whole prospecting area, where the possibility of minerals were identified with the drilling. Taken at an 8 hour working day, 5 days a week and 20 days a month, the applicant will be able to process 2400m³ a month. *The processing of 30 000m³ will take about 24 months for Phase 3 including the rehabilitation.*

A. DESCRIPTION OF PLANNED NON-INVASIVE ACTIVITIES:

Activities	Description of phases	Associated structures and infrastructures
Phase 1	Geological desktop studies and surveys in order to try and identify the gravel run. Various geological maps and instruments will used to identify if manganese deposits and or other listed minerals might be present on the application area. 12 Months needed for phase 1.	None

B. DESCRIPTION OF PLANNED INVASIVE ACTIVITIES:

TECHNICAL DETAIL REGARDING THE PROSPECTING METHODS

Table 2: Description of Activities to be followed

Activities	Description of phases	Associated structures and infrastructures
Phase 2	Drilling of boreholes: Using a variety of drilling rigs such as truck or trailer mounted, rods and hammers, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. Drilling is done in phases, over anomalous target areas where maps of Phase 1 showed potential, using reconnaissance lines or a grid of 250x250m depending on the level of confidence in the targets and the level of information required. The holes will be approximately 10 - 30m meters deep depending on local depth of the bedrock. It is envisaged that 30 boreholes will be drilled.	No infrastructure only moveable drilling rig.
Phase 3	In order to determine if the grade of the Manganese is sellable the ore needs to be taken out and tested, by putting it through the washing process. Trenching will be used to open the gravel in order to get a representative sample for testing. The trenches will be 10 x 60 x ± 5 m (deep). In one trench ± 3000m³ (4800 ton) ore will be exposed and processed through a screening plant at a rate of 15m³ (24 ton) an hour. The total prospecting area is 741 hectares, thus it is anticipated that a total of 30 000m³ (48 000ton) will be tested by making trenches on different locations over the whole prospecting area, where the possibility of diamond bearing gravel were identified with the test pits. Taken at an 8 hour working day, 5 days a week and 20 days a month, the applicant will be able to process 2400m³ a month. The processing of 30 000m³ will take about 24 months for Phase 3 including the rehabilitation.	The topsoil and grass will be cleaned on the area of 10 m x 60 m x ±5 m where the trenches will be excavated. After evaluation of the ore the trenches will be closed. Rehabilitation of the trenches back to original land capability/ use with topsoil and proper leveling.

Table 3: Technical data detailing the prospecting method

Phase	Activity	Skill(s) required	Timeframe	Outcome	Time frame for outcome	What technical expert will sign off on the outcome?
1	Geological surveys	Geologist	12	Maps	From month 1 – 12	Geologist
2	Drilling of boreholes	Drilling operator & Geologist/Manager	24	Areas where manganese ore and other minerals are found will be identified.	From month 13 - 36	Experienced applicant
3	Bulk Sampling	Excavator operator; Frond end loader operator; Washing pan operators & Manager	24	Manganese found will be tested in order to confirm the grade.	From month 37 - 60	Experienced manager and applicant.

e) Policy and Legislative Context

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)(e)

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLY WITH AND RESPOND TO THE POLICY AND LEGISLATIVE CONTEXT
National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) 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 has been triggered by applications in terms of the Minerals and Petroleum Resources Development Act, 2002 (As mentioned).	Activity 20, listing 1 Activity 19, Listing 2, Activity 27, Listing 1	Prospecting Right application submitted and EA application with DMR
National Environmental Management Act, 1998 (Act 107 of 1998): Environmental Impact Assessment Regulations, 2014 (G38282 – R982-985) EA Authorization and EIA/EMP. Submit documents that will describe the impacts and sustainable mitigation thereof. Compliance to Act and Regulations during course of activities. Show impacts and mitigation thereof.	Regulation 21	Scoping Report in process following by EIA/EMP
National Water Act, 1998 (Act 36 of 1998) Application for Water abstraction for mining use	Section 21 (a)	Application for water use license with DWS, will follow.
Conservation of Agricultural Resources Act No 43 of 1983 Compliance to Act and Regulations during course of activities. Stabilization of soil after rehab to be sustainable with no erosion. Eradication of declared weeds	Section 29	Regulation will be applicable during construction and operational phases of mining.
National Heritages Resources Act, 1999 (Act 25 of 1999) Compliance to Act and Regulations during course of activities. Ensure that no graves or heritage site will be disturbed.	Section 36	SAHRA was notified process will be followed.

f) Need and desirability of the proposed activities.

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)(f)

The applicant believes that the applied area has prospects for: *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* as applied for. The desirability of this project can be motivated as the application area is not within or nearby a sensitive environmental area (as long as a buffer zone of 50 m is kept around the ±26 ha vineyard) and the impact that will be caused by the activity can be properly mitigated and rehabilitated. The specific activities as listed will be on this 741.3889 ha application area specific according to the sketch plan. According to NEMA's Screening Tool/Report the areas that were identified as being very high sensitive area are the *Aquatic Biodiversity* and *Terrestrial Biodiversity theme*, the only source that will fall under aquatic site is the natural soil dam that is situated near the north, north-western part of the application area. There are further no other natural rivers/streams on or over the application area. The bigger area is classified as being a critical biodiversity area with regards to terrestrial biodiversity. The possible employee positions that could emerge could also be a great opportunity for revenue generation in this rural area. The locality of the activities is over the entire farm portions. The specific activities as listed will be over the whole areas of the application area. Where the potential of minerals are found with the geological surveys of phase 1, drilling during phase 2 and followed by bulk sampling of phase 3 and washing/sampling will take place. The duration of the activities will be 5 years.

g) Motivation for the preferred development footprint within the approved site including a full description of the process followed to reach the proposed development footprint within the approved site

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1) [(h)]((g)

The application area shows potential for the applied minerals: *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)*, thus these specific areas need to be prospected. *Geological surveys* will be done by a geologist and is non-invasive during Phase 1. After which the total area of interest is reduced to concentrate during Phase 2 on *Drilling of boreholes* where a variety of drilling rigs are used at locations predetermined by the Geologist. After Phase 2 the geologist will assess the samples taken during phase 2 and will *Trenching* be done during Phase 3 in order to determine the grade of the Manganese ore and other minerals that was found and if it is economical viable. The area is characterized as being rural area under natural vegetation and a small area under irrigation. There are not a lot of infrastructure over the application area, farm roads, fence lines, a cement dam (which seem to have a radius of ±40 m) with associated pump station and shed and what looks to be a vineyard (±26 ha) under irrigation. If seems there are no other infrastructure over the application area. Access to the application area is gained via N4 between Kakamas and Keimoes; see **Figure 3** – Google Earth Images for more detail. Only a small portion of the land will be impacted upon at any given time and land use on the rest of the surrounding area can proceed normally. The area will be bulk sampled and rehabilitated. The prospecting focus area will be clearly demarcated. The area applied for is over the entire portions which. Prospecting activities will not be conducted over the cultivated agricultural land.

h) Full description of process followed to reach the proposed development footprint

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)

i. Details of the development footprint alternatives considered.

Since it is a rural area and the local grow and development in this area is very slowly. Prospecting operation like this contributes to local economic growth and work opportunities in such a rural area. As can be seen on **Figure 3**, the current land use is mainly natural vegetation. The option to explore the possibility for prospecting is an alternative land use. The applicant, ***Ember Tetra Trading (Pty) Ltd.*** are not interested in any other alternative land use over this land aside for the exploration of the said minerals, or any other activity, or method use other than prospecting in the conventional way, which is the most cost effective.

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

There are no alternative for the property as the application is for this area only. There will not be a specific location where prospecting will be done. The whole of the application area will be surveyed and drilled and only after phase 2 is completed will a prospecting focus area be determined. And the whole of the application area will systematically be prospected eventually. There are no alternative sites as the whole of the application area was identified as being favorable to bear *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)*.

(b) the type of activity to be undertaken

The type of activity is in line with the submitted Prospecting Work Programme (PWP). *Geological surveys* will be done by a geologist and is non-invasive during Phase 1. After which the total area of interest is reduced to concentrate during Phase 2 on *Drilling of boreholes* where a variety of drilling rigs are used at locations predetermined by the Geologist. After Phase 2 the geologist will assess the samples taken during phase 2 and will *Trenching* be made during Phase 3 in order to determine the grade of the Manganese ore and other minerals that was found and if it is economical viable. *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* prospecting (bulk sampling) normally use the opencast prospecting method in order to access the mineral where after it is tested – off site. There will however be no testing taking place on the site. As this is only prospecting operation it will be the basic opencast method with associated machinery.

(c) the design or layout of the activity

The layout of the activity will and can only be on the application area as per sketch plan as submitted with the application. And the whole of the application area will systematically be prospected eventually. There are no preferred sites as the whole of the application area was identified as being favorable to be tested by the drilling rig. This prospecting operation will also not be a static operation as the whole of the application area will be drilled on a grid basis in order to determine where the possible minerals are located. They will perhaps have a temporary office building and there will be a stockpile area from where the mineral that must be tested will be hauled off site. There will also be temporary chemical toilets on the site for ablution facilities. There will be *not services to machinery* done on site and in case of emergency it will be done over a PVC lining. This operation will be a basic small scale prospecting layout, with minimal temporary infrastructure and just the necessary equipment. See **Appendix 1(c)** for proposed site layout.

(d) the technology to be used in the activity

The technology used in the activity will be as described in the PWP and the best options will be determined by the applicant, which will be drilling and bulk sampling through trenching. Furthermore with regards to the drilling, there is not a lot of option as all drilling exploration is done by a drilling rig. Using a variety of drilling rigs such as truck or trailer mounted, rods and hammers, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. The technology used with regards to the testing of the *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* is putting it through a plant – off site. But since this is a prospecting operation the ore will be hauled to the nearest processing site off site. The will be no mineral testing taking place on site. Phase 2 will be drilling and this will use a drilling rig, there are not much alternatives for this activity, Phase 3 will be excavation of a representative bulk sample and this will be done by conventional opencast excavations.

(e) the operational aspects of the activity, and

The operational aspect is only the prospecting for *Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* on this specific area, making use of a drilling rig and bulk sampling through trenching. Operations will be done through systematically drilling of the whole application area. Doing concurrent rehabilitation, meaning that as soon as a drilling core is inspected it will be placed pack and the whole will be caped and topsoil will be replaced. Where trenches were made and tested was completed the excavation will be backfilling before the next excavation will be opened and the topsoil will be removed and spread over the closed up excavation, thus creating a rollover effect. The importance will be to prospect the whole of the area not leaving any patches, but rather test the reserve systematically so that proper concurrent rehabilitation can take place.

(f) the option of not implementing the activity

This option might only be possible if the applicant decide to abandon the project. If this application is not implemented the current landowners will just continue with existing agricultural activities which is grazing. Thus not exploiting the mineral reserve and somebody else can apply.

ii. Details of the Public Participation Process Followed

The process as described by NEMA for Environmental Authorization was followed. See **Table 6** below for the identification of Interested and Affected Parties to be consulted with. The landowner (Winsbeslis Vyf (Pty) Ltd.), neighbours and land users was consulted personally and through written letter that are given to them by hand. See affidavit from applicant in this regard attached in **Appendix 2**. A site notice was placed at the entrance to the application area, see **Appendix 2**. With this site notice all passers-by are requested to submit any written comments to be forwarded to the consultant (still awaiting response). A notice for the Scoping Report was published in the Namakwalander Newspaper of 25th September 2020 and again for the EIAr/EMPr also in the Namakwalander Newspaper of 27th August 2021 response is awaited. See proof of consultation already done under **Appendix 2**. The Public Participation process is still on-going and the documents will be updated as more feedback is received back. The Scoping Report will be send to all relevant State Departments for evaluation. No comments were received.

Appendix 2 – Proof of consultation.

iii Summary of issues raised by I & AP's

Table 6: Summary of I & AP's consultation

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 sent and/or Comments Received	Issues raised	EAP's response to the applicant
AFFECTED PARTIES				
Landowner/s	X			
Winsbeslis Vyf (Pty) Ltd.		22 Sep 2020	Consultation letter was delivered by hand to the landowner. The landowner said that his attorney will contact us regarding the consultation. See Affidavit by applicant regarding the consultation with the landowner.	
Lawful occupier/s of the land	X			
Landowners or lawful occupiers on adjacent properties	X			
(Neighbour)		22 Sep 2020	Consultation letter delivered to neighbour, awaiting response	
Municipal councilor				
Municipality	X			
Kai!Garib Local Municipality\ Ms. G. Cloete Private Bag X6, Kakamas, 8870 Tel: 054 461 6400 Fax: 054461 6401		20 May 2020 23 Sep 2020	Consultation letter sent via fax	No response received
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.				
Eskom				
Communities				
Dept. Land Affairs	X			
Ms. Ruwayda Baulackey Tel: 053 807 5700; E-mail: baulackey@drdlr.gov.za		20 May 2020 23 Sep 2020	Request for verification of land claims sent to Ms Baulackey	
Traditional Leaders				
N/A				
Dept. Agriculture, Land Reform and Rural Development	X			
Thembisile Mabuza 02 Harrison Street, De Beers, Kimberley, 8301 Tel: 053 807 2612 /2600 Cell: 064 8690 976		24 July 2021	EMP/EIA sent via Courier Guy for comments	
Dept. Water and Sanitation	X			
Chief Director: Northern Cape Mr. Abe Abrahams 28 Central Road, Beaconsfield, Kimberley, 8300 Tel: 053-830 8800; E-mail: AbrahamsA@dws.gov.za		24 July 2021	EMP/EIA sent via Courier Guy for comments	
Other Competent Authorities				

OTHER AFFECTED PARTIES				
INTERESTED PARTIES				

Notice published in the Namakwalander Newspaper of 27th August for the EMP/EIA.

iv) The Environmental attributes associated with the development footprint alternatives focusing on the geographical, physical, biological social economic, heritage and cultural aspects

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(iv)

(1) Baseline Environment

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

Description of the baseline environment: The purpose of this section is to provide information on the environment in which the proposed prospecting activities will take place, with a view to identify sensitive issues/areas, which need to be considered when conducting the impact assessment. The application area is over: ***Portion 13 of the farm Vaalhoek 469***. This area consists of 4% cultivated fields (vineyard) and 96 % natural vegetation. There is an escarpment that runs from east to west over the central part of the application area with an average elevation of ±850 m above sea level (mamsl). The southern part is at ±720 mamsl and the northern part at around 760 mamsl. Most of the application area is under natural vegetation and there is a soil dam not far from the north, north western boundary of the application area. The natural area also looks to be susceptible to erosion during high rainfall events.

Magisterial District: The application area fall within the district of *Gordonia*. It was formerly known as Koranaland. Upington is its principal town. It is the largest magisterial district in South Africa, with an area of 53 546 sq. km. It falls under the *Kai !Garib Local Municipality* and district municipality of *ZF Mgcawu District Municipality*, in the *Northern Cape Province* of South Africa. Source: https://en.wikipedia.org/wiki/Kakamas.

Direction from neighbouring town: The nearest town to the application area is Kakamas which is situated 22.3 km west of the application area at -28.737803, 20.733263.

Longitude (approximate center of prospecting site): 20.744584°E
Latitude (approximate center of prospecting site): -28.730956°S

Existing Surface Infrastructure: The area is characterized as being rural area under natural vegetation (±715 ha) and a small area under irrigation (±26 ha). There are not a lot of infrastructure over the application area: farm roads, fence lines, a cement dam (which seem to have a radius of ±40 m) with associated pump station and shed and what looks to be a vineyard (±26 ha) under irrigation. It seems there are no other infrastructure over the application area. Access to the application area is gained via N4 between Kakamas and Keimoes; see **Figure 3** – Google Earth Images for more detail. Only a small portion of the land will be impacted upon at any given time and land use on the rest of the surrounding area can proceed normally. The area will be bulk sampled trough trenching and rehabilitated. The prospecting focus area will be clearly demarcated. The area applied for is over the entire portions. Prospecting activities will *not be conducted over the cultivated agricultural land*.

Distribution: NKb 1- Northern Cape Province: Hardeveld along the Orange River from Onseepkans in the west, including the canyon below the Augrabies Falls and parts of Riemvasmaak and adjacent areas to Keimoes resuming from the Boegoeberg to around Prieska in the east. A series of inselbergs and koppies occurring between Keimoes and around Kakamas, and the ridge running west of Groblershoop from Karos in the north to around Marydale in the south. The unit also occurs in neighbouring Namibia. Most of the area varies from 400-1 200 m in altitude.
NKb 5 - Northern Cape Province: Typically forming belts alternating with belts of Gordonia Duneveld on plains north-west of Upington through Lutzputs and Noenieput to the Rietfontein/Mier area in the north. Other patches occur around Kakamas and north of Groblershoop. The unit is also found in the neighbouring Namibia. Altitude varies mostly from 700-1 100 mm.

Climate: NKb 1- MAP ranges from about 70 mm in the west to 240 mm in the east. Mean maximum and minimum monthly temperatures for Kakamas are 41.3°C and -2°C for January and July respectively. Corresponding values for Prieska (near the eastern extremity) are 39.7°C and -4.1°C. Frost incidence varies from less than 10 days of frost per annum in the west to around 30 days in the east.

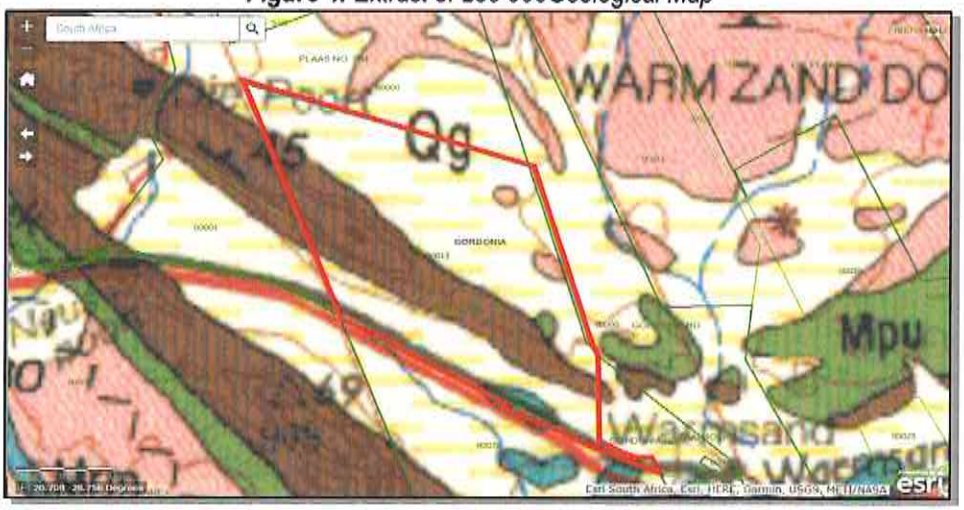
NKb 5 - MAP ranges from about 100-200 mm and most rain falls in late summer and early autumn. Winters are particularly dry, with lowest winter relative humidity compared to other Nama-Karoo types. Mean maximum and minimum monthly temperatures in Upington are 39.5°C and -4.2°C for January and July, respectively. Solar radiation is high and in winter is higher than in any other vegetation type of the Nama-Karoo.

Geology & Soil: NKb 1 - The region has a complicate geology: banded iron formation and amphibolites of the Asbestos Hills Subgroup are Vaalian and the carbonates and cherts of the Campbell Group are of the same Era. Metamorphic rocks of the Mokolian Erathem include quartzites and gneisses of the Korannaland Supergroup as well as the Riemvasmaak gneiss. Metamorphosed clastic sediments of the Uitdraai Formation are also Mokolian. The remaining half of the area is composed of many other stratigraphies, metamorphosed sediments and outcrops of the ultrametamorphic rocks of the Namaqualand Metamorphic Complex. The soils are shallow and skeletal (dominant soil forms are Mispah and Glenrosa), typical mainly of Ib and Ic land types, and to a lesser extent also of Fb land type.

NKb 5 - Cenozoic Kalahari Group sands and small patches also on calcrete outcrops and screes on scarps of intermittent rivers (mekgacha). In places Dwyka Group tillites outcrop. The soils are deep (>300 mm), red-yellow, apedal, freely drained, with a high base status, typical of Ae land type.

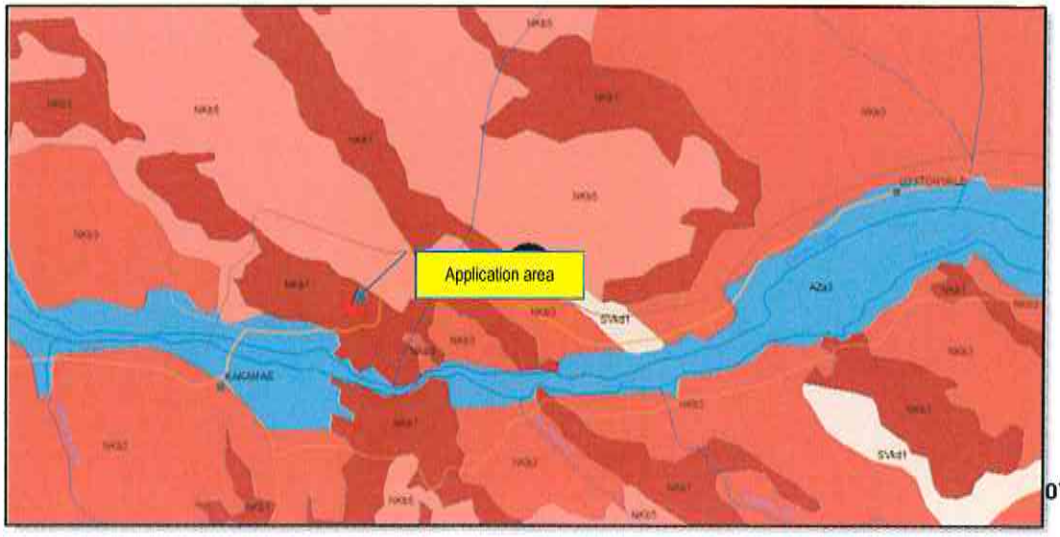
The area north of the escarpment is classified as being: Red and yellow well drained sandy soils with high base status. And the area south of the koppie is classified as being: Rock with limited soils, freely drained, structure less soils. See **Figure 4** for extract of 1:250 000geological map.

Figure 4: *Extract of 250 000Geological Map*



Vegetation [Flora] and Landscape Features: According to VEGMAP (2006) the application area falls under Bushmanland & West Griqualand vegetation Unit, over two vegetation units namely (NKb 1) Lower Gariep Broken Veld and (NKb 5) Kalahari Karroid Shrubland, see **Figure 5** below. VT 32 Orange River Broken Veld (70%) (Acocks 1953). LR 51 Orange River Nama Karoo (95%) (Low & Rebelo 1996) & VT 16 Kalahari Thornveld and Shrub Bushveld (60%) (Acocks 1953). LR 29 Karroid Kalahari Bushveld (61%) (Low & Rebelo 1996).

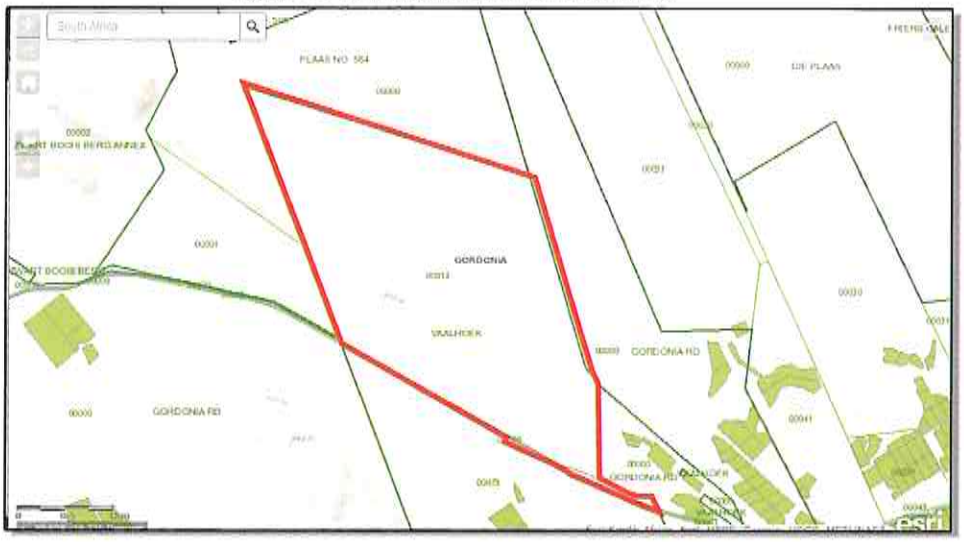
Figure 5: *The VEGMAP classification: (NKb1) Kimberley Thornveld & & (NKb5) Kalahari Karroid Shrubland*



NKb 1- Hills and low mountains, slightly irregular plains but with some rugged terrain (e.g. downstream of the Augrabies Falls) with sparse vegetation dominated by shrubs and dwarf shrubs, with annuals conspicuous, especially in spring, and perennial grasses and herbs. Groups of widely scattered low trees such as *Aloe dichotoma* var. *dichotoma* and *Acacia mellifera* subsp. *detinens* occur on slopes of koppies and on sandy soils of foot slopes respectively.
NKb 5 - Low karroid shrubland on flat, gravel plains. Karoo-related elements (shrubs) meet here with northern floristic elements, indicating a transition to the Kalahari region and sandy soils.

According to the Department of Agriculture, Land Reform and Rural Development – Comprehensive Atlas the land capability of area over which this application area is falling area classified as being: Non-Arable and the mostly suited for sheep farming because of the nature of the natural environment. See **Figure 6** below for field boundaries and land cover.

Figure 6: *Field boundaries and land cover*



Furthermore according to the DEDACT (Department of Economic Development, Environment, Conservation and Tourism's) screening tool the application footprint of this application area are classified as per **Table 5** below. The areas that were identified as being very high sensitive area is the Aquatic Biodiversity and Terrestrial Biodiversity theme. The only source that will fall under aquatic site is the natural soil dam that is situated near the north, north-western part of the application area. There are further no other natural rivers/streams on or over the application area. The bigger area is classified as being a critical biodiversity area with regards to terrestrial biodiversity. See full report attached as **Appendix 3.**

Appendix 3: NEMA Screening Report

Table 5: DEDACT - Screening Report

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme				X
Animal Species Theme			X	
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme			X	
Civil Aviation Theme			X	
Plant Species Theme			X	
Defence Theme				X
Terrestrial Biodiversity Theme	X			

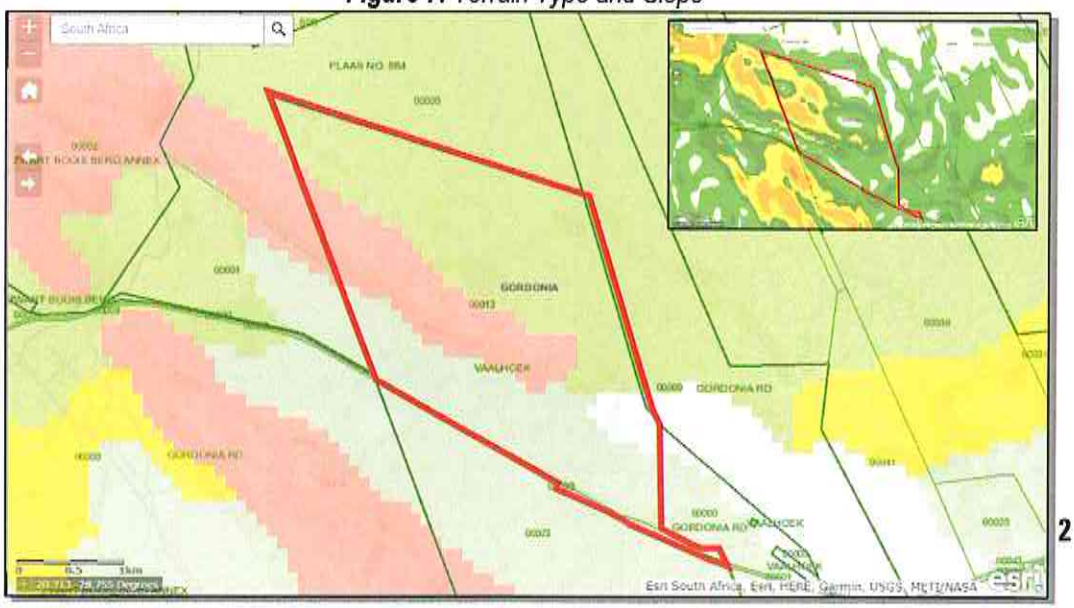
Important Taxa: NKb 1- ([W]Western or [E]Eastern part of this unit only) Succulent Trees: *Aloe dichotoma* var. *dichotoma*. Small Trees: *Acacia mellifera* subsp. *detinens* (d), *Commiphora gradlifrondosa*[W], *Ficus cordata*, *Pappea capensis*[W], *Rhus populifolia*[W], *Ziziphus mucronata* subsp. *mucronata*. Tall Shrubs: *Rhigozum trichotomum (d), Adenolobus garipensis*[W], *Antherothamnus pearsonii*[W], *Cadaba aphylla, Caesalpinia bracteata, Ehretia rigida* subsp. *rigida, Nymania capensis, Rhigozum obovatum*[E], *Rhus burchellii. Epiphytic Semiparasitic.* Shrub: *Tapinanthus oleifolius.* Succulent Shrubs: *Ceraria namaquensis, Cryptolepis deciduaW, Euphorbia avasmontana, E. gregaria*[W], *Kleinia longiflora, Lycium bosciifolium, Zygophyllum dregeanum.* Woody Succulent Climber: *Sarcostemma viminale.* Low Shrubs: *Blepharis mitrata (d), Aizoon schellenbergii, Aptosimum*

albomarginatum, A. lineare, A. marlothii, Barleria rigida, Berkheya spinosissima subsp. *namaensis, Dyerophytum africanum, Hermannia spinosa, H. vestita, Hibiscus elliottiae, Indigofera heterotricha, Limeum aethiopicum, Lophiocarpus polystachyus, Monechma spartioides, Phaeoptilum spinosum, Phyllanthus maderaspatensis, Polygala seminuda, Ptycholobium biflorum* subsp. *biflorum, Sericocoma avolans, Solanum capense, Stachys burchelliana, Talinum arnotii, Tetragonia arbuscula, Zygophyllum rigidum.* Semiparasitic Shrubs:*Thesium lineatum.* Graminoids*: Aristida adscensionis (d), Enneapogon desvauxii (d), E. scaber (d), Eragrostis nindensis (d), Stipagrostis obtusa (d), S. uniplumis (d), Aristida congesta, A. engleri, Cenchrus ciliaris, Digitaria eriantha, Enneapogon cenchroides, Eragrostis annulata, E. lehmanniana, E. porosa, Schmidtia kalahariensis, Setaria verticillata, Sporobolus fimbriatus*[E]*, Stipagrostis anomala, S. ciliata, Tragus berteronianus, Triraphis ramosissima*[W]*.* Herbs*: Forsskaolea candida (d), Acanthopsis hoffmannseggiana, Barleria lichtensteiniana, Chamaesyce glanduligera Chascanum garipense, Cleome angustifolia* subsp. *diandra, Codon royenii, Dicoma capensis, Garuleum schinzii*[E]*, Rogeria longiflora, Sesamum capense, Tribulus zeyheri, Trichodesma africanum.* Succulent Herbs*: Orbea lutea subsp. lutea, Stapelia flavopurpurea.* Endemic Taxon Succulent Shrub*: Ruschia pungens.* Conservation Least threatened. Target 21%. Statutorily conserved in Augrabies Falls National Park (4%). Only a very small part transformed. Erosion is low (58%), very low (27%) and moderate (14%). **References** Acocks (1953, 1988), Werger & Coetzee (1977), Bezuidenhout (1996), Zietsman & Bezuidenhout (1999).

NKb 5 - Small Trees*: Acacia mellifera* subsp. *detinens (d), Parkinsonia africana (d), Boscia foetida* subsp. *foetida.* Tall Shrub*: Rhigozum trichotomum (d).* Epiphytic Semiparasitic Shrub*: Tapinanthus oleifolius.* Low Shrubs*: Hermannia spinosa (d), Limeum aethiopicum (d), Phaeoptilum spinosum (d), Aizoon schellenbergii, Aptosimum albomarginatum, A. lineare, A. marlothii, A. spinescens, Barleria rigida, Hermannia modesta, Indigofera heterotricha, Leucosphaera bainesii, Monechma genistifolium* subsp. *genistifolium, Phyllanthus maderaspatensis, Polygala seminuda, Ptycholobium biflorum* subsp. *biflorum, Sericocoma avolans, Solanum capense, Tephrosia dregeana.* Herbs*: Dicoma capensis (d), Chamaesyce inaequilatera (d), Amaranthus praetermissus, Barleria lichtensteiniana, Chamaesyce glanduligera. Chascanum garipense, Cleome angustifolia* subsp. *diandra, Cucumis africanus, Geigeria ornativa, Hermannia abrotanoides, Indigastrum argyraeum, Indigofera alternans, I. auricoma, Kohautia cynanchica, Limeum argutecarinatum, Mollugo cerviana, Monsonia umbellata, Sesamum capense, Tribulus cristatus, T pterophorus, T terrestris.* Succulent Herbs*: Gisekia africana, G. pharnacioides, Trianthema parvifolia.* Graminoids*: Aristida adscensionis (d), Enneapogon desvauxii (d), E. scaber (d), Stipagrostis obtusa (d), Aristida congesta, Enneapogon cenchroides, Eragrostis annulata, E. homomalla, E. porosa, Schmidtia kalahariensis, Stipagrostis anomala, S. ciliata, S. hochstetteriana, S. uniplumis, Tragus berteronianus, T. racemosus.* Biogeographically Important Taxon *(Southwestern distribution limit)* Graminoid*: Dinebra retroflexa.* Conservation Least threatened. Target 21 %. Very little statutorily conserved in Augrabies Falls National Park. Although only a small area has been transformed many of the belts of this type were preferred routes for early roads, thus promoting the introduction of alien plants (about a quarter of the unit has scattered Prosopis species). Erosion is very low (94%). Remarks Vegetation of this mapping unit shows transitional features between the Kalahari proper (Savanna Biome) and the northern Nama-Karoo. **References** Leistner (1967), Leistner & Werger (1973), Werger & Leistner(1975), Werger (1978b, 1986), Werger et al. (1979), Bezuidenhout (1996), Werger & Coetzee (1977).

Topography: The prospecting area falls over four terrain types: The central to north and north-eastern area is plain with open low hills and ridges, central part where the escarp runs is hills or ridges, southern part is level plains with some relief and a small portion to the east is classified as level plains. The slope varies a lot over this area form ≤ 2% up to between 13-20 %. There is an escarpment that runs from east to west over the central part of the application area with an average elevation of ±850 m above sea level (mamsl). The southern part is at ±720 mamsl and the northern part at around 760 mamsl. Most of the application area is under natural vegetation and there is a soil dam not far from the north, north western boundary of the application area. The natural area also looks to be susceptible to erosion during high rainfall events.

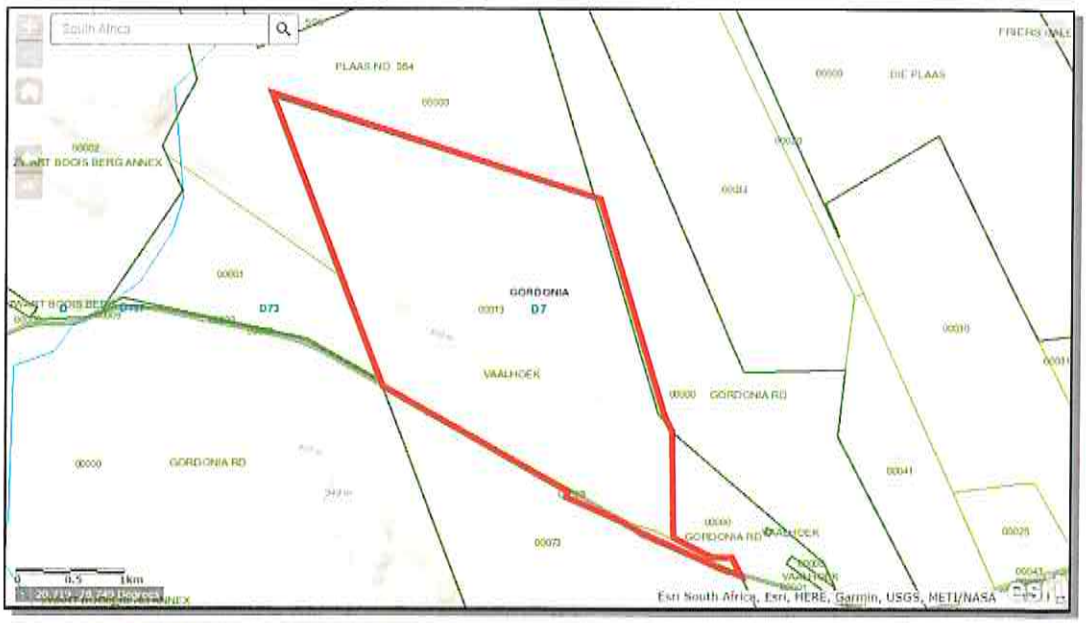
Figure 7: *Terrain Type and Slope*



Animal Life [Fauna]: Not many species were directly observed but the presence of nesting sites in the area is an indication that this area is an acceptable habitat for shelter and food for avian species. The natural animal life occurring over the application area includes but is not restricted to, small animals common in this area. List of mammals which are likely to occur over the project area were derived based on distribution record from the Animal Demography Unit (ADU) web portal: http://vmus.adu.org.za. Animals that are likely to occur here are: *Ictonyx striatus* (Striped Polecat), *Antidorcas marsupialis* (Springbok), *Oreotragus oreotragus* (Klipspringer), *Procavia capensis* (Cape Rock Hyrax), *Procavia capensis* (Cape Rock Hyrax), *Cynictis penicillata* (Yellow Mongoose), *Xerus inauris* (South African Ground Squirrel), *Chlorocebus pygerythrus pygerythrus* Vervet Monkey (subspecies *pygerythrus*) *(Cercopithecidae), Lepus saxatilis* (Scrub Hare), *Pronolagus rupestris* (Smith's Red Rock Hare), *Phacochoerus africanus* (Common Warthog) *(Suidae), Herpestes pulverulentus* (Cape Gray Mongoose).

Surface Water: This application area falls within the water management area of the: Lower Orange (14) and secondary catchment area D73 and tertiary drainage region D73F. See **Figure 8** for water management area. The only natural water source that is situated on the application area is the natural soil dam that is situated near the north, north-western part of the application area. There are further no other natural rivers/streams on or over the application area, there is also as cement dam near the cultivated fields; see **Figure 3** – Google Earth Images. According to NEMA's Screening Tool this areas (surface water flow area) that was identified as being very high sensitive area are the Aquatic Biodiversity and Terrestrial Biodiversity theme, is only this mentioned soil dam. The whole of this area and surrounding areas are classified as being critical biodiversity areas. If prospecting and rehabilitation is done in 'n well planned manner and rehabilitated, it is not foreseen that it will have a big impact on any surface water drainage lines.

Figure 8: *Water Management Area*



Ground Water: There is a borehole on the application area used for irrigation on the cultivated fields (vineyard) and domestic use by the farmworkers. Ember Tetra Trading (Pty) Ltd. will have to come to some agreement with the landowner with regards to water use and or drilling of a new borehole for this purpose and the necessary water conversions and/or licensing will have to be done. The water uses will be $2m^3$ a day for mainly dust suppression.

Air Quality: With reference to the Scheduled processes under the Atmospheric Pollution Act, 1965 (Act No. 45 of 1965): No scheduled process relates to any proposed prospecting activity on this land. The current source of air pollution in the area stems from vehicles travelling on the local gravel roads of the area, cultivation of agricultural fields. The source of air pollution on the landowner will be nuisance dust generated by the movement of prospecting vehicles; trenches will be made and excavating of ore which will be loaded onto dumper trucks and taken to the stockpiles for transportation to the processing plant. Processing is a wet process and will this not adversely affect air quality. The biggest impact will be caused by vehicle movement on the prospecting focus roads. Gas emissions from vehicles will be within legal limits. The landowner and

surrounding neighbours may from time to time be negatively impacted upon depending on the wind direction. It is however foreseen that the overall dust impact will be medium to low negative. The accumulative impact of dust generated by prospecting operations within the vicinity of the mine may increase the effect on the local area.

Noise: The movement of heavy vehicles during the operational and closure phase and the processing of the bulk sample will have a low impact on the noise levels. The prospecting and transporting of the gravel which is during normal office hours will blend in with the daily noise impact of cars travelling on the N14 tar road. These noise levels will be continuous and the operators will be issued with earplugs. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act and the influence on wild life.

Sites of Archaeological and Cultural Interest: No graveyard was identified on the application area with the site visit, but also within the envisaged bulk sample area.

Sensitive Landscapes: The only potential sensitive landscape is the ±26 ha cultivated field (vineyard). As the establishment of a vineyard is a high cost outset and long-term project this cannot be re-establish during a next season and need time to mature in order to produce a viable yield. It is recommended that a 50m buffer be kempt around it and where prospecting will not occur. According to NEMA's Screening Tool, Terrestrial Biodiversity theme was identified as being very high sensitive. The whole of this area and surrounding areas are classified as being critical biodiversity areas

Visual Aspects: The prospecting site will be clearly visible to the people living in the area and travelling on the N14 tar roads between the towns of Kakamas and Keimoes if it comes within visible distance of the N14. The negative visual impact associated with this prospecting operation will be the drilling rig, open trenches and processing area, as well as temporary prospecting site office. The visual impact of this prospecting activity cannot really by shielded as the overburden stockpiles will be visible on the prospecting area. The waste and topsoil dumps must be put as near as possible to the excavations and overburden and topsoil must be used for rehabilitation to establish a vegetation cover over the disturbed areas. It properly rehabilitated the prospected area will blend in with the surrounding landscape again after prospecting was completed.

Social: The proposed activity will employ 9 people, which will probably reside from the surrounding areas. Various social amenities are available close to the operation. These include schools, hospitals churches, recreation facilities as well as a Police Station at Kakamas, which is located approximately 22.3 km west of the operation.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(v)

The proposed project is anticipated to impact on a range of biophysical and socio-economic aspects of the environment. The main purpose of the EMP/EIA is to identify and evaluate the significance of these potential impacts and determine how they can be minimized or mitigated. It should be noted that a comprehensive Environmental Management Program (EMPr) will be developed and implemented to regulate and minimize the direct, indirect and cumulative impacts during the construction and operational phases. The potential environmental impacts identified during the Scoping Phase, which will be investigated further in the Impact Assessment Phase of the project are summarized in **Table 7** on the next page.

Table 7: Impact significance identification matrix for Vaalhoek 469

	PHASE	Components	ABIOTIC									BIOTIC			VISUAL	SOCIO-ECONOMIC		
		Impacts	Geology	Topography	Soil	Land capability	Land use	Surface water	Ground water	Air quality	Noise	Vegetation	Wildlife	Sensitive landscapes	Visual impact	Archaeological & cultural sites	Socio-economic	Affected parties
		Activity, Product or Service																
1	Construction	Demarcation of mine focuses area			L	M	L						M		M			
2		Drilling of drilling holes on grid system over the identified areas.	H															
3		Establishment (site preparation, vegetation clearance, topsoil removal and stockpiling) of proper access roads (upgrade existing road), site workshop & storage area (temporary containers), mineral processing plant conveyor, mobile screen, generator, ect.) Initial vegetation clearance, topsoil removal & stockpiling next to first opencast/pit/trench within the mine focus area.		M	H	H			M	H	H	H	H	L	M		L	M
4		Establishment of bunded diesel and oil/chemical storage facilities, chemical toilets.		M	M	H		M	M			M			M			
5		Provision of storage tanks for potable (drinking water) and process water (dust suppression).		H	H	H	H	L	M	M	H	H	H	M	L	L		
6		Provision of waste handling/disposal facilities (domestic & industrial waste bins.			L			L	L					L				
7		Fencing –off active prospecting site in as required in terms of the MHSA. Ensure access control (gate), ect.				M							M		M			H+
8	Operational	Vegetation clearance, topsoil removal & stockpiling net to opencast/pit/trench within the mine focus area (0.5 ha of surface area disturbed at any given time).		M	H	H	M	L		L		H	L		L		M	H
9		Mechanically excavating overburden with an excavator and stockpile separately from topsoil dump. Remove ore with excavator and stockpile on side of trench/pit to load onto trucks.	H	H+	H	H	H	L	M	L	L	H	L		L+		M	H
10		Transport with trucks to mineral processing plant for processing.			H			L	H	L	L	H			M+		M	H
11		Backfilling of trenches (as part of concurrent rehabilitation): the waste ore from the plant will be transported back by front-end-loaders towards all open pits for backfilling.	M	H	H	H	H	H	M	L	L						M	H
12		Final backfilling of all trenches/pits and loping of overburden dumps (excess material as the result of swell factor).	H+	H+	H+	H+	H+	H+	H+	L	L				L		H+	H±
13		Compaction of backfilled sites		H+	H+	H+	H+	H+	H+		L						H+	H+
14	Decommis	Replace and spread all topsoil evenly over backfilled sites			H+	H+	H+	H+	H+	H+	L	H+	H+		H+		H+	H+
15		Establishment of vegetation cover.			H+	H+	H+	H+	H+	H+		H+	H+		H+		H+	H+

vi) Methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks;

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(vi)

I. Introduction:

Table 8 describes and evaluates the effects of the different prospecting projects and the associated activities on the natural and social environments. The different environmental components, on which the project (can/may) have an impact, are:

1.	Geology	9.	Ground Water
2.	Topography	10.	Air Quality
3.	Soil	11.	Noise
4.	Land Capability	12.	Archaeological and Cultural sites
5.	Land Use	13.	Sensitive Landscapes
6.	Vegetation	14.	Visual Aspects
7.	Wildlife	15.	Socio-economic Structure
8.	Surface Water	16.	Interested and Affected Parties

MPACT ASSESSMENT

Before the impact assessment could be done the different project activities were identified:

ACTIVITIES:

1. Access Roads (Existing farm roads to be upgraded)
2. Temporary office, workshops, ablution facility, water tanks, diesel tanks and other temporary buildings
3. Prospecting equipment (conveyor, drum screen, washing pans, generator)
4. Stockpiles
5. Overburden dumps
6. Opencast trenches (as part of bulk sampling)

II. Environmental Impact Assessment Summary:

- **Environment likely to be affected by the prospecting operation. (See Appendix 1(a) for location)**

Environmental aspect	Affected		Not affected
	Negligible	Substantial	
1. GEOLOGY		X	
2. TOPOGRAPHY	X		
3. SOIL		X	
4. LAND CAPABILITY		X	
5. LAND USE	X		
6. VEGETATION		X	
7. WILDLIFE	X		
8. SURFACE WATER			X
9. GROUND WATER	X		
10. AIR QUALITY	X		
11. NOISE	X		
12. SENSITIVE LANDSCAPES			X
13. VISUAL ASPECTS	X		
14. SOCIO ECONOMICS	X		
15. INTERESTED & AFFECTED PARTIES	X		
16. ARCHAEOLOGICAL			X

- **Environment likely to be affected by the alternative land use**

Prospecting will be a new land use over this area. The site that is earmarked for prospecting represents ± 1 % of the total area applied for. And it is further not foreseen that prospecting activities would disturbed an area of not more than 0.5 ha at any given time. The rest of the terrain would continue to be used for agriculture purposes by the landowner.

- **Assessment of the impacts created by the prospecting activity**

Before any assessment can be made the following evaluation criteria need to be described:

*Explanation of **probability** of impact occurrence*

Probability of impact occurrence	Explanation of probability
Very low	<20% sure of particular fact or likelihood of impact occurring.
Low	20 to 39% sure of particular fact or likelihood of impact occurring.
Moderate	40 to 59% sure of particular fact or likelihood of impact occurring.
High	60 to 79% sure of particular fact or likelihood of impact occurring.
Very high	80 to 99% sure of particular fact or likelihood of impact occurring.
Definite	100% sure of particular fact or likelihood of impact occurring.

*Explanation of **extent** of impact*

Extend of impact	Explanation of extend
Site specific	Direct and indirect impacts limited to site of impact only.
Local	Direct and indirect impacts affecting environmental elements within the Kakamas area.
Regional	Direct and indirect impacts affecting environmental elements within Northern Cape Province.
National	Direct and indirect impacts affecting environmental elements on a national level.
Global	Direct and indirect impacts affecting environmental elements on a global level.

*Explanation of **duration** of impact*

Duration of impact	Explanation of duration
Very short	Less than 1 year
Short	1 to 5 years
Medium	6 to 12 years
Long	13 to 50 years
Very long	Longer than 50 years
Permanent	Permanent

*Explanation of impact **significance***

Impact significance	Explanation of significance
No impact	There would be no impact at all - not even a very low impact on the system or any of its parts.
Very low	Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.
Low	Impact would be of a low order and with little real effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts, alternative means for achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.
Moderate significance	Impact would be real but not substantial within the bounds of those which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In the case of positive impacts, other means of achieving these benefits would be about equal in time, cost and effort.
High significance	Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.
Very high significance	Of the highest order possible within the bounds of impacts which could occur. In the case of negative impacts, there would be no possible mitigation and/or remedial activity to offset the impact at the spatial or time scale for which it was predicted. In the case of positive impacts, there is no real alternative to achieving the benefit.

*Assessment and evaluation of potential impacts KEY - **EXAMPLE***

	IMPACTS (Nature of the impact)				CUMULATIVE IMPACTS
1. Environmental Component					
Actions, activities or processes, including any NEMA EIA Regulation listed activities					
See list of activities and associated environmental components that are being impacted on, as being spelled out in Table 1 (Impact Identification matrix for the Hartebeestpoort "B" operations).	**A.1**				
Extent	Site				
Duration	Permanent	**A.2**			
Probability	Definite				
Significance	High				
Phase responsible for the impact	Construction	Operation	Decommissioning	Closure	
			A.3		

Table 8: Describes and evaluates the effects of the different prospecting projects and the associated activities

ASPECT 1. GEOLOGY	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	The geology will be destroyed during the prospecting operation. During operation which will be for the next 5 years, the mineral resource *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* will be tested and extracted. Waste rock material/overburden material is disposed off/backfilled in excavations as part of the prospecting process.				
Extent	Site				Activity causing the impact
Duration	Permanent				An opencast prospecting method will be used to extract bulk samples. Therefore the original geology will be totally destroyed.
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT 2. TOPOGRAPHY	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	* **Change in landform** : * The prospecting site is situated on: hills and low mountains, slightly irregular plains but with some rugged terrain and low karroid shrubland on flat, gravel plains. * **Disturbance of the surface drainage:** The prospecting of the *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* deposits will result in the creation of trenches (10 m x 60 m x ±5 m or less), that act as depressions in the environment that captures run-off. The surface drainage is already disturbed. Normal surface drainage will be disturbed at a given point. Run-off if any will be diverted away from the specific site.				
Extent	Site				Activity causing the impact
Duration	Very long to Permanent				Bulk sampling trough trenches, etc.
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

3. SOIL	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	The surface area is characterized by various soil depths. Any construction of infrastructure should be preceded by the removal of all available topsoil.				
Extent	Site				Activity causing the impact
Duration	Long				In the process of removing topsoil the soil layers are mixed and the structure may be disturbed.
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

3. SOIL	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	The establishment, construction, operation and eventually rehabilitation (demolition) of listed structures such as the access roads, stockpiles, cause compaction of soil. Some areas already disturbed thus no topsoil. All prospecting activities will be concentrated on the identified prospecting focus area where *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* deposits could be found. In the same time a certain surface area is therefore alienated. The active prospecting surface area (alienated) would be restricted within the ±0.5 ha at any given time (in relation to area of application of the prospecting right of 741 hectares) for the next 5 years.				
Extent	Site				Activity causing the impact
Duration	Long				Site preparation for additional prospecting sites and the construction, operation of listed infrastructure.
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
3. SOIL					
Nature of the impact	Soil erosion: Due to the fact that certain surface areas would become compacted and this would lead to lesser infiltration of rainwater and more run-off that could cause erosion on bare disturbed surfaces. Erosion would always be possible until such time a vegetation cover is provided during rehabilitation phase.				
Extent	Site				Activity causing the impact
Duration	Very short				When removing topsoil during site preparation, little storm water control structures are in place. If a severe storm hits the area, it may lead to erosion on site. Topsoil stockpiles may be prone to erosion due to lack of vegetation cover. Water control structures may fail or severe rainstorms may cause excessive run-off. Surface compaction due to activities taking place.
Probability	Very low				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

	IMPACTS				CUMULATIVE IMPACTS
3. SOIL					
Nature of the impact	Potential of soil contamination.				None.
Extent	Site				Activity causing the impact
Duration	Long				Vehicle/equipment breakages and oil/lubricant /diesel spills may contaminate soil.
Probability	Moderate				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
3. SOIL					
Nature of the impact	Loss of soil structure				None
Extent	Site				Activity causing the impact
Duration	Long				In the process of removing topsoil the soil layers are mixed and the structure may be disturbed.
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
3.SOIL					
Nature of the impact	Loss of soil fertility				None
Extent	Site				Activity causing the impact
Duration	Short				The mixing of soil during site preparation, compaction and potential pollution (spillages form oil etc.) all may cause this situation.
Probability	Definite				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
4.LAND CAPABILITY					
Nature of the impact	**Temporary loss of land capability to support grazing.** The small area (0.5 ha) where the active prospecting activities occur (trenches, stock piles, prospecting equipment) etc. will thus be temporary alienated, until the area is rehabilitated. All trenches would be rehabilitated as part of the prospecting process during which trenches are back-filled. The rest of the application area will still be used by the landowner as agricultural land.				
Extent	Site				Activity causing the impact
Duration	Long				Site preparation for additional prospecting sites and the construction, operation of listed infrastructure, the land capability of the active prospecting area will be totally destroyed.
Probability	Definite				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT 5. LAND USE	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	This is a new prospecting operation and therefore will lose its land use to support grazing on a certain portion of the 741 hectares during the next 5 years. Only a small portions of land (0.5 ha at a time) would be affected by the prospecting operation relation to the total prospecting right application area of 741 hectares. All trenches would be rehabilitated as part of the prospecting process during which excavations are back-filled.				
Extent	Site				Activity causing the impact
Duration	Long to permanent				Site preparation for prospecting and the construction, operation of listed infrastructure
Probability	Definite				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

	IMPACTS				CUMULATIVE IMPACTS
6.VEGETATION					
Nature of the impact	Vegetation clearance, disturbance and trampling. Destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and spreading of exotics can follow.				
Extent	Site				Activity causing the impact
Duration	Long				The site preparation for new sites, construction of listed infrastructure will cause destruction of habitats for vegetation. Due to a disturbed ecosystem, bare ground and invasion of exotics could further spread. The vegetation needs to be cleared to remove the topsoil.
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT 6.VEGETATION	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Habitat change, loss of species, spread of alien and invasive species.				
Extent	Site				Activity causing the impact
Duration	Permanent				The change in the current habitat will be mitigated during final rehabilitation.
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT 6.VEGETATION	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Dust coverage of plants.				None
Extent	Site				Activity causing the impact
Duration	Long				Heavy trucks and other vehicles on dirt roads, stockpiling, dumping of tailings are mainly responsible for this impact.
Probability	High				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT 7. WILDLIFE	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Wildlife or wildlife habitat destruction /change / disturbance.				None
Extent	Site				Activity causing the impact
Duration	Permanent				The flora which normally serves as habitat for animals would be destroyed during site preparation. The increase in activity will temporarily scare other animals. The area will serve as a new habitat after rehabilitation.
Probability	Very High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
7. WILDLIFE					
Nature of the impact	Injury and death to wildlife.				None
Extent	Site				Activity causing the impact
Duration	Short				The movement of vehicles may kill certain insects, rodents and possible birds. Most of the remaining animal life will however move away due to noise.
Probability	Very low				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
7. WILDLIFE					
Nature of the impact	Restoration of habitat.				None
Extent	Site				Activity causing the impact
Duration	Short				As rehabilitation progresses the habitat of certain species will be restored/created (Closure objective) Animals will probably only move back when human movement is limited.
Probability	Low				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
8. SURFACE WATER					
Nature of the impact	Increased silt load. Clearing topsoil for footprint areas can increase infiltration rates of water to the groundwater system and decrease buffering capacity of soils to absorb contaminants from spills on surface. This can increase the risk of contamination of the groundwater system (increases aquifer vulnerability.				
Extent	Local				Activity causing the impact
Duration	Short				The clearance of vegetation and the traffic on access roads will all contribute to an increase in the silt load on the prospecting area.
Probability	Moderate				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
8. SURFACE WATER					
Nature of the impact	Change in surface water quality. Spillages from vehicles and also surface water run-off that is not adequately diverted away from the active prospecting excavations could end-up in the excavations creating problems regarding water quality and hindering the prospecting process. Surface run-off from active prospecting sites (overburden dumps & tailings dam/dump) if not adequately contained on site could end-up in the adjacent undisturbed natural veld. If the natural surface run-off is not adequately diverted in the case of the dry-water course area, prospecting sections it could become silted-up.				
Extent	Local				Activity causing the impact
Duration	Short				"Dirty / Clean" water systems at facilities like the overburden dumps, roads, trenches, etc. may impact on the quality of the surface water. The water should be contained in the surface runoff control measures provided therefore.
Probability	Moderate				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT	IMPACTS				CUMULATIVE IMPACTS
8. SURFACE WATER					
Nature of the impact	Change in surface water quantity: **Water management area (14): Lower Orange. The mine falls under the primary drainage region D73 and in quaternary sub-catchment D73F.** Notwithstanding the above-mentioned facts, it is not expected that prospecting operations will have any effect on the boundaries or the general water flow of the catchment. There is no stream running over the application area. Standing water in trenches could as the result of rain/ surface run-off ending up in shallow depressions.				
Extent	Site				Activity causing the impact
Duration	Long				It is an operational objective to contain or divert all surface run-offs from the active prospecting trenches area mainly due to pollution (sediment) potential. This will reduce the run-off quantity, although small in comparison with the drainage area in total.
Probability	High				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X		

ASPECT 9. GROUND WATER	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Reduction of groundwater quality. Prospecting activities are not likely to impact on local ground-water quality. No chemicals area used during the prospecting process. Handling of waste and transport of building material can cause various types of spills (domestic waste, pit latrines, hydrocarbons) which can infiltrate and contaminate of the groundwater system.				
Extent	Site				Activity causing the impact
Duration	Long				
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

9. GROUND WATER					
Nature of the impact	Even though abstraction is likely to have a minimal effect on the surrounding groundwater users, this is a new use, and groundwater levels are expected to continue current trends. Groundwater will be abstracted for potable water and dust suppression. The volume of water needed is small (2 000 Lit/hr) in comparison to other water use and will have a small impact on the surrounding aquifer.				
Extent	Site				Activity causing the impact
Duration	Long				Opencast prospecting operation.
Probability	Low				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT 10. AIR QUALITY	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Dust will be generated during the prospecting operation (loading with an excavator on to a dump truck) and transportation to the plant and on gravel/dirt/farm roads.				
Extent	Site				Activity causing the impact
Duration	Long				Initial construction work with regard to infrastructure (roads) that involves earth moving equipment. During the phase 2 & 3, dust could be generated as indicated during prospecting.
Probability	Moderate				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT 11. NOISE POLLUTION	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	Noise will be generated during the prospecting operation (loading with an excavator on to a dump truck) and transportation to the plant. The mine itself is located in rural landscape. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act.				
Extent	Local				Activity causing the impact
Duration	Long				Earth moving equipment and vehicles (trucks).
Probability	Definite				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT 12. ARCHAEOLOGICAL AND CULTURAL SITES	IMPACTS				CUMULATIVE IMPACTS
Nature of the impact	The terrain is not archaeologically vulnerable. It is unlikely that the proposed development will result in any significant archaeological impact at the site. No graves were identified on site.				
Extent	Site				Activity causing the impact
Duration	Permanent				
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X			

ASPECT	IMPACTS	CUMULATIVE IMPACTS

13. SENSITIVE LANDSCAPE					
Nature of the impact	No sensitive landscapes identified.				
Extent	Not applicable				Activity causing the impact
Duration	Not applicable				
Probability	Not applicable				
Significance	Not applicable				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
14.VISUAL ASPECTS					
Nature of the impact	Prospecting will be visible to the motorist traveling on the N14 if prospecting activities come within close proximity of it. And will also be visible to neighbours living there.				
Extent	Site				Activity causing the impact
Duration	Long				Mineral prospecting operation.
Probability	Definite				
Significance	Low				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
15. SOCIO ECONOMICS					
Nature of the impact	Increase in Socio – economic activity at local level. The project in itself would ensure that approximately 9 workers would be assured of a job for some time. Job creation plays a major role in increasing the economic wellbeing of employees and their dependants in the Gordonia district. Once all prospecting operations have ceased it would definitely have a negative impact.				The increase in socio-economic activity will add to the current growth and development in and around Kakamas.
Extent	Local				Activity causing the impact
Duration	Long				Additional employment opportunities created.
Probability	Definite				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
15. SOCIO ECONOMICS					
Nature of the impact	The main impact on the landowners is visual impact and the small area of 0.5 ha that will not be available for agricultural activities at any given time for 5 years.				The economic benefits in terms of investment and the delivery of services in the Northern Cape Province will get an additional benefit from the project.
Extent	Regional				Activity causing the impact
Duration	Very Long				
Probability	High				
Significance	Moderate				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

ASPECT	IMPACTS				CUMULATIVE IMPACTS
16. INTERESTED & AFFECTED PARTIES					
Nature of the impact	Impact of activities on I&AP's Temporary loss of utilization of the prospecting focus areas for agricultural purposes. The long-term benefits far out-weight the current benefits from the current use. No negative impact is expected that could be appropriately mitigated, such as the eventual rehabilitation of the excavations.				
Extent	Local				Activity causing the impact
Duration	Long				
Probability	High				
Significance	High				
Phase responsible for the impact	Phase 1	Phase 2	Phase 3	Closure	
		X	X	X	

vii) The positive and negative impacts that the proposed activity and alternatives will have on the environment and the community that may be affected

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(vii)

In terms of the EIA regulations, consideration must be given to alternatives. Alternatives are different approaches and ways of meeting the need, purpose and objectives of a proposed activity. Alternatives may include a location site alternative, activity alternatives, processes or technology alternatives, temporal alternatives etc. the no-go alternative or option is also considered, as it provides the baseline against which the impacts or other alternatives may be compared.

There is not an alternative for the location as this is the specific area where the applicant believes minerals can be found. Drilling is done in phases, over anomalous target areas where maps of Phase 1 showed potential. The prospecting during phase 2 will entail drilling of boreholes over the whole of the application area. There will not be a specific site for this as the whole of the application area will need to be surveyed. Furthermore with regards to the drilling, there is not a lot of option as all drilling exploration is done by a drilling rig. Using a variety of drilling rigs such as truck or trailer mounted, rods and hammers, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. The only alternative will be whether what method of processing to be used.

Since there will be no processing done on site, there will be no consideration given to diferent processing methods. The minerals that need to be tested will be hauled to the nearest ptocessing plant to be tested.

However, for this specific project, no alternatives have been investigated, with the exception of the no-go alternative. The reason for this being that the prospecting right is being applied for the sole purpose of prospecting for *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)*. The no-go option entails the continuation of the current land use (mainly natural grazing) on the study site. The project will contribute towards providing continued jobs for current staff. Should the proposed project therefore not be authorized to proceed, it is anticipated that current employment opportunities will be terminated once the mineral reserves have been depleted. The no-go option is therefore not a feasible option in this case, as it suggests that the mineral reserves should not be exploited and current employment opportunities should not materialize or be prolonged.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(viii)

Refer to the results of consultation contained as **Appendix 2** for the issues that were raised by I&AP's and stakeholders during the review period of the Consultation phase, as well as the response to those issues made by the Environmental Assessment Practitioner. The mitigation measures and technical management action plans which address potential impacts are discussed below.

Environmental Component	**Geology**
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• No mitigation exists except to backfill the trenches with the rock waste material. • As prospecting progressed and the excavation has been back-filled, a certain amount of overburden material and topsoil would be placed on these areas. This will not restore the geology, but will mitigate the impact. • Planned, systematic and thorough prospecting of the mineral resource *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* should take place. • Optimal utilization of the mineral resource should take place within the boundaries of the prospecting terrain. • Strip, remove and store soil and overburden as far as practical in an orderly fashion and replace as far as possible on back-filled areas, in the reverse order once decision have been taken that no further prospecting would take place in a particular section or which might still be traversed by vehicles and disturbed in the process. Cognisance should be taken of the fact that bulk sampling would take place by means of an opencast prospecting method until such level is reach / cut-off point is reach where rehabilitation could begin. • Care must be taken that the removal of *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* deposits by means of earthmoving equipment is restricted to what is really necessary to achieve the objective.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Optimal exploration of the mineral resource in order to ensure to facilitate better rehabilitation planning. The overburden and topsoil (where available) must be replaced in a responsible and planned manner in order to achieve some conformity with the surrounding undisturbed area.	

Environmental Component	**Topography**
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• All trenches should be back-filled with overburden material, covered with a shallow layer of topsoil (if available). • Access to all active bulk sampling excavation areas should be controlled. The active bulk sampling area should be fenced off. The necessary warning signs should be put in place. All prospecting activities should be restricted to the fenced-off area. • Surface run-off control should be put in place at active trenches (preventing water from entering) and also rehabilitated tailings dumps and overburden dumps in order to prevent the loss of growth medium on top of the dumps. • Prospecting would be done according to a definite PWP (only disturbing an area that is really necessary). As part of the PWP the handling of tailings material, overburden material, construction of dumps and back-filling of trenches should also form part of it. • Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal surface drainage to continue. As soon as a section of the prospecting site would not be explored anymore it should be rehabilitated (planned and phased manner).	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Rehabilitation of the disturbances topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal surface drainage to continue. Rehabilitation in such a way that the new landscape features would be stable and would not pose any safety hazard to human and animal anymore.	

Environmental Component	**Soil (topsoil & access roads)**
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Handling of topsoil as a natural resource: • Any future expansion of the trenches or construction of infrastructure should be preceded by the removal of all available topsoil. • The surface of any new areas to be disturbed must be kept to a minimum. All available topsoil/overburden material should be removed and stockpiled for rehabilitation purposes. **Access roads, etc:** • The clearing of soil surface areas would be restricted to what is really necessary for the construction of infrastructure. • Wherever possible all topsoil should be removed and stockpiled for rehabilitation purposes. Overburden material should also be stockpiled separately if practically possible. Topsoil and overburden material should be transported to an area earmarked for rehabilitation.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The topsoil removed in the site preparation process should be replaced during the rehabilitation exercise.	

Environmental Component	Soil (soil compaction)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Soil compaction: • The prospecting operation should only be restricted to what is really required (demarcated area of exploitation) within the fenced-off area. **Access roads:** • Towards the sites would be restricted only to the roads (exiting farm roads & roads established in consultation with the surface owner). No land would be disturbed unnecessarily. • Prospecting & rehabilitation should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required. • Compaction of soil surface areas would be alleviated once rehabilitation of certain area starts. Certain roads would probably remain for access (in consultation with the surface owner). Those that would not be required would be ripped and rehabilitated.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Alleviation of compaction of soils would be done during rehabilitation of the prospecting terrain, including roads.	

Environmental Component	Soil (Soil erosion)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Soil Erosion: • To take preventive steps against land disturbance like erosion. Implement and maintain cut-off trenches/berms to prevent erosion. **Re-vegetation of exposed soil surfaces** (man-made surfaces on, overburden dumps, disturb surfaces in excavated sites, roads, etc) should happen as soon as a particular activity has ceased in order to act as a sufficient erosion prevention measure.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No soil erosion must be visible and no potential for soil erosion must be present at closure.	

Environmental Component	Soil (Soil contamination)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Potential for soil contamination: • Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. • All oil spills on soil to be removed and bio-remediate immediately (certain commercial products are available such as Terrasorb or it could be rehabilitated by means of the application of fertilizer and turn with a spade from time to time in order to enhance the natural occurring soil microbial activity). • No servicing of vehicles must occur except on a concrete floor or over PVC lined area in an area allocated for that. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. • An incidence register for this purpose must be kept. • Drip trays must be available and used where emergency repairs is done.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No soil contamination must be visible or known before closure can be given.	

Environmental Component	Soil (Soil structure)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Change in Soil structure: • Ensure that all available (if any) topsoil is carefully removed in different areas. • The soil must also be compacted as backfilling is done. • No unnecessary driving outside the active prospecting area is allowed due to soil compaction that may occur. • Use organic material e.g. manure to restore the soil structure during rehabilitation. • Ensure that the rehabilitation plan makes provision for ripping of roads and spreading of organic material and that this is used during rehabilitation.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No compaction of any roads or any other area must be present during closure. If the soil structure is disturbed mitigation measures e.g. the use of organic material, lime and fertilizers must be implemented to restore the soil structure.	

Environmental Component	Soil (Soil fertility)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Soil fertility: • Little can be done to preserve the moisture status of the soil once it is exposed. The soil must be used for rehabilitation as quickly as possible. • The soil on the rehabilitated area must be analysed to determine the deficiencies and fertilizer and lime must be ploughed into the soil to restore its fertility, if necessary. • Ensure that stockpiled soil is kept clean and where possible ensure that the topsoil is treated with organic material and fertilized. • Do not use stockpiled soil for any other purpose but for rehabilitation. • Do not use topsoil to construct roads. • Ensure the rehabilitation plan makes provision for fertiliser. • Make sure rehabilitated topsoil is analyzed in a laboratory. The type of fertilizer would depend on a soil analyses and fertilizer recommendation.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The soil must be fertile enough to sustain vegetation.	

Environmental Component	Land Capability
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• The disturbance of land must be restricted (kept to a minimum) to the planned fenced-off, active prospecting site only. Remove topsoil where it is available. Take care that roads needed are restricted to one entry to the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with the surface owner. • All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Rehabilitated to the state that it is suitable for the predetermined and agreed land capability.	

Environmental Component	Land Use
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• The disturbance of land must be restricted (kept to a minimum) to the planned active, fenced-off prospecting site only. Remove topsoil where it is available. • Take care that roads are the only areas used to enter the area for prospecting purposes. If new land is used for roads to enter the area it must be done in consultation with surface owner. • All rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources (DMR). Topsoil will be placed in areas where it was removed and the areas will be re-vegetated accordingly. Ensure that the rehabilitation plan is implemented.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The opencast section requires the land to be totally disturbed. The replacement of tailings material, overburden and topsoil would ensure that the land is able to support some grazing.	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• No mitigation exists except to replace the vegetation by reseeding of grasses and natural growth. • Prospecting should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
During rehabilitation indigenous vegetation cover comprising of local plant species should be established in order to ensure a well-adapted sustainable plant cover that would be able to prevent erosion of the replaced topsoil on the disturbed prospecting site exposed surfaces, tailings dumps, etc.).	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Habitat change, loss of species, spread of alien and invasive species: • No mitigation exists except to replace the vegetation by reseeding of grasses. • Prospecting should be done in a well-planned manner (according to a PWP) and in the process ensuring that activities are only restricted to surface areas really required. ***Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species.*** • Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants. • An invasive and alien control programme must be implemented by the mine.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No invasive and alien species must be present after closure. A post-closure control program must also be implemented.	

Environmental Component	Vegetation
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Ensure that all roads on the prospecting site (utilized by prospecting vehicles) are daily sprayed with water to control dust. • Site inspections to ensure the spraying are done.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No excessive dust must be present during the normal growth season after closure.	

Environmental Component	Wildlife (habitat)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Wildlife or wildlife habitat destruction /change / disturbance : • To take care that no new or unnecessary destruction of habitats, other than the demarcated prospecting site should take place. **Restoration of habitat:** • Ensure the rehabilitation plan is implemented.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

Environmental Component	Wildlife (Injury and death)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Injury and death to wildlife: • Re-establish trees and grass cover as soon as possible during and after prospecting. Fence area off to ensure that no person can enter without permission. • Ensure that the rehabilitation plan is compiled and executed. Keep incidence register on killings and disturbances.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The animal life habitat must be restored after decommissioning. Success will be measured against the extent to which the animals return to the area.	

Environmental Component	Wildlife
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Make game catching, traps, snares, poaching and any other unnecessary disturbance of animals a disciplinary offence. • All staff must undergo basic environmental awareness lecture during induction training. • Machine operators and drivers to undergo appropriate level of environmental impact training to ensure they understand their impact on the environment. Ensure all staff working on the opencast section undergo basic lecture during induction phase. • Introduce the actions as listed above into disciplinary code as offence.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The post-closure phase must be suitable for further restoration of the newly man-made animal habitat. The area must be stable and acceptable for the return of animal- and plant life.	

Environmental Component	Surface Water (quality)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Change in surface water quality: • Storm water control measures must be implemented to divert clean water away from the active prospecting site and keep contaminated water contained. • Water control structures must be well designed and constructed to ensure a minimum down wash of topsoil. • Vegetation disturbance must be as little as possible. • The PWP must be strictly adhered to. • Re-vegetation to be done as quickly as possible. Final re-vegetation to be done as per rehabilitation plan.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The post closure water run-off may in no circumstance impact negatively on the water quality.	

Environmental Component	Surface Water (quantity)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Change in surface water quantity: • Once the area is rehabilitated the surface run-off will be restored and normal clean water run-off will end-up in the drainage system. • Once the area is rehabilitated the normal surface run-off drainage will be restored according to rehabilitation plan. The disturbed surface area must be rehabilitated to ensure some normal drainage. Minimal run-off should end-up in trenches. • Final rehabilitation will be done according to the final rehabilitation plans after approval by the Department of Mineral Resources.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Ultimately rehabilitation of the disturbed prospecting site and the construction of run-off control structures in a planned and phased manner would ensure normal drainage and stability of rehabilitated site.	

Environmental Component	Ground Water (quality)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Reduction of groundwater quality: • Storm water control measures must be implemented to divert clean water away from the site and keep (silt) contaminated water contained. • Vehicles to be inspected to ensure no oil and hydraulic fluid leaks occur. All oil spills on soil to be removed and bio-remediate immediately. No servicing of vehicles must occur except at the workshops. Training w.r.t pollution hazards and their impact on the environment must be given as part of induction training. • Storage of fuel and oil should be done according to best practices, within a bunded area and in containers of which the integrity is sound. • The prospecting processes will not introduce any harmful or toxic substances and the most likely sources of pollution to the groundwater system would be associated with the infrastructure and/or workshop area. The most likely contaminants is therefore nitrate and bacteria (from sewage / pit latrines), as well as hydrocarbons (from vehicle accidents, diesel storage and the workshop area). • An incidence register for this purpose must be kept. • Drip trays must be available and used where emergency repairs is done. • All waste must be stored according to best practices and disposed at an authorized waste disposal facility.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Post water quality need to indicate a positive trend/improvement.	

Environmental Component	Ground Water (quantity)
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Reduction of groundwater quantity, lowering of groundwater level: • Water levels in the boreholes that are used for prospecting activities should be recorded monthly. • Water volumes should be recorded continuously to ensure compliance with the water use authorization for abstraction.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Post water quality need to indicate a positive trend/improvement.	

Environmental Component	Air Quality
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Dust: • The prospecting method will serve as mitigation measure because prospecting will limit dust to the active prospecting area (area where the excavator and the trucks are operating). • Daily spraying of roads with water. Inspection should be done on a daily basis. • If new roads are constructed, in coordination with surface owner, dust pollution must be mitigated by means of spraying the roads with water.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Dust count must be the same as before prospecting. Rehabilitation of the bulk sampling site would ensure that no dust is generated from exposed surfaces.	

Environmental Component	Noise
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Ensure the required silencers are placed on all engines and compressors. No mitigation to reverse hooters is allowed due to safety standards. • Inspection of vehicles and machinery to ensure silencers are fitted. • Ensure that a complaints register is created, managed and maintained. Vehicles and earthmoving equipment should be equipped with the necessary silencers and regularly maintained in a good working condition.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No noise attributed to prospecting will be generated from the site after closure anymore. During decommissioning and closure phase some earth moving equipment and trucks would be utilized for rehabilitation.	

Environmental Component	Archaeological and Cultural Sites
Environmental Management/Mitigation Measures/Action Plans/Commitments	
No graves on site. However, the potential occurrence of unmarked graves or subsurface finds not recorded during this survey can never be excluded, so it is advised that SAHRA and a qualified archaeologist are informed immediately if archaeological objects are uncovered.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No site of archaeological importance should be disturbed or damaged until the necessary permit from SAHRA has been issued.	

Environmental Component	Sensitive Landscapes
Environmental Management/Mitigation Measures/Action Plans/Commitments	
None	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	

Environmental Component	Visual Aspects
Environmental Management/Mitigation Measures/Action Plans/Commitments	
Visual impact would be addressed by means of; * re-vegetation of disturbed areas with grasses; * removal of any temporary building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact. Concurrent rehabilitation should be done simultaneously as prospecting activities progress.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
No residual visual impacts will remain after closure. The terrain should blend in with the surrounding landscape.	

Environmental Component	Socio-Economics
Environmental Management/Mitigation Measures/Action Plans/Commitments	
There will be a very small increase in Socio – economic activity at local level, because of the size of this prospecting activity.	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
The economic development must deliver a multiplier effect that will contribute to the local economy long after closure.	

Environmental Component	Interested and Affected Parties
Environmental Management/Mitigation Measures/Action Plans/Commitments	
• Access control should always be a priority. Active prospecting site should be fenced off and also any deep water holes. • If any problem should arise, meetings will be held with the landowners and affected parties to consult them on certain matters like permission to prospect and pollution. • No prospecting should be conducted under or near Eskom power line (10 m distance should be kept) *(Permission of Inspector of Mines should be obtained.)*	
EMP Performance Assessment & Monitoring Reporting	
To be included in EMP/EIA.	
Closure Objective	
Not to be an economic, social or environmental liability to the local community or the state now or in the future. The company will ensure that the interest of all interested and affected parties will be considered.	

ix) The outcome of the site selection Matrix. Final Site Layout Plan

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(h)] (g)(ix)

As this is a prospecting right, it is not possible to determine a final site selection, as phase 1 and phase 2 of the prospecting right first need to be completed where. Phase 3 will entail that trenches will be made where the drilling in phase 2 have indicated the potential for the applied minerals. There will also not be only one trench, but depending on where the minerals are identify. This may or may not be over several locations over the application area. A map indicating progress as prospecting continue will be annually submitted.

x) Motivation where no alternative sites were considered

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(x)

Alternative is not applicable. There is not an alternative for the location as this is the specific area where the applicant believes minerals can be found. There will be no processing done on site, thus no alternatives need to be consider except to where the mineral will go for processing.

The applied area is the specific area need for prospecting thus no alternative. The current land use is natural grazing and a small cultivated area (±26 ha). The option to explore the possibility for prospecting is already in itself an alternative land use. The applicant **Ember Tetra Trading (Pty) Ltd.** is not interested in any other alternative land use over this land aside for the exploration of the said minerals, or any other activity, or method use other than prospecting for the said minerals in the conversional way, which is the most cost effective.

xi) Statement motivating the preferred site

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 2 – 2. (1)[(h)](g)(xi)

The prospecting operation will not be a static operation; the mobile plant will move as prospecting progress, thus the whole application is to determine where trenches need to be made in order to get a representative sample to determine is the minerals area economically viable to mine further. The feasibility of prospecting the diamond material from an environmental, social and economic perspective also plays a role.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(i)

Alternative is not applicable. For this specific project, no alternatives have been investigated. The activities included in this application are determined by the location of the mineral reserves in the study area, and the proposed prospecting method to be employed as was assessed. The current land use is agricultural and is being utilized as grazing and small portion as irrigation (±26 ha).

The option to explore the possibility for prospecting is already in itself an alternative land use. The applicant, **Ember Tetra Trading (Pty) Ltd**, is not interested in any other alternative land use over this land aside of diamonds exploration, or any other activity, or method use other than prospecting for diamonds in the conversional way, which is the most cost effective.

The No-Go option entails the continuation the current land use (agricultural grazing and cultivation) on the application area without exploiting the mineral reserves. The prospecting activities will contribute towards the achievement of providing employment opportunities for members of the surrounding communities, thus aiding socio-economic development. Should the project therefore not be authorized to proceed, the current employment opportunities will be terminated. Therefore, the No-Go alternative is not a feasible option in this case, as it suggests that the mineral reserves should not be exploited and current employment opportunities should not be prolonged. Alternative is not applicable for the application area. The current land use is agricultural and is being utilized as mainly cultivation with small fallout areas of natural grazing by the landowner.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(ii)

The aspects that will be assessed as part of the proposed project and its area include:

- Geology
- Soil Erosion
- Rehabilitation of previously disturbed areas
- Fauna [Wildlife/Wildlife habitat destruction]
- Changes is surface water quality
- Dust
- Noise
- Archaeological/Cultural Sites

Geology:

(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn) deposits will be destroyed during the opencast prospecting operation.

During operation which will be for the next 5 years, the mineral resource (*Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* will be extracted from deposits. Overburden material is disposed off/backfilled in excavations as part of the backfilling process.

Soil erosion:
Due to the fact that certain surface areas would become compacted and this would lead to lesser infiltration of rainwater and more run-off that could cause erosion on bare disturbed surfaces. Erosion would always be possible until such time a vegetation cover is provided during rehabilitation phase.
Temporary loss of land capability to support grazing. The small area (0.5 ha) where the active prospecting activities occur (trenches, stock piles, prospecting equipment) etc. will thus be temporary alienated, until the area is rehabilitated.
All trenches would be rehabilitated as part of the prospecting process during which trenches are back-filled. The rest of the application area will still be used by the landowner as agricultural land.

Rehabilitation:
This is a new prospecting operation and therefore will lose its land use to support grazing on a certain portion of the 741 hectares during the next 5 years. Only a small portions of land (0.5 ha at a time) would be affected by the prospecting operation relation to the total prospecting right application area of 741 hectares. All trenches would be rehabilitated as part of the prospecting process during which excavations are back-filled.

Wildlife or wildlife habitat destruction/change / disturbance:
Increase silt load. Clearing topsoil for footprint areas can increase infiltration rates of water to the groundwater system and decrease buffering capacity of soils to absorb contaminants from spills on surface. This can increase the risk of contamination of the groundwater system (increases aquifer vulnerability).

Change in surface water quality:
Spillages from vehicles and also surface water run-off that is not adequately diverted away from the active prospecting excavations could end-up in the excavations creating problems regarding water quality and hindering the prospecting process.
Surface run-off from active prospecting sites (overburden dumps) if not adequately contained on site could end-up in the adjacent undisturbed natural veld.
If the natural surface run-off is not adequately diverted in the case of the dry-water course area, prospecting sections it could become silted-up.

Dust:
Dust will be generated during the prospecting operation (loading with an excavator on to a dump truck) and transportation on gravel/dirt/farm roads to processing plant of site.

Noise:
Dust will be generated during the prospecting operation (loading with an excavator on to a dump truck) and transportation on gravel/dirt/farm roads to processing plant of site. The mine itself is located in rural landscape. The impact would be of more importance regarding the direct worker environment that should adhere to the requirements in terms of the Mine Health and Safety Act.

Archaeological/Cultural Sites:
The terrain is not archaeologically vulnerable. It is unlikely that the proposed development will result in any significant archaeological impact at the site. No graves were identified on site.

iii. Description of aspects to be assessed by specialists

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(iii)

As this is only a prospecting application and no sensitive areas or heritage areas of significance were noted on the application area there will be no specialist studies. All impacts noted will be mitigated.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(iv)

A thorough foot survey and site inspection was done by the EAP and further visit will be done before compiling the EIA. Each aspect was then assessed individually with the 21 year experience of the EAP.

v. The proposed method of assessing duration significance

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(v)

The assessing of the duration is done on hand of the different phases as described in the Prospecting Works Program (PWP) which is also descried under ***Point ii) h)***. The significance is assessed form experience and from the actual situation on the specific site. Please see ***Point vi)*** for detail.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(vi)

Consultation with all competent authorities will be done. The EIAr/EMPr will be send to them from the office of the EAP.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(vii)

1. Steps to be taken to notify interested and affected parties.
   The landowner, as well as the competent authorities was consulted. Please see **Table 6** for more detail on public participation process, as well as Appendix 2 for the result of consultation.

2. Details of the engagement process to be followed.
   The process as described by NEMA for Environmental Authorization was followed. See **Table 6** for the identification of Interested and Affected Parties to be consulted with. The landowners (Winsbeslis Vyf (Pty) Ltd.), neighbours and land users was consulted personally and through written letter that are given to them by hand. A site notice was placed at the entrance to the application area, see **Appendix 2**. With this site notice all passers-by are requested to submit any written comments to be forwarded to the consultant (still awaiting response). A notice for the Scoping Report was published in the Namakwalander Newspaper of 25th September 2020 and again for the EIAr/EMPr also in the Namakwalander Newspaper of 27th August 2021 response is awaited. See proof of consultation already done under **Appendix 2**. The Public Participation process is still on-going and the documents will be updated as more feedback is received back. The EIAr/EMPr will be send to all relevant State Departments for evaluation. No comments were received.

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

A copy of the map, and Prospecting Works Programme and draft EIAr/EMPr was handed to the neighbours and landowners, where requested for it. A copy of the Scoping Report was send to the State Departments and a copy of the EMP/EIA will also be circulated to their offices.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(viii)

Site inspection by foot survey, discussions with applicant and landowner as well as discussions with competent authorities where necessary. Completion of the EIA template.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix2 – 2. (1)[(i)](h)(a)(ix)

This will be kept in mind with the site inspection where each impact will again be evaluated and the mitigation and management thereof will be confirmed on site. The risk of each impact will be evaluated and if any residual risks the management thereof.

i) Description of process undertaken to identify, assess and rank the impacts, the activities and associated structures and infrastructure will impose on the development footprint

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(i)

(i) & (ii) Description of all environmental issues and risk and assessment of significance of each issue

NAME OF ACTIVITY	POTENTIAL	ASPECTS AFFECTED	PHASE	SIGNIFICANCE	MITIGATION TYPE	SIGNIFICANCE if mitigated
Excavations for gravel and stone	1.1 Removal of the gravel up to 5m. Disturbance of 0.5 hectare at any given time.	Geology & soil	Operational	High -	The impact will be mitigated by backfilling and sloping the sides and stabilizing the soil to prevent erosion	Low +
	1.2 Change in landform. The entire prospecting area will be lowered by 5m and normal surface drainage will be disturbed at this specific point. The pit will be backfilled	Topography	Operational and closure	Moderate -	The pit will be backfilled. The sides will be sloped and top soiled and vegetated. A surface water cut-off trench should be put in place around the active prospecting site in order to prevent surface run-off water on the prospecting site. Rehabilitation of the new sloped landscape in such a way that it would blend in with the surrounding landscape.	Moderate +
	1.3 Stripping of all available topsoil and stockpiled. Stockpile and plant area of 0.5 hectare at any given time.	Soil	Construction and Operational	Low -	Any area on the prospecting area where disturbance will take place the top soil must be removed and stockpiled for rehabilitation purposes in a demarcated area.	Low +
	1.4 Soil erosion: Due to the fact that certain surface areas would become devoid of any vegetation cover and compacted this would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes	Soil	Construction	Low-	To take preventive steps against erosion. Implement and maintain cut-off trenches and or berms around the prospecting area to prevent water entering that can cause erosion. Concurrent rehabilitation and re-vegetation of mined areas must happen as soon as the particular area is mined out. Rehabilitated areas must be inspected and managed in such a way that any signs of erosion can be mitigated immediately.	Low +
	1.5 Land capability and land use. Loss of land to support grazing.	Land capability & Land use	Operational and closure	Low-	As this is only a very small area of 0.5 hectare, the impact is not so big. As the excavation will be backfilled and vegetated the rehabilitated area must be treated as sensitive when grazed as overgrazing can trigger erosion and infiltration of declares weeds.	
	1.6 Generation of dust by excavating and vehicle movement	Air quality	Operational	Low -	The prospecting method will serve as mitigation measure because it will limit dust to the active prospecting area, where the excavator and trucks operating. Daily spraying of the roads with water.	

j) An assessment of each identified potentially significant impact and risk

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(j)

NAME OF ACTIVITY	POTENTIAL IMPACT	(i) CUMULATIVE IMPACTS	(ii) SIGNIFICANCE	(iii) EXTEND AND DURATION	(iv) PROBABILITY OF THE IMPACT OCCURRING	(v) DEGREE TO WHICH IMPACT/RISK CAN BE REVERSED	(vi) DEGREE TO WHICH IRREPLACEABLE LOSS MAY OCCUR	(vii) DEGREE TOWHICH IMPACT/RISK CAN BE MITIGATED
Excavations for gravel and stone	1.1 Removal of the gravel up to 5m. Disturbance of 0.5 hectare at any given time.	None	High -	At open excavations 5 years	High	Impossible	Not reversible at all	Not mitigated
	1.2 Change in landform. The entire prospecting area will be lowered by 5m and normal surface drainage will be disturbed at this specific point. The pit will be backfilled	Topography on adjacent farms if prospecting is also practised	Moderate -	5 years	Moderate	Possible	Partly reversible	Fully Mitigated
	1.3 Stripping of all available topsoil and stockpiled. Stockpile and plant area of 0.5 hectare at any given time.	Localized	Low -	5 years	.High	Impossible	Partly reversible	Fully Mitigated
	1.4 Soil erosion: Due to the fact that certain surface areas would become devoid of any vegetation cover and compacted this would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes.	Localized	Low-	5 years	Low	Possible	Reversible	Fully mitigated
	1.5 Land capability and land use. Loss of land to support grazing.	If old disturbances not rehabilitated.	Low-	5 years	Low	Possible	Reversible	Full mitigated
	1.6 Generation of dust by excavating and vehicle movement	Air quality	Low -	5 years	Low	Possible	Reversible	Fully mitigated.

k) Summary of findings and recommendations of any specialist reports

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(k)

LIST OF STUDIES UNDERTAKEN	RECOMMENDATIONS OF SPECIALIST REPORTS	SPECIALIST RECOMMENDATIONS THATHAVE BEEN INCLUDED IN THE EIA REPORT	REFERENCE TO APPLICABLE SECTION OF REPORT WHERE SPECIALIST RECOMMENDATIONS HAVE BEEN INCLUDED.
None			

No specialist reports were conducted for the following reasons: There were no sensitive or vulnerable areas identify and all prospecting activities will be kept away for the irrigated agricultural cultivated land. The bulk sampling will not be deeper than 5m thus groundwater table will not be intersected. With the site visit there were no environmental sensitive area identified. All the impacts identified can be mitigated and will not be significant. This will only be a prospecting for short period.

l) Environmental impact statement

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(l)(i)(ii)(iii)

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

The small scale prospecting operation is definitely going to have an impact on the environment. The main impact relates to topography, geology, soil, vegetation, and land use and land capability. The *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* resource will be prospected over a period of 5 years. The existing land-use is utilized mainly as natural grazing with small irrigated cultivated field of ±26 ha. This operation will be for the next 5 years and only a small portion of the farm will be temporarily alienated.

The conservation of topsoil is of utmost importance and therefore in order to ensure a sustainable land use again on the 0.5 ha, the top at least 30 cm topsoil need to be removed prior to prospecting of the underlying alluvial gravel (up to 5 m depth). This will be used again as growth medium during the rehabilitation phase of the excavations. Topsoil will be stored in berm walls on the border of the excavation in order to divert any surface run-off during a rainfall event. Other environmental impacts relates to the day to day operation that could easily be managed, such as dust and noise.

(ii) Final Site Map

As this is a prospecting right, it is not possible to determine a final site selection, as phase 1 and phase 2 of the prospecting right first need to be completed where. Phase 3 will entail that trenches will be made where the drilling in phase 2 have indicated the potential for the applied minerals. There will also not be only one trench, but depending on where the minerals are identify. This may or may not be over several locations over the application area. A map indicating progress as prospecting continues must be submitted annually.

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

The site is selected in such a way that farming will still be possible on the rest of the farm. No prospecting will be done over the irrigated agricultural land. The loss of land use and land capability will be temporary as the site will be rehabilitated in such a way that it allows the establishment of some sort of cover again as this is a fairly arid part of our country and as this situation is now, pre-prospecting there is very little to no vegetation cover. The rest of the farm will still be continued to be used for grazing for cattle. Although this is small *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)* prospecting operation it would also add to the increased economic activity within the farming community around Kakamas. Jobs for 9 permanent laborers will be created. Negative impacts on the area are expected to be temporary and can be mitigated to a large extent if the recommendations of the EMP are adhered to e.g. rehabilitation. No concerns have been raised as yet by any I & AP. The specific occurrence of the

(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn) deposit dictates the selection of the specific prospecting site.

m) Based on the assessment and where applicable, recommendations from specialist reports, proposed impact management objectives and the impact management outcomes for inclusion in the EMPr;

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(m)

The main closure objective of **Ember Tetra Trading (Pty) Ltd.** is to rehabilitate the entire prospecting site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. The applicant will ensure that the Operation/Sites are:

- Neither a danger to public health and safety nor to animal health and safety;
- Not a source of any pollution;
- Stable (ecological and geophysical);
- Rehabilitated to the state that is suitable for the predetermined and agreed land use (grazing);
- Compatible with the surrounding biophysical environment;
- A sustainable environment;
- Aesthetically acceptable;
- Not an economic, social or environmental liability to the local community or the state now or in the future.

n) Final proposed alternatives

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(n)

None

o) Aspects for inclusion as conditions of Authorisation

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(o)

None

p) Description of any assumptions, uncertainties and gaps in knowledge

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(p)

None

q) Reasoned opinion as to whether the proposed activity should or should not be authorized

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(q)

Reasons why the activity should be authorized or not

This activity will have only low and very low impacts and no significant impacts were identified. No concerns were raised by the interested parties. These prospecting activities will have no significant impacts on them or their surrounding environment.

Conditions that must be included in the authorization

None

r) Period for which the Environmental Authorization is required

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(r)

5 years

s) Undertaking

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(s)

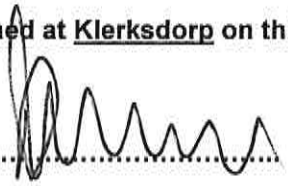
The Environmental Management Programme will, should it comply with the provisions of section 39 (4) (a) of the Act and the right be granted, be approved and become an obligation in terms of the right issued. As part of the proposed Environmental Management Programme, the applicant is required to provide an undertaking that it will be executed as approved and that the provisions of the Act and regulations thereto will be complied with.

UNDERTAKING BY EAP TO THE CORRECTNESS OF THE INFORMATION.

UNDERTAKING

I, D.E. Erasmus, the undersigned and duly authorised thereto by DERA Omgewingskonsultante (PTY) Ltd hereby confirm the inclusion of comments from stakeholders, inclusion of specialist recommendations where applicable and all information provided to the interested and affected parties a true reflection of this document.

Signed at Klerksdorp on this day 27th August 2021.



Signature of EAP

t) Financial Provision

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(t)

In total there will be 10 trenches (0.6ha) where it is taken on worst case scenario that 5 trenches of 0.3ha will be open at any given time and 0.2 ha will be used for the stockpile area.
R111 667.00 for rehabilitation. See quantum attached as **Appendix 4.**

u) Indicate any deviation from the approved Scoping Report

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(u)

(i) The same methodology was used for determining the significance of the potential environmental impacts and risks with no deviation.
(ii) No deviation.

v) Any specific Information required by the competent Authority

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(v)

No specific information by Authority.

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 3 – 3. (1)(w)

There are no alternatives, as the application area applied for is the area where the applicant believes is potential for alluvial gravel deposits.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

1) Environmental management programme

a) Details of the EAP

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(a)

Name of the Practitioner: DERA Environmental Consultants (Pty) Ltd.
Mr. Daan Erasmus
Tel No.: 018-468 5355
Fax No. : 018 011 3760
E-mail address:daane@dera.co.za
The EAP Mr. Daan Erasmus has a National Diploma in Agriculture Resource Utilization and a Baccalaureus Technologiae degree in Agricultural Extension. See **Figure 1** & **Figure 2** for copies of his qualifications and CV.

b) Description of the Aspects of the Activity

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(b)

Activities	Description of phases	Associated structures and infrastructures
Phase 1	Geological desktop studies and surveys in order to try and identify the gravel run. Various geological maps and instruments will used to identify if manganese deposits and or other listed minerals might be present on the application area. 12 Months needed for phase 1.	None
Phase 2	Drilling of boreholes: Using a variety of drilling rigs such as truck or trailer mounted, rods and hammers, the ore body can be evaluated by drilling intersecting holes at locations predetermined by the Geologist. Drilling is done in phases, over anomalous target areas where maps of Phase 1 showed potential, using reconnaissance lines or a grid of 250x250m depending on the level of confidence in the targets and the level of information required. The holes will be approximately 10 - 30m meters deep depending on local depth of the bedrock. It is envisaged that 30 boreholes will be drilled.	No infrastructure only moveable drilling rig.
Phase 3	In order to determine if the grade of the Manganese is sellable the ore needs to be taken out and tested, by putting it through the washing process. Trenching will be used to open the gravel in order to get a representative sample for testing. The trenches will be 10 x 60 x ± 5 m (deep). In one trench ± 3000m³ (4800 ton) ore will be exposed and processed through a screening plant at a rate of 15m³ (24 ton) an hour. The total prospecting area is 741 hectares, thus it is anticipated that a total of 30 000m³ (48 000ton) will be tested by making trenches on different locations over the whole prospecting area, where the possibility of diamond bearing gravel were identified with the test pits. Taken at an 8 hour working day, 5 days a week and 20 days a month, the applicant will be able to process 2400m³ a month. The processing of 30 000m³ will take about 24 months for Phase 3 including the rehabilitation.	The topsoil and grass will be cleaned on the area of 10 m x 60 m x ±5 m where the trenches will be excavated. After evaluation of the ore the trenches will be closed. Rehabilitation of the trenches back to original land capability/ use with topsoil and proper leveling.

c) Composite Map

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(c)

As this is a prospecting right, it is not possible to determine a final site selection, as phase 1 and phase 2 of the prospecting right first need to be completed where. Phase 3 will entail that trenches will be made where the drilling in phase 2 have indicated the potential for the applied minerals. There will also not be only one trench, but depending on where the minerals are identify. This may or may not be over several locations over the application area. A map indicating progress as prospecting continues must be submitted annually.

d) Description of Impact management objectives including management statements

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(d)

i) Planning and design

The main closure objective of **Ember Tetra Trading (Pty) Ltd.** is to rehabilitate the entire prospecting site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued. As this area was disturbed before there is not top soil available on all the areas but on the non-disturbed area all available top soil will be stripped and stockpiled.

Ember Tetra Trading (Pty) Ltd. will ensure that the Operation/Sites are:

- ✓ Neither a danger to public health and safety nor to animal health and safety;
- ✓ Not a source of any pollution;
- ✓ Stable (ecological and geophysical);
- ✓ Rehabilitated to the state that is suitable for the predetermined and agreed land use;
- ✓ Compatible with the surrounding biophysical environment;
- ✓ A sustainable environment;
- ✓ Aesthetically acceptable;
- ✓ Not an economic, social or environmental liability to the local community or the state now or in the future.

Ember Tetra Trading (Pty) Ltd. will furthermore:

- ✓ Ensure that the physical and chemical stability of the rehabilitated site will be such that risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be contended with by the installed measures;
- ✓ Subscribe to the optimal exploitation and utilization of South Africa's mineral resources *(Manganese Ore (Mn), Rare Earths (RE), Vanadium Ore (V), Tin Ore (Sn) & Zink Ore (Zn)*;
- ✓ Ensure that the prospecting site is closed efficiently and cost effectively.
- ✓ Ensure that the operation is not abandoned but closed in accordance with the relevant requirements;
- ✓ Ensure that the interest of all interested and affected parties will be considered;
- ✓ Ensure that the all-relevant legislation regarding mine closure will be adhered to, and all relevant application procedures followed.

ii) Pre-construction activities

Clearing of vegetation and stockpiling of top soil

iii) Construction activities

Ember Tetra Trading (Pty) Ltd. will ensure that the Operation/Sites are:

- ✓ Neither a danger to public health and safety nor to animal health and safety;
- ✓ Not a source of any pollution;
- ✓ Stable (ecological and geophysical);
- ✓ Rehabilitated to the state that is suitable for the predetermined and agreed land use;
- ✓ Compatible with the surrounding biophysical environment;
- ✓ A sustainable environment;
- ✓ Aesthetically acceptable;
- ✓ Not an economic, social or environmental liability to the local community or the state now or in the future.

iv) **Rehabilitation of environment after construction and post closure**

The main closure objective of **Ember Tetra Trading (Pty) Ltd.** is to rehabilitate the entire prospecting site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued.

v) **If relevant, operation activities**

Not relevant

e) Impact Management Outcomes

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)[(e)

ACTIVITY	POTENTIAL IMPACT	ASPECTS AFFECTED	PHASE	MITIGATION TYPE	STANDARD TO BE ACHIEVED
1. Excavations for alluvial gravel	1.1 Removal of the gravel up to 5 m	Geology & soil	Operational	The impact will be mitigated by backfilling and sloping the sides of the excavation and stabilizing the soil to prevent soil erosion.	Stable slopes that can sustain erosion without excessive erosion.
	1.2 Change in landform. The entire prospecting area will be lowered by 5m and normal surface drainage will be disturbed at this specific point. The pit will be backfilled	Topography	Operational and closure	The side of pit will be sloped and the soil stabilized to prevent erosion. A surface water cut-off trench should be put in place around the active prospecting site I order to prevent surface water on the prospecting site. Rehabilitation of the new sloped landscape in such a way that it would blend in with the surrounding landscape.	Gentle stable slopes.
	1.3 Stripping of all available topsoil and stockpiled	Soil	Construction and operational	The top soil must be removed before any disturbance take place. The top soil must be removed and stockpile in a demarcated area for rehabilitation purposes.	Enough topsoil for rehabilitation to ensure sustainable vegetation.
	1.4 Soil erosion due to the fact that certain surface areas would become devoid of any vegetation cover and compacted. This would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes.	Soil	Construction and operational	To take preventive steps against erosion. Implement and maintain cut-off trenches and or berms around the prospecting area to prevent water entering that can cause excessive erosion.	No excessive erosion that cannot be stabilized.
	1.5. Loss of Land capability & land use.	Land capability & land use	Operational and closure	As this is only a very small area of 0.5 hectare, the impact is low. As the sides will be sloped and vegetated, the rehabilitated area must be treated as sensitive when grazed as overgrazing can trigger erosion and infiltration of declared weeds.	Sustainable rehabilitated area.
	1.6 Generation of dust by excavating and vehicle movement	Air quality	Operational	The generation of dust will only be localized at the prospecting site. Daily spraying of roads with water	No excessive dust that can be harmful to the environment and humans.

f) Description of Proposed Impact Management Actions

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(f)

ACTIVITY	POTENTIAL IMPACT	MITIGATION TYPE	TIME PERIOD FOR IMPLEMENTATION	COMPLIANCE WITH STANDARDS
Excavations for alluvial gravel	1.1 Removal of the gravel up to 5 m	The bulk of the material removed will be washed and the puddle back to the excavation. The impact will be mitigated by backfilling the excavation and stabilizing the soil to prevent soil erosion.		
	1.2 Change in landform. The entire prospecting area will be lowered by 5 m and normal surface drainage will be disturbed at this specific point. The pit will be backfilled	The pit will be backfilled and the soil stabilized to prevent erosion. A surface water cut-off trench should be put in place around the active prospecting site in order to prevent surface water on the prospecting site. Rehabilitation of the new rehabilitated landscape in such a way that it would blend in with the surrounding landscape.		
	1.3 Stripping of all available topsoil and stockpiled	The top soil must be removed before any disturbance take place. The top soil must be removed and stockpile in a demarcated area for rehabilitation purposes		
	1.4 Soil erosion due to the fact that certain surface areas would become devoid of any vegetation cover and compacted. This would lead to lesser infiltration of rain water and more run-off that could cause erosion on bare disturbed areas and side slopes.	To take preventive steps against erosion. Implement and maintain cut-off trenches and or berms around the prospecting area to prevent water entering that can cause excessive erosion.		
	1.5 Loss of Land capability & land use	As this is only a very small area of 0.5 ha, the impact is low. As the sides will be sloped and vegetated, the rehabilitated area must be treated as sensitive when grazed as overgrazing can trigger erosion and infiltration of declared weeds.		
	1.6 Generation of dust by excavating and vehicle movement	The generation of dust will only be localized at the prospecting site. Daily spraying of roads with water		

g) Method of monitoring the implementation of impact management actions

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(g)

Monitoring by daily checks by manager.

h) Frequency of monitoring the implementation of impact management actions

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(h)

Report Monitoring will be done continuously and annual Audit

i) Indication of person responsible for implementation of the impact management actions

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(i)

The applicant.

j) Time periods within which actions must be implemented

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(j)

The rehabilitation liability will be reviewed annually and a Performance Assessment report will be submitted annually.

k) Mechanisms for monitoring compliance with the impact management actions

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(k)

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
Prospecting site/Soil	Possible spillages of petrochemicals. Stripping of topsoil	Checking for spillages on daily basis. Checking correct stripping and	Manager and Applicant	Daily checking and reporting with Performance Assessment
Prospecting site/Topography	Concurrent backfilling of excavations.	Checking stability of slope and erosion preventive measures	Manager and applicant	Quarterly
Prospecting site/Air quality	Dust pollution from prospecting activities.	Regular wetting of roads and stockpile area where loading take place.	Manager and applicant	Daily
Prospecting site	Chemical toilet	Make sure that it is used and hygienic.	Manager and Applicant	Weekly.

l) Program for reporting on compliance

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(l)

An EMP Performance Assessment will be submitted to the Management and the DMR on an annual basis.

m) Environmental Awareness Plan

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

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(m)

Ember Tetra Trading (Pty) Ltd. will contract DERA Environmental Consultants to inform the employees after the EMP was approved.

The following guidelines will be used:

- ✓ Communication
- ✓ Urge
- ✓ Leadership
- ✓ Teamwork

- ✓ Understanding
- ✓ Recognition
- ✓ Empowerment (CULTURE)

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

The biggest risks will be the degradation of soil/ land capability if the top soil is not handled correctly. The risks of soil pollution by spillages of fuel and oil will be managed on a daily basis checking for leaks on equipment and proper storage of oil and fuel. Concurrent proper rehabilitation of the excavations will ensure that pre-mining land capability can be restored.

The main closure objective of **Ember Tetra Trading (Pty) Ltd.** is to rehabilitate the entire prospecting site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued. As this area was disturbed before there is not top soil available on all the areas but on the non-disturbed area all available top soil will be stripped and stockpiled.

The risks will be dealt with by proper management actions as described in 1d

n) Specific information required by the Competent Authority

In term of NEMA – EIA Regulations No. 326 of 7 April 2017 – Reg. 21, Appendix 4 – 1. (1)(n)

The quantum for rehabilitation liability will be reviewed with the performance assessment on annual basis.

Table 10: Monitoring Plan

Action	Frequency	Method	Period
1.Monitoring of perimeter fence	Monthly and following any heavy rainfall.	Foot or vehicle patrol. Record	Until closure.
2.Monitoring of re-vegetation Mined out and rehabilitated areas Leveled and Rehabilitated Dumps Mine residue dam walls Old roads Covered over waste pits Rehabilitation plots	Every 6 months	Foot inspection Initiate set up of test plots Photograph. Transect / Quadrant Get consultants in if necessary.	Until closure.
3.Monitoring of erosion Roads Mine residue dam walls Rehabilitated mined out areas Dumps Pumps and pipelines Any other areas	Every 6 months and following any heavy rainfall	Visual inspection Walk over rehab. Areas Drive along roads. Check pipelines and pumps: mine residue dams, dumps. Photographic records.	Until closure
4. Monitoring of alien plants over the whole site.	On-going until under control - then every 6 months.	Visual inspection on foot patrol. Map presence of invasive plants. Plan removal, remove and document area covered on monthly basis. Verify Photograph.	On-going until closure
5. Monitoring of Water Quality from selected points	Every 6 months	Build up database and graph the results. Compare with limits and take action on non-conformances.	Until closure.
6. Monitoring of all Rehabilitation Areas. Check compliance with gradients and variation in topography	Every 6 months.	Survey- map new rehabilitated areas. Plot on map and calculate area treated, Get rehab consultants in if necessary.	Until closure.
7. Monitoring of stability of mine Residue dams and water Storage facilities.	Monthly and summarize every 6 months	Follow specifications in mandatory code of practice for puddle dams	Until closure

8.Monitoring of disposal of metal scrap, old oil, oil filters, old oil drums, oily cloths, batteries, fluorescent tubes, tires and contaminated soil (Hazardous waste)	Monthly and summarize every 6 months.	Record each load sent off the site. Give used oils to Oilkol Ensure safe disposal certificates are obtained from suppliers if the material is given back to them.	Until closure.
9.Monitoring of maintenance of general waste disposal	All loads of waste to be recorded and quantity extrapolated. Covering of waste pit - Monthly.	Running total of loads of waste taken Record of waste taken to Bloemhof waste disposal site Keeping record of waste taken to disposal site	Until closure
10.Monitoring of condition of septic tanks	Every six months	Visual inspection. Record condition.	Until closure
11. Monitoring of condition of bunded Areas around diesel fuel tanks, Refueling area, old oil tank; and underground petrol tank.	Every six months.	Visual inspection	Until closure
12. Monitoring of water use.	Monthly	Record total water use and water use at different plants by recording flow meters. Ensure compliance with license.	Until closure

2) UNDERTAKING

The Environmental Assessment Practitioner

I, **DE Erasmus**

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realize that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;
- I have a vested interest in the proposed activity proceeding, such vested interest being:

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

DERA Omgewingskonsultante (Pty) Ltd
Name of company

-END-

APPENDIX 2 - RESULTS OF CONSULTATION

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 sent and/or Comments Received	Issues raised	EAP's response to the applicant
AFFECTED PARTIES				
Landowner/s	X			
Winsbeslis Vyf (Pty) Ltd.		22 Sep 2020	Consultation letter was delivered by hand to the landowner. The landowner said that his attorney will contact us regarding the consultation.	
Lawful occupier/s of the land	X			
Landowners or lawful occupiers on adjacent properties	X			
(Neighbour)		22 Sep 2020	Consultation letter delivered to neighbour, awaiting response	
Municipal councilor				
Municipality	X			
Kai!Garib Local Municipality\ Ms. G. Cloete Private Bag X6, Kakamas, 8870 Tel: 054 461 6400 Fax: 054461 6401		20 May 2020 23 Sep 2020	Consultation letter sent via fax	No response received
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA.				
Eskom				
Communities				
Dept. Land Affairs	X			
Ms. Ruwayda Baulackey Tel: 053 807 5700; E-mail: baulackey@drdlr.gov.za		20 May 2020 23 Sep 2020	Request for verification of land claims sent to Ms Baulackey	
Traditional Leaders				
N/A				
Dept. Agriculture, Land Reform and Rural Development	X			
Thembisile Mabuza 02 Harrison Street, De Beers, Kimberley, 8301 Tel: 053 807 2612 /2600 Cell: 064 8690 976		24 July 2021	EMP/EIA sent via Courier Guy for comments	
Dept. Water and Sanitation	X			
Chief Director: Northern Cape Mr. Abe Abrahams 28 Central Road, Beaconsfield, Kimberley, 8300 Tel: 053-830 8800; E-mail: AbrahamsA@dws.gov.za		24 July 2021	EMP/EIA sent via Courier Guy for comments	
Other Competent Authorities				
OTHER AFFECTED PARTIES				
INTERESTED PARTIES				

Notice published in the Namakwalander 27 AUGUST 2021

AFFIDAVIT

I, the undersigned,

THABANG FRANS SHOMANG

state under oath that:

1. The facts herein contained are, unless otherwise indicated, within my personal knowledge and are both true and correct.

2. I am a director of Ember Tetra Trading Proprietary Limited ("**Ember Tetra**").

3. Ember Tetra has been issued with an Acceptance Letter by the Department of Mineral Resources and Energy ("**DMRE**") pursuant to its application for a prospecting right for Manganese, Rare Earths, Tin, Vanadium and Zinc.

4. The Acceptance Letter was issued by the DMRE in respect of Vaalhoek 469, a Portion of Farm 584, a Portion of Zwart Boois Berg Suid 677 situated within the Administrative District of Kenhardt (the "**Property**").

5. On 21 October 2020, I together with a gentleman named Tebogo Maoto, attended at the Property to consult with the owner or lawful occupier of the Property about the Acceptance Letter and prospecting activities to be conducted by Ember Tetra in the event the prospecting right is granted to Ember Tetra.

6. Upon entering the Property, we met with a gentleman who informed us that he was the manager of the Property. We introduced ourselves to him and explained to him the reason for entering the Property and requested to meet with the owner of the Property. The gentleman advised us that, as the manager of the Property, he was authorised to communicate with us. He refused to give us his name or provide us with any documentation confirming his authority to communicate with us. We furnished him with the Public Participation Documents (being the Acceptance Letter and a registration form and comment for the public participation process Form).

7. We requested the gentleman to either acknowledge receipt of the Public Participation Document in writing or indicate whether he was in favour or against the application for a prospecting right by Ember Tetra. He refused to do so and advised us the attorneys acting on behalf of the owner of the Property will contact us and provide us with feedback about the position of the owner of the Property on our application. He indicated that there were a number of applicants for prospecting rights for a variety of minerals over the Property who have been going to the Property for a consultation and they were also advised that the attorneys of the owner of the Property will reach out to them. We requested the gentleman to give us the contact details of the attorneys of the owner of the Property to enable us to reach out to them in the event they forget to communicate with us. The gentleman refused to give us the relevant contact details and indicated that the attorneys of the owner of the Property will communicate with us.

8. I confirm that the attorneys of the owner of the Property have not communicated with us.

_____

THABANG FRANS SHOMANG

THUS signed and sworn to at _____before me on this the ____ day of _____, the deponent having acknowledged that he knows and understands the contents of this affidavit, that he has no objection to taking the prescribed oath, which oath he considers binding on his conscience.

_____

COMMISSIONER OF OATHS

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Thursday, 24 September 2020 10:55
To: Hajira Kara (hajira.kara@gmail.com)
Subject: Ember Tetra Trading - Consultation letter - Vaalhoek - NC12571PR & Acceptance letter
Attachments: Ember Tetra Trading - Consultation letter - Vaalhoek - NC12571PR.pdf; Ember Tetra Trading - Acceptance letter - Vaalhoek - NC12571PR.pdf

Good day Bibi

See attached the acceptance letter and consultation letter for Ember Tetra Trading - Vaalhoek - NC12571PR

The applicant can just make more copies for all the landowners and neighbours to be signed and return to us before 15 October 2020

Kind regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Ember Tetra Trading - Consultation letter - Vaalhoek - NC12571PR Ember Tetra Trading - Acceptance letter - Vaalhoek - NC12571PR

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

P O Box 6499
Flamwood
2572
Fax: 018 011 3760
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

22 September 2020

To whom it may concern

CONSULTATION WITH INTERESTED AND AFFECTED PARTIES WITH REGARD TO AN APPLICATION FOR A PROSPECTING RIGHT IN TERMS SECTION 16 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) AND NEMA, EIA 2014 OVER: THE FARM VAALHOEK 469, MAGISTERIAL DISTRICT OF GORDONIA.

You are herewith informed that **Ember Tetra Trading (Pty) Ltd.** has submitted an application in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and NEMA, EIA 2014, to the Regional Manager: Mineral Regulation, Northern Cape Region in respect of the prospecting of **Manganese Ore, Rare Earths, Vanadium, Tin Ore & Zink Ore,** in the magisterial district of Gordonia.

Ember Tetra Trading (Pty) Ltd. is in the process of compiling the Scoping Report, which needs to be submitted by at the Regional Office of DMR. An Environmental Management Programme (EMP) & Environmental Impact Report (EIA) need to be submitted at the Regional Office of DMR after acceptance of the Scoping Report. The documents will be available on request for I&AP's for comments. See attached the Sketch plan & Environmental Authorisation.

In terms of Section 10 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and in terms of Regulation 39(1) of the regulations published in the Government Notice No. R10328 (of 4 December 2014) under Chapter 6 of the NEMA, EIA 2014, the landowner or legal occupier of the land, as well as any other interested party must be notified and consulted with in terms of the proposed project.

Ember Tetra Trading (Pty) Ltd. deems it necessary to consult with inter alia yourself / your company/ your organization, and you are therefore kindly requested to comment very clearly and unambiguously with regards to the proposed prospecting project. You are requested to submit in writing, any interest/ objection and/or comments you may have and return it to the appointed consultants (**Reference no. NC30/5/1/1/2/12571PR**) within 30 days from the date of receipt of this letter. If no correspondence is received from you within the mentioned time frame, the applicant shall accept that you have no objection with the proposed prospecting activities.

Please call me if any further information is needed.

Your co-operation will be appreciated.

Yours faithfully
P.P.
Daan Erasmus
DERA Environmental Consultants

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS OF THE PROPOSED PROSPECTING RIGHT ON THE FARM VAALHOEK 469, MAGISTERIAL DISTRICT OF Gordonia.

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel. 018-468 5355
Fax: 018-011 3760
Mobile: 082 895 3516
E-mail: daane@dera.co.za

PERSONAL INFORMATION:

Title/Titel:..... Initials/Voorletters: ..... First Name/Eerste naam:.....

Surname/Van.....

E-mail/E-pos.....

Telephone/Telefoon..... Fax/Faks.....

Organisation (if applicable)/Organisasie(indien van toepassing: .....

Capasity (member, etc.)/Kapasiteit (lid ens): .....

Landowner/Grondeienaar/Neighbour/Buurman/ Interested and/or affected party on the farm/ op die plaas.....

Postal Address/ Posadres .....

Town/City/Dorp/Stad: ..... Code/Kode: .....

COMMENT/OBJECTION:

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgenome projek?

2. Do you have any ground for objection towards the proposed project/Het u enige gronde tot beswaar ten opsigte van die bogenoemde projek?

YES/NO JA/NEE

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgenome projek 'n negatiewe inpak kan he op uself of die omgewing?

YES/NO JA/NEE

If "Yes", please descibe shortly/Indien 'JA', verduidelik asseblief kortliks.

Filled in on/Ingevul op..... day of /dag van..... (month)/(maand) 2020

Name and Surname/ Company
Naam en Van/Maatskappy

Signature/Handtekening

. . . . . .

mineral resources
& energy
Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag X 14, Springbok, 8240, Corner Van der Stel and Van riebeck Street, 1st Floor Hoplyn Centre, Springbok,8241
Tel: 053 807 1722 Fax: 053 832 5671 Email: Tshifhiwa.mukwevho@dmr.gov.za From: Mineral Regulation Enquiries: T Mukwevho

Ref: NC 30/5/1/1/2/12571 PR

Per Registered Mail

The Directors
Ember Tetra Trading (PTY) LTD
P.O Box 6499
Kleksdorp
2572
Fax: 018 4684015
E-mail: daane@dera.co.za

Sir/Madam

APPLICATION FOR A PROSPECTING RIGHT IN TERMS OF SECTION 16 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 AS AMENDED BY SECTION 12 OF ACT 49 OF 2008 AND ENVIRONMETAL AUTHORIZATION IN TERMS OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMENDED: VAALHOEK 469; A PORTION OF FARM 584; A PORTION OF ZWART BOOIS BERG SUID 677 SITUATED WITHIN THE ADMINISTRATIVE DISTRICT OF KENHARDT

APPLICANT: EMBER TETRA TRADING (PTY) LTD

1. This is to inform you that your application for a prospecting right in terms of section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) ("Act") as amended and the Environmental Authorization in line with NEMA Regulations for Mangase, Rare Earths, Tin, Vanadium, and Zinc. has been Accepted.

2. In terms of section **12 (d)** of the Act, you are directed to comply with the following instructions:

    a. Upload on to **SAMRAD** system and **Submit** the relevant environmental reports (Basic Assessment Report) required in terms of chapter 5 read with Regulation 19(1) of the National Environment Management Act, 1998.
    b. Notify and consult with the landowner, lawful occupier and any interested and affected party and include the result of the consultation in the environmental reports in line with Regulation 41(2) read with Section 24J of National Environment Management Act, 1998.
    c. Lodge an application in terms of National Water Act, 1998 (Act 36 of 1998) with the Department of Water Affairs with immediate effect.

3. Be advised that the Minister may having regard to the type of mineral concerned and the extent of the proposed prospecting project, direct the applicant to give effect to the objects of the section 2(d) of the Act. To comply with section 2(d), read together with 17(4) you are thus directed to submit the following documents on or before the 16th October 2020.

    a. Duly signed shareholders agreements with your empowerment partner in which provision **shall** be made for entrepreneurs, local community, and employees,
    b. Share certificates,
    c. Details relating to the equity by the BEE shareholders, and
    d. Any other agreement relating to the BEE shareholding including the voting pool agreement where applicable.

4. Further note that the acceptance of your application does not grant you the right to commence with prospecting activities. It only signifies that your application will be processed, evaluated and the Minister or his delegate will decide within 197 days from the date of lodgement of your application.
5. Your attention is drawn to the provisions of section 17(1)(e) of the MPRDA, which provide that the minister may grant an application for a prospecting right if the application for a prospection right if the applicant is not in contravention of any relevant provision of this Act. Section 19(2) (f) places an obligation on the holder of prospecting right to pay the prescribed fees as per regulations 76 of the MPRDA.
6. You are therefore reminded to ensure that payment of all prospecting fees for all the prospecting rights that you hold are up to date falling which this may have a negative impact on the outcome of your current application.

Yours faithfully

REGIONAL MANAGER:
MINERAL REGULATION
NORTHERN CAPE REGION
DATE: 04th September 2020

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 14, Springbok, 8240, Cnr Van der Stel & Van Riebeeck, Hopley Centre Building, Springbok, 8240
Tel: 027 712 8163 Fax: 027 712 1959 Email: Deidre.Karsten@dmr.gov.za, Ref: 30/5/1/2/3/2/1(12571) PR
From: Mineral Regulation **Enquiries:** Deidre Karsten

Ember Tetra Trading (Pty) Ltd
P O Box 2898
KLERKSDORP
2570

Attention: Daan Erasmus **email:** daane@dera.co.za

ACKNOWLEDGEMENT OF A SCOPING REPORT REGARDING THE PROSPECTING RIGHT APPLICATION FOR EMBER TETRA TRADING (PTY) LTD ON THE VAALHOEK 469; A PORTION OF FARM 584 AND A PORTION OF ZWART BOOIS BERG SUID NO 677, IN THE MAGISTERIAL DISTRICT OF KENHARDT

This letter serves as an acknowledgement of receipt of the scoping report in respect of the above mentioned property for the proposed prospecting activities. The Department will, within 43 days of receipt of this scoping report, peruse it, accept with or without conditions, and advise to proceed or continue with the tasks contemplated in the plan of study for environmental impact assessment or refuse if it does not comply with the required standard. In a case whereby any further information is required, you will be notified.

Yours faithfully

.....

REGIONAL MANAGER: MINERAL REGULATION
NORTHERN CAPE REGION
DATE....12/11/2020.....

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Wednesday, 23 September 2020 15:12
To: '0544616401@faxsend.co.za'
Subject: Consultation letter - Ember Tetra Trading - Prospecting
Attachments: Consultation letter - Ember Tetra Trading - Prospecting.pdf

Good day

Please see attached the consultation letter for a proposed prospecting right application in the district of Gordonia.

It will be highly appreciated if you can complete the consultation letter and return to dera.office@dera.co.za

Kind regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Consultation letter - Ember Tetra Trading - Prospecting

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

P O Box 6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

20 May 2020

Kai!Garib Local Municipality

Attention: LED Manager: Ms G. Cloete
Fax: 054 461 6401

RE: CONSULTATION WITH INTERESTED & AFFECTED PARTIES

It is hereby confirmed that Ember Tetra Trading (Pty) Ltd has applied for a Prospecting right on the farm Vaalhoek 469, situated in the magisterial district of Gordonia.

The Department of Mineral Resources have requested that the Kai!Garib District Municipality must be informed about the proposed prospecting right application.

Please find attached the consultation letter with the information regarding the proposed prospecting right application.

It would be highly appreciated if you could return the attached consultation letter to Dera Environmental Consultants at Fax: 018 011 3760 or dera.office@dera.co.za

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

P.P.

Daan Erasmus
DERA Environmental Consultants

P O Box 6499
Flamwood
2572
Fax: 018 011 3760
Mobile: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

20 May 2020

To whom it may concern

CONSULTATION WITH INTERESTED AND AFFECTED PARTIES WITH REGARD TO AN APPLICATION FOR A PROSPECTING RIGHT IN TERMS SECTION 16 OF THE MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002) AND NEMA, EIA 2014 OVER: THE FARM VAALHOEK 469, MAGISTERIAL DISTRICT OF GORDONIA.

You are herewith informed that **Ember Tetra Trading (Pty) Ltd.** has submitted an application in terms of Section 16 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and NEMA, EIA 2014, to the Regional Manager: Mineral Regulation, Northern Cape Region in respect of the prospecting of **Manganese Ore, Rare Earths, Vanadium, Tin Ore & Zink Ore,** in the magisterial district of Gordonia.

Ember Tetra Trading (Pty) Ltd. is in the process of compiling the Scoping Report, which needs to be submitted by at the Regional Office of DMR. An Environmental Management Programme (EMP) & Environmental Impact Report (EIA) need to be submitted at the Regional Office of DMR after acceptance of the Scoping Report. The documents will be available on request for I&AP's for comments. See attached the Sketch plan & Environmental Authorisation.

In terms of Section 10 of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002), and in terms of Regulation 39(1) of the regulations published in the Government Notice No. R10328 (of 4 December 2014) under Chapter 6 of the NEMA, EIA 2014, the landowner or legal occupier of the land, as well as any other interested party must be notified and consulted with in terms of the proposed project.

Ember Tetra Trading (Pty) Ltd. deems it necessary to consult with inter alia yourself / your company/ your organization, and you are therefore kindly requested to comment very clearly and unambiguously with regards to the proposed prospecting project. You are requested to submit in writing, any interest/ objection and/or comments you may have and return it to the appointed consultants (**Reference no. NC30/5/1/1/2/12571PR**) within 30 days from the date of receipt of this letter. If no correspondence is received from you within the mentioned time frame, the applicant shall accept that you have no objection with the proposed prospecting activities.

Please call me if any further information is needed.

Your co-operation will be appreciated.

Yours faithfully

Daan Erasmus
DERA Environmental Consultants

REGISTRATION FORM AND COMMENT FOR THE PUBLIC PARTICIPATION PROCESS OF THE PROPOSED PROSPECTING RIGHT ON THE FARM VAALHOEK 469, MAGISTERIAL DISTRICT OF Gordonia.

Daan Erasmus
P.O. Box 6499
KLERKSDORP
2572

Tel. 018-468 5355
Fax: 018-011 3760
Mobile: 082 895 3516
E-mail: daane@dera.co.za

PERSONAL INFORMATION:

Title/Titel:..... Initials/Voorletters: ..... First Name/Eerste naam:.....

Surname/Van.....

E-mail/E-pos.....

Telephone/Telefoon..... Fax/Faks.....

Organisation (if applicable)/Organisasie(indien van toepassing: .....

Capasity (member, etc.)/Kapasiteit (lid ens): .....

Landowner/Grondeienaar/Neighbour/Buurman/ Interested and/or affected party on the farm/ op die plaas.....

Postal Address/ Posadres .....

Town/City/Dorp/Stad: ..... Code/Kode: .....

COMMENT/OBJECTION:

1. What is the nature of your interest in the proposed project/Wat is u belang in die voorgenome projek?

2. Do you have any ground for objection towards the proposed project/Het u enige gronde tot beswaar ten opsigte van die bogenoemde projek?

YES/NO JA/NEE

If "Yes", please list shortly/Indien 'JA', lys asseblief kortliks.

3. Do you foresee that this activity will have a negative impact on yourself or the environment/Voorsien u dat die voorgenome projek 'n negatiewe inpak kan he op uself of die omgewing?

YES/NO JA/NEE

If "Yes", please descibe shortly/Indien 'JA', verduidelik asseblief kortliks.

Filled in on/Ingevul op..... day of /dag van..... (month)/(maand) 2020

Name and Surname/ Company
Naam en Van/Maatskappy

Signature/Handtekening

. . . . . .

Gerda

From: Gerda <dera.office@dera.co.za>
Sent: Wednesday, 23 September 2020 15:14
To: 'ruwayda.baulackey@drdlr.gov.za'
Subject: Verification of land claims - Vaalhoek 469
Attachments: Verification of land claims - Vaalhoek 469.pdf

Good day Ruwayda

See attached our verification of land claims on the farm Vaalhoek 469 in the Gordonia district.

Kind regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Verification of land claims - Vaalhoek 469

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

P O Box 5499
Flamwood
2572
Tel:. 018-468 5355
Fax: 018-011 3760
Cell. 082 895 3516
E-mail:dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

20 May 2020

Department of Land Affairs & Rural Development

Attention: Ms. Ruwayda Baulackey
E-mail: ruwayda.baulackey@drdlr.gov.za

Re: Verification of Land Claims

We are Environmental Consultants situated in Klerksdorp and has applied on behalf of Ember Tetra Trading (Pty) Ltd. for a Prospecting Right on the following farm in the Gordonia district.

- **The farm Vaalhoek 469,**
- **Kai!Garib Local Municipality**

Could you please be so kind to verify if there are any land claims over the farms as mentioned above?

It would be highly appreciated if you could help us in this matter as soon as possible.

Please feel free to contact the office of Dera Environmental Consultants or Mr. Erasmus on his cell: 082 895 3516 for any further information.

Yours truly.

p.p. ES.

Daan Erasmus

Fax Transmission

Attention To:-	From:-
Name: 0544616401	**Name: Gerda**
Fax: 0544616401	**Company: The Virtual Group**
	Telephone:
Date: 2020-09-24	**Fax:**
Time: 11:19:32 AM	**Pages: 4**

RE: Consultation letter - Ember Tetra Trading (Pty) Ltd - Prospecting

Comments/Notes:

Good day

Please find attached the consultation letter for a proposed Prospecting Right application of Ember Tetra Trading (Pty) Ltd in the district of Kenhardt

Kind regards.

Gerda Els
Cell: 083 225 1593

Daan Erasmus
Dera Omgewingskonsultante (Pty) Ltd.
Reg no: 2014/051013/07
P.O. Box 6499, Flamwood, 2572
VAT no: 4590284073
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516
e-mail: dera.office@dera.co.za or daane@dera.co.za

Your message is ready to be sent with the following file or link attachments:

Consultation letter - Ember Tetra Trading (Pty) Ltd - Prospecting

SITE NOTICE

APPLICATION FOR AN ENVIRONMENTAL AUTHORIZATION FOR THE PROPOSED ACTIVITIES.

Notice is given for the following application:

1) Environmental authorization application for prospecting.

- **Proponent:** The applicant is Ember Tetra Trading (Pty) Ltd.
- **Ref. no:** NC30/5/1/1/2/12571PR
- **Property description:** The proposed prospecting area is over the farm Vaalhoek 469, in the district of Gordonia. The total extent of the mining area is 2032.2788 hectares.

(21 SG digital codes: C03100000000046900000

Location: The property is situated ±19 km east from Kakamas.

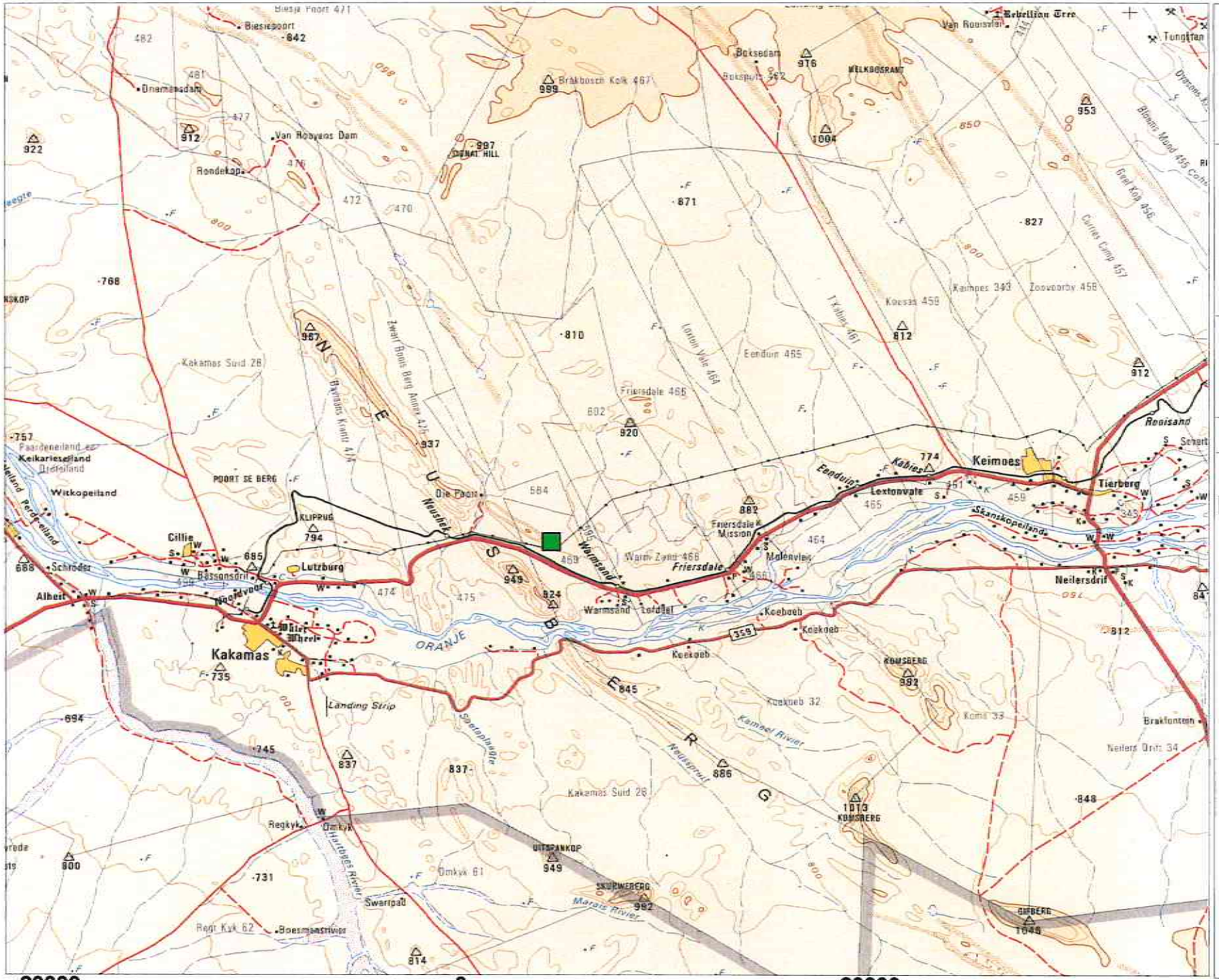
- **Project description:** The purpose of the application is to obtain the required authorisation from the Department to successfully: undertake Geological surveys, drilling & bulk sampling.
- **Process of Scoping is followed**
- **Activity applied for:** the following activities as listed in terms of NEMA (Act No. 107 of 1998) as amended and EIA Regulations, 2014 was applied for under Activity 19, (Listing Notice 2)GNR325
  Activity 20 (Listing Notice 1) GNR327
  Activity 27 (Listing Notice 1) GNR327
- **Minerals applied for:** Manganese Ore, Rare Earths, Vanadium, Tin Ore & Zinc ore
- **Date submitted:** 5 March 2020
- **Stakeholder involvement:** Stakeholders are invited to register as interested and affected parties and to participate in the application process by identifying issues of concern and suggestions for consideration in the Scoping Report and can contact Dera Environmental Consultants for any further information. Please submit your written comments by mail, fax or e-mail in this 30 day of this notice to:

Mr. Daan Erasmus of DERA Environmental Consultants

PO Box 6499
Flamwood
2572

E-mail: daane@dera.co.za
Tel: 018 468 5355
Fax: 018 011 3760
Cell: 082 895 3516;

- Date of advertisement: 25 September 2020.



APPENDIX 1A

LOCALITY MAP

Co-ordinates:

WGS 84/WGS 84

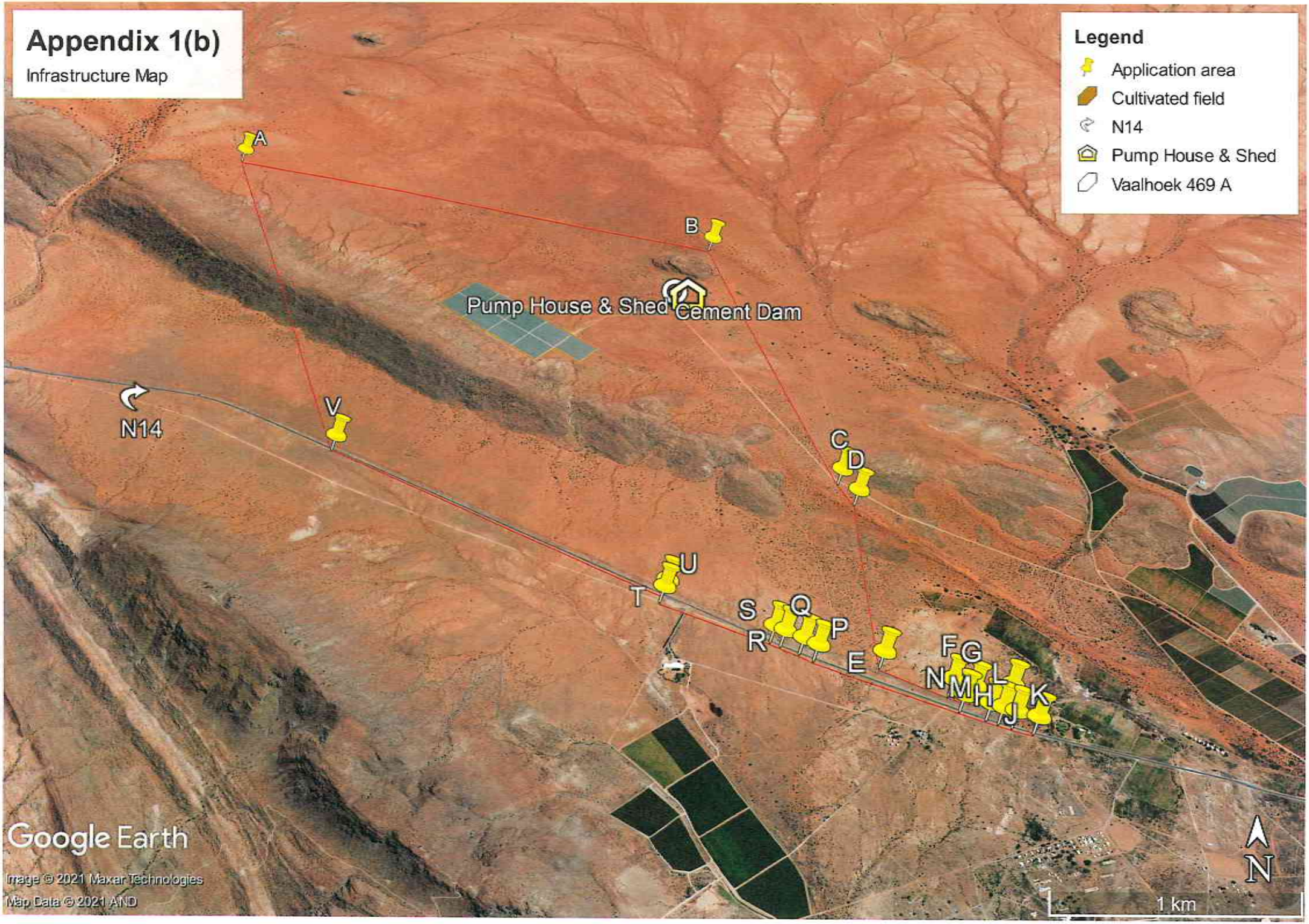
N
W E
S

Scale 1:250000

Legent:

- Proposed Prospecting Area
- Tar Roads
- Canal
- Secondary roads
- Houses/Farm yars/ Small holdings
- Mining areas

20000 0 20000 40000 Meters


Appendix 1(b)
Infrastructure Map
Legend
Application area
Cultivated field
N14
Pump House & Shed
Vaalhoek 469 A
A
B
Pump House & Shed
Cement Dam
N14
V
C
D
U
T
S
Q
P
R
E
F
G
N
M
H
L
J
K
Google Earth
Image © 2021 Maxar Technologies
Map Data © 2021 AND
N
1 km

APPENDIX 3

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION OR FOR A PART TWO AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

EIA Reference number: NC30/5/1/1/2/12571PR

Project name: Ember Tetra Trading (Pty) Ltd.

Project title: Vaalhoek 469

Date screening report generated: 04/11/2020 20:56:37

Applicant: Ember Tetra Trading (Pty) Ltd.

Compiler: DERA

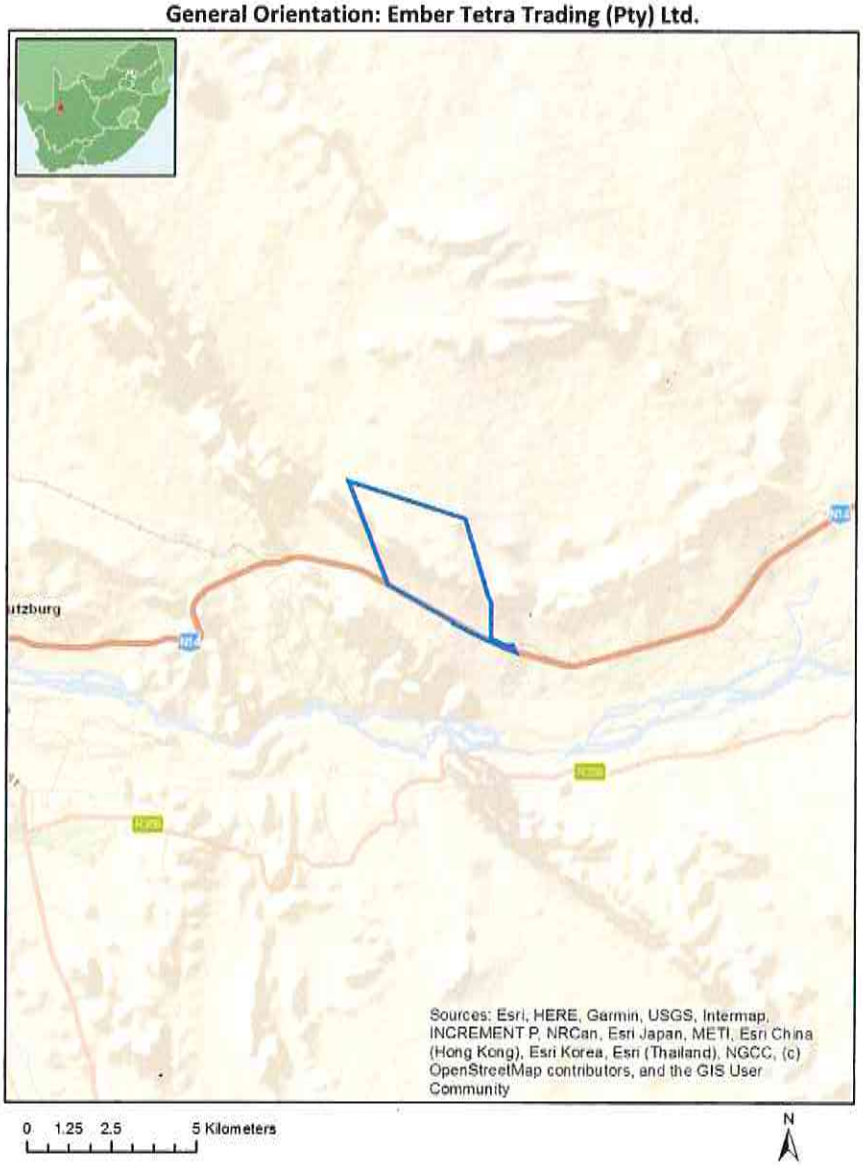
Compiler signature: .....

Table of Contents

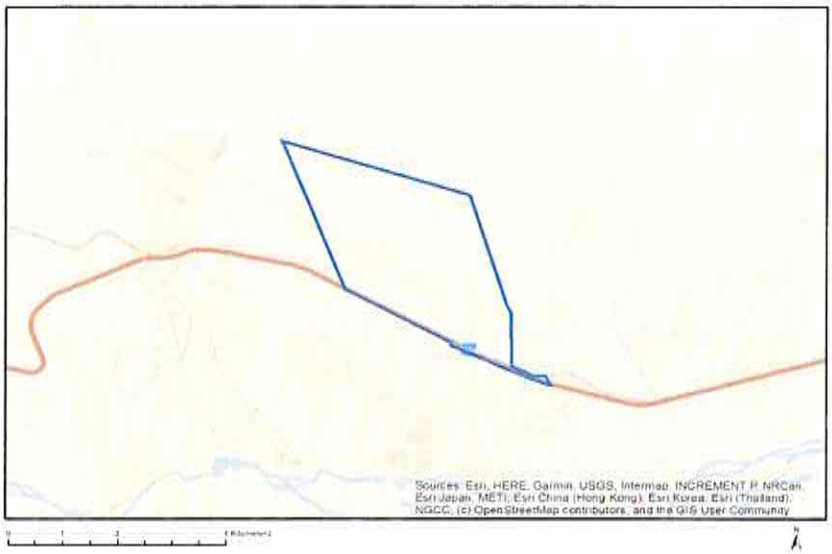
Proposed Project Location

Orientation map 1: General location

General Orientation: Ember Tetra Trading (Pty) Ltd.



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	VAAL HOEK	469	0	28°43'46.92S	20°44'25.06E	Farm
2	LOFDEEL	468	0	28°44'28.15S	20°45'58.97E	Farm
3		584	0	28°42'40.69S	20°43'1.92E	Farm
4	ZWART BOOIS BERG SUID	677	0	28°45'4.22S	20°42'36.12E	Farm
5	ZWART BOOIS BERG SUID	652	0	28°43'56.14S	20°42'58.28E	Farm
6	WARMSAND	647	0	28°45'8.43S	20°46'4.74E	Farm
7		584	1	28°43'46.08S	20°43'10.22E	Farm Portion
8	ZWART BOOIS BERG ANNEX	475	0	28°43'51.28S	20°42'30.46E	Farm Portion
9	VAAL HOEK	469	99	28°44'48.91S	20°45'4.59E	Farm Portion
10	WARMSAND	647	0	28°44'57.57S	20°45'50.52E	Farm Portion
11		584	0	28°42'43.65S	20°43'7.29E	Farm Portion
12		648	0	28°44'29.1S	20°46'1.59E	Farm Portion
13	ZWART BOOIS BERG SUID	677	0	28°45'5.85S	20°42'45.64E	Farm Portion
14	VAAL HOEK	469	13	28°44'0.03S	20°44'36.67E	Farm Portion
15	ZWART BOOIS BERG SUID	652	3	28°43'56.94S	20°42'14.96E	Farm Portion

Development footprint[1] vertices:

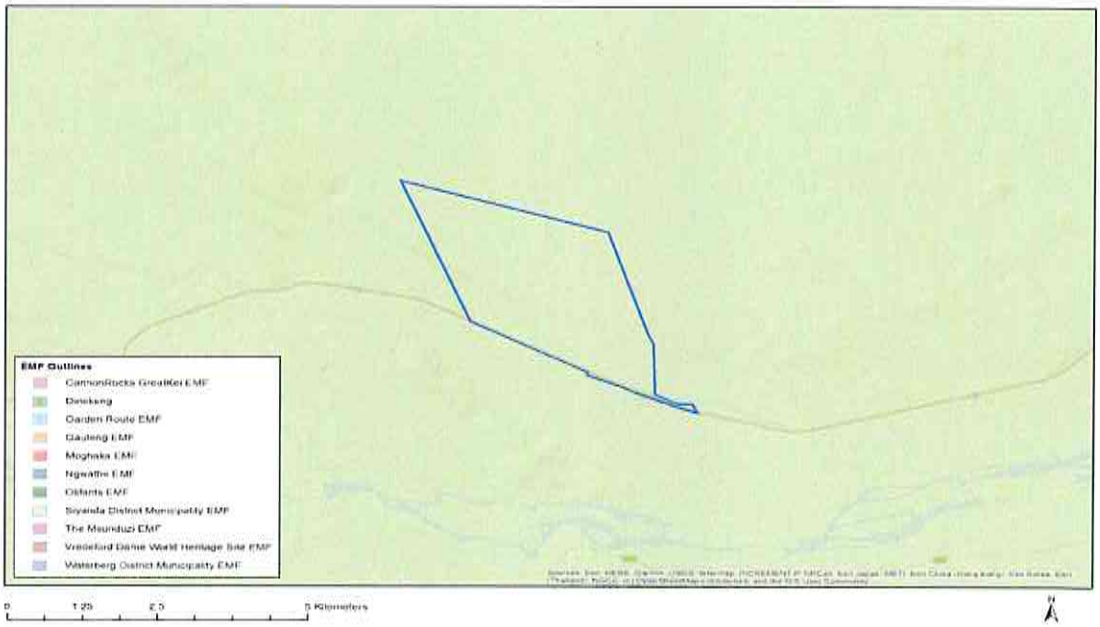
[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

No development footprint(s) specified.

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

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2231	Solar PV	Approved	5.4
2	12/12/20/2229	Solar PV	Approved	17.4
3	12/12/20/2518	Solar PV	Approved	24.5

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Siyanda District Municipality EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/SIYANDA_EMF_REPORT_2008.doc

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

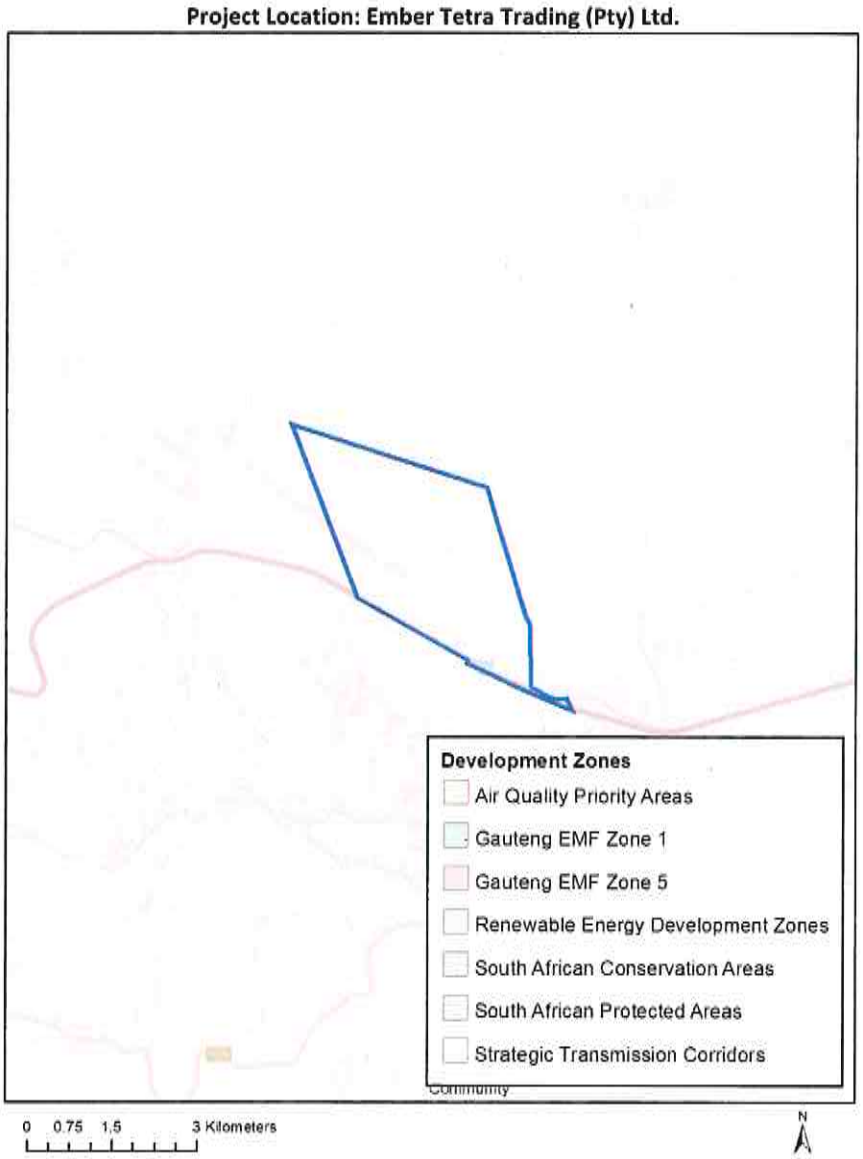
Mining|Prospecting rights|Mining - Prospecting rights.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic Transmission Corridor-Northern corridor	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR_350_of_13_April_2017.pdf

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme				X
Animal Species Theme			X	

Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme			X	
Civil Aviation Theme			X	
Defence Theme				X
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

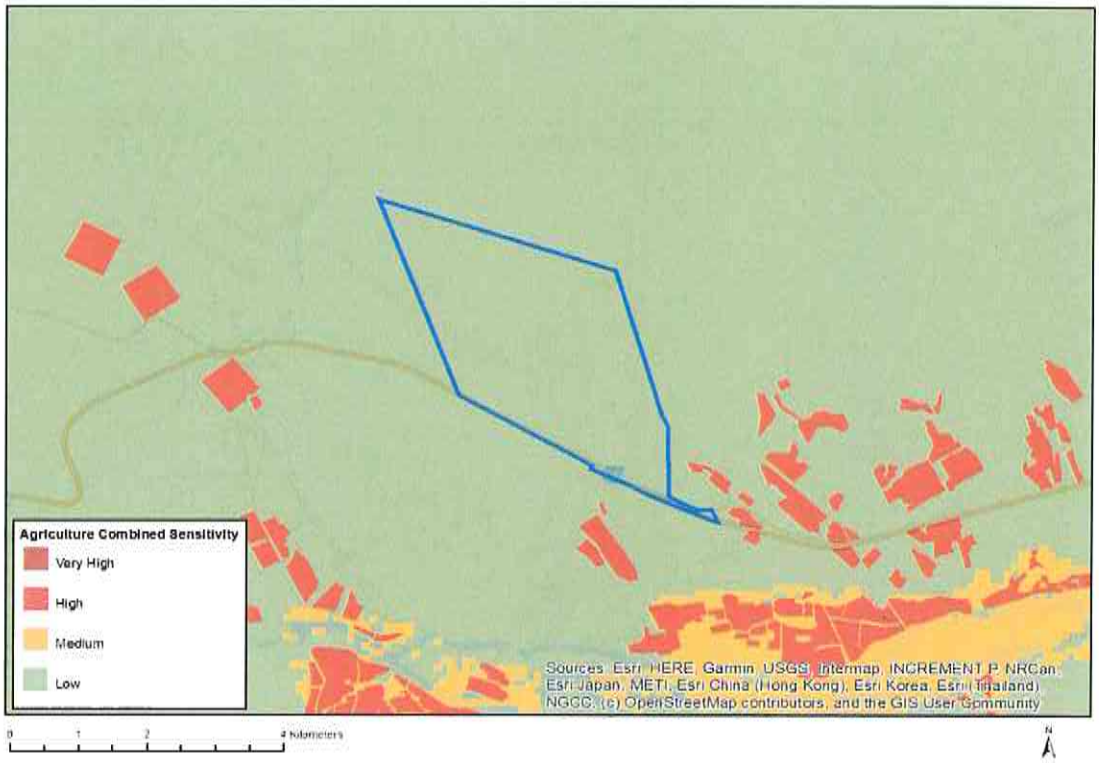
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
6	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf

7	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
9	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

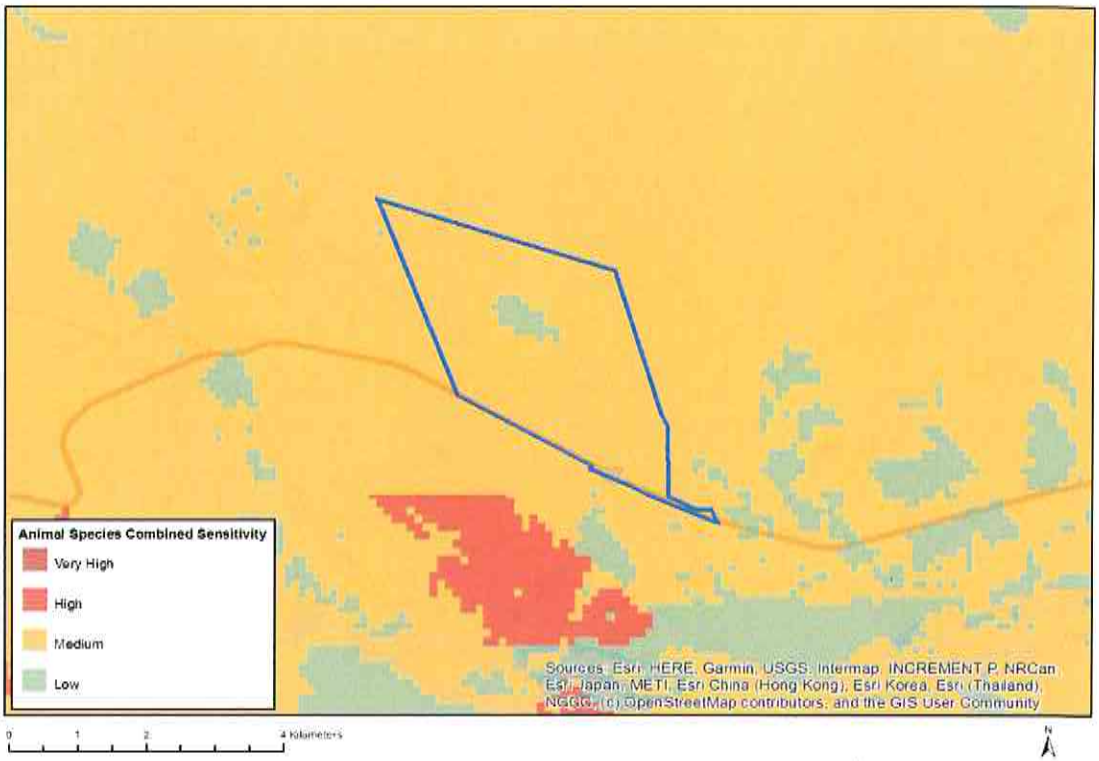


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY

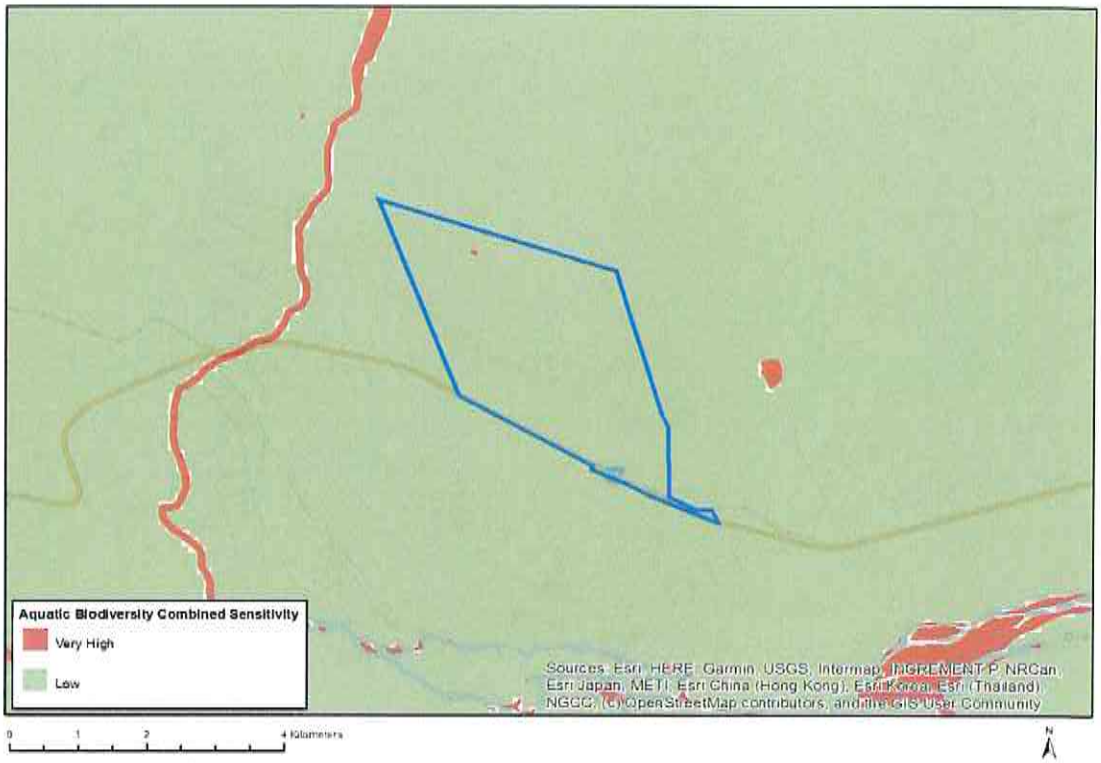


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Aves-Neotis ludwigii
Medium	Aves-Aquila verreauxii

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

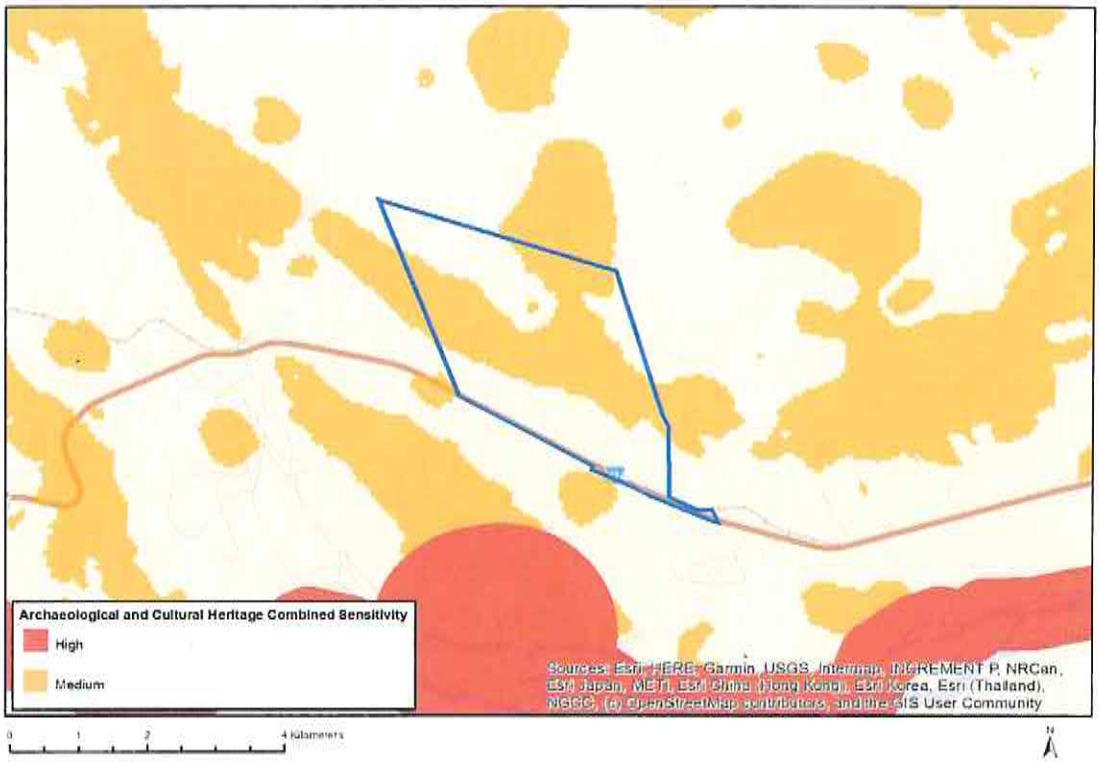


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands and Estuaries

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

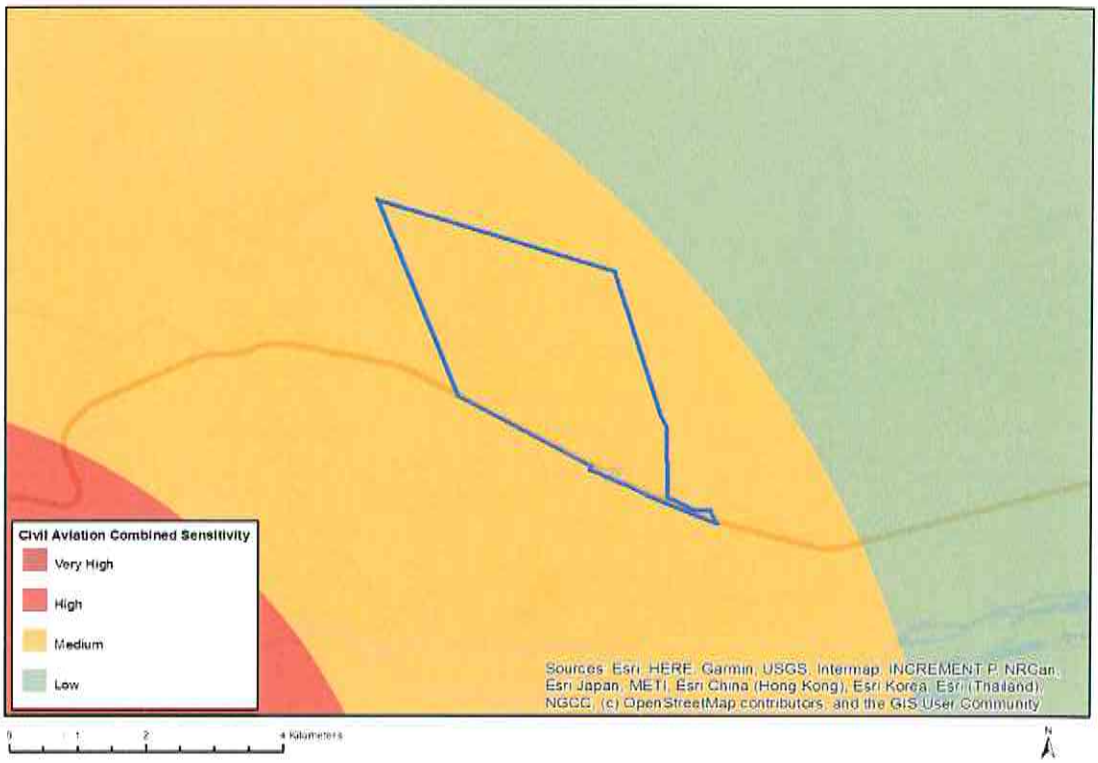


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Mountain or ridge

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

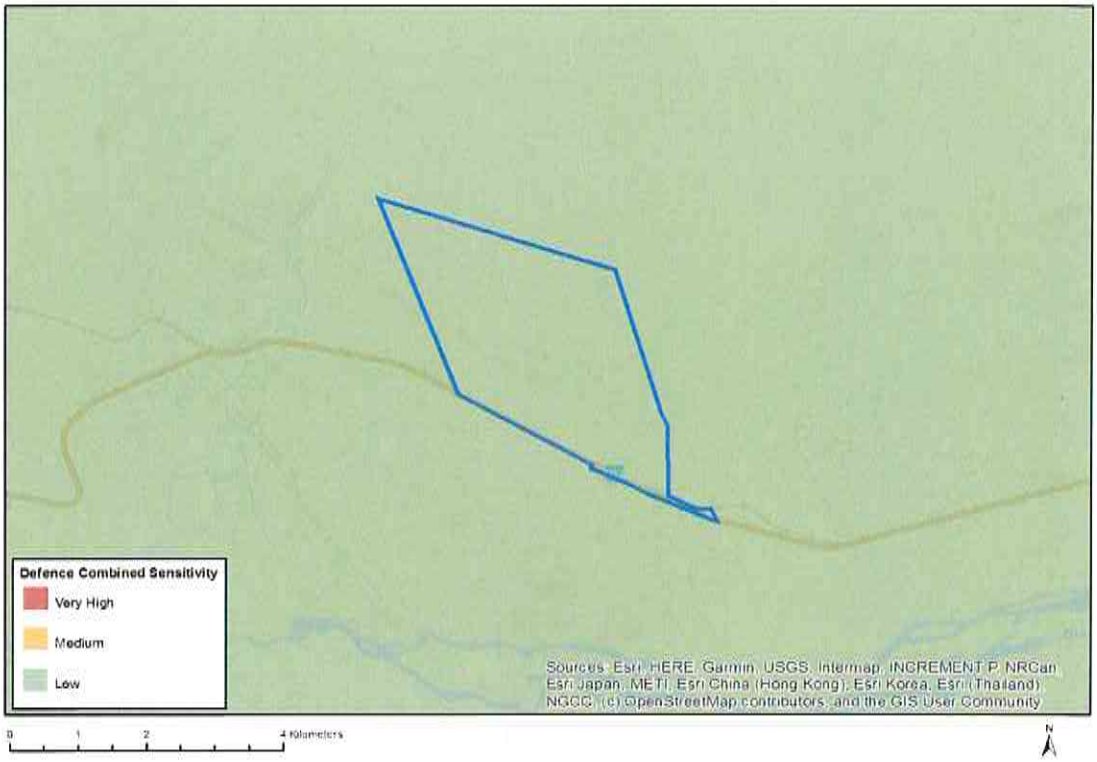


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY

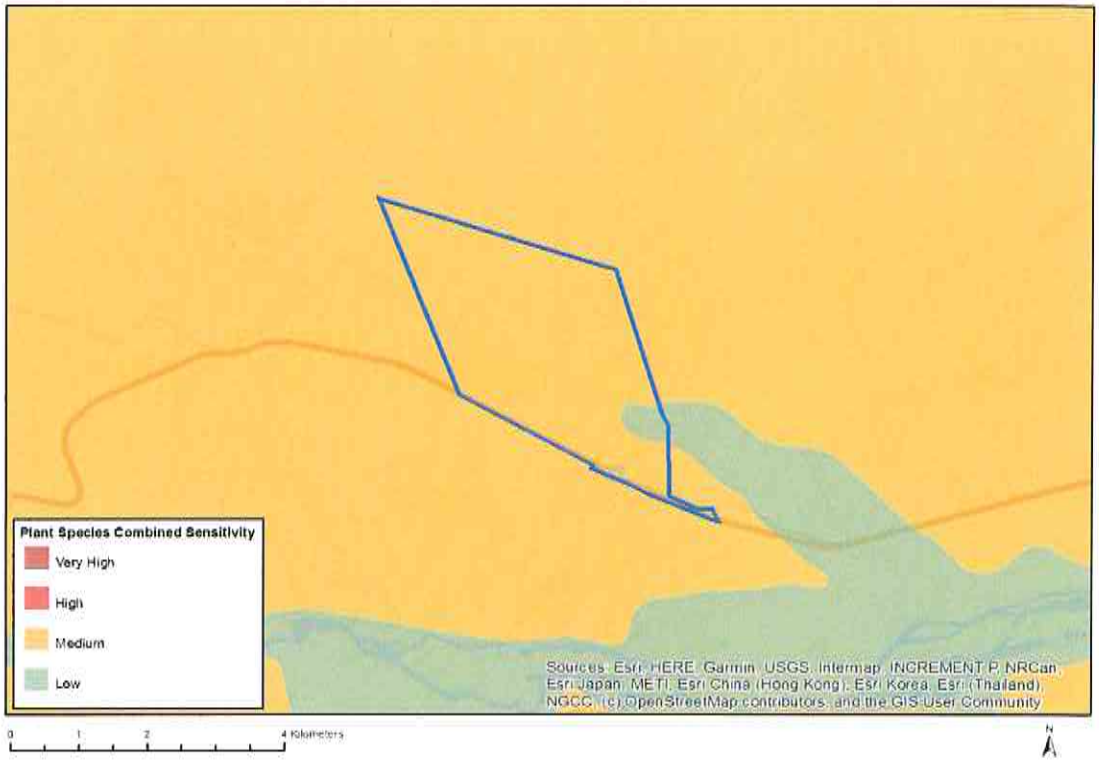


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

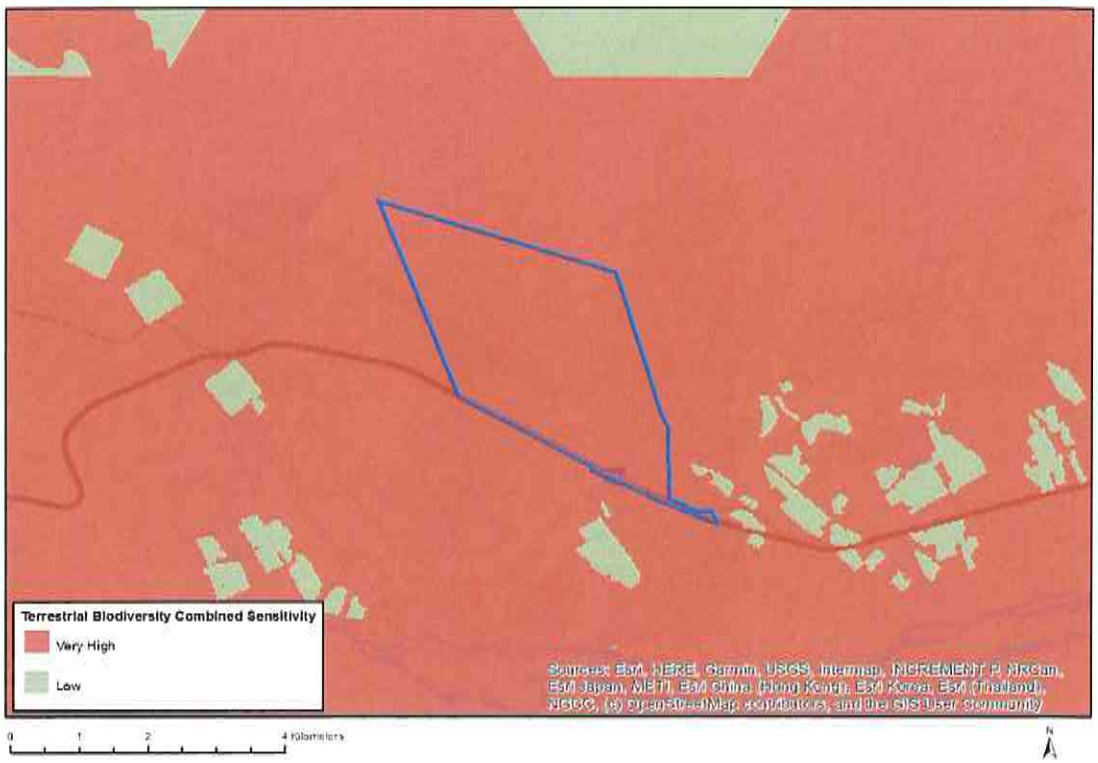


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Sensitive species 44

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Critical Biodiversity Area 1
Very High	Critical Biodiversity Area 2

04/11/2020

APPENDIX 4

CALCULATION OF THE QUANTUM

Applicant: **Ember Tetra Trading** Ref No.: **112571PR**
Evaluators: **DERA** **Aug-21**

No.	Description	Unit	A Quantity	B Master Rate	C Multiplication factor	D Weighting factor 1	E=A*B*C*D Amount (Rands)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	18	1	1	0
2 (A)	Demolition of steel buildings and structures	m2	0	256	1	1	0
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	377	1	1	0
3	Rehabilitation of access roads	m2	0	46	1	1	0
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	444	1	1	0
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	242	1	1	0
5	Demolition of housing and/or administration facilities	m2	0	512	1	1	0
6	Opencast rehabilitation including final voids and ramps	ha	0.3	268200	0.52	1	41839.2
7	Sealing of shafts adits and inclines	m3	0	137	1	1	0
8 (A)	Rehabilitation of overburden and spoils	ha	0	178800	1	1	0
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	222692	1	1	0
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	646804	1	1	0
9	Rehabilitation of subsided areas	ha	0	149718	1	1	0
10	General surface rehabilitation	ha	0.2	141640	1	1	28328
11	River diversions	ha	0	141640	1	1	0
12	Fencing	m	0	162	1	1	0
13	Water management	ha	0	53855	1	1	0
14	2 to 3 years of maintenance and aftercare	ha	0.5	18849	1	1	9424.5
15 (A)	Specialist study	Sum	0			1	0
15 (B)	Specialist study	Sum				1	0
					Sub Total 1		79591.7

1	Preliminary and General	9551.004	weighting factor 2 1	9551.004
2	Contingencies	7959.17		7959.17
			Subtotal 2	97101.87
			VAT (15%)	14565.28
			Grand Total	**111667**

P O Box6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

24 JULY 2021

Department Agriculture, Land Reform and Rural Development
02 Harrison Street
De Beers
Kimberley
8301

Attention: Thembisile Mabuza

RE: EMP/EIA for comments

Reference Number: NC30/5/1/1/2/12571PR

It is hereby confirmed that Ember Tetra Trading (Pty) Ltd has applied for a prospecting right over portion 13 of the farm Vaalhoek 469, situated in the district of Gordonia, Northern Cape Province.

The application was accepted by the Department of Mineral Resources and they have requested that the Department **Agriculture, Land Reform and Rural Development** (Northern Cape Regional Office) must be consulted about the proposed prospecting right. See attached the EMP/EIA for comments.

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516.

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

P.P. Erasmus

Daan Erasmus
DERA Environmental Consultants

THE Courier GUY

Worldwide Express
We would love to handle your package

HEAD OFFICE:
P O Box 532
Lanseria
1748

Sharecall No.:
0861 203 203
Fax:
086 643 3385
After Hours WhatsApp:
082 823 3254

TCG22332397

ACCOUNT NO. (Very Important)	CLIENT REFERENCE	DATE DD MM YY	PARCELS	MASS	VOLUME	ORIGIN	DEST.	OFFICE REFERENCE

Contact Name: Daan Erasmus
Contact Phone Number (Very Important): (018) 4685355
Company Name: JERA Environmental Consultants
Street Address: 27 Lewis Street
Wylkoppies
City: Klerksdorp **Country:** NW **Postal Code:** 2572

To (Contact Name): Thembisile Nabuzoa
Contact Phone Number (Very Important): (053) 807 2612
Company Name: Dept. of Agriculture, Land Reform & Rural Development.
Exact Street Address (We cannot deliver to Box Numbers): 02 Harrison Street
De Beers
City: Kimberley. **Country:** NC **Postal Code:** 8301

Special Instructions

NUMBER	DESCRIPTION OF CONTENTS	ACTUAL WEIGHT	DIMENSIONS (cm)	
			x x	
			x x	
			x x	

By virtue of the clients signature hereto, the client acknowledges having read, understood, and agreed to be bound by the standard conditions of carriage of The Courier Guy (Pty) Ltd., which standard conditions are annexed hereto.

INSURANCE Y ☐ N ☐
(ONLY DECLARE VALUE IF YES)
DECLARED VALUE R

SERVICES REQUIRED: Please tick appropriate box(es)

						CHARGES	R	c
1		SAME DAY EXPRESS	8		INTERNATIONAL DOCUMENTS			
2		LOCAL OVERNIGHT COURIER BAG	9		INTERNATIONAL PARCELS			
3		LOCAL SAME DAY COURIER BAG	10		INTERNATIONAL AIR FREIGHT			
4		SAME DAY ECONOMY	11		AFTER HOURS SERVICE			
5	X	OVERNIGHT COURIER	12		SATURDAY SERVICE			
6		DOMESTIC AIR FREIGHT	13		EARLY BIRD	VAT		
7		DOMESTIC ROAD FREIGHT	14		NATIONAL FLYER ECONOMY SERVICE	TOTAL		

CLIENT SIGNATURE (VERY IMPORTANT)

RECEIVED BY THE COURIER GUY (Pty) Ltd.:
DATE: 25 / 08 / 2021 TIME:

Confirmation that goods were received in good condition
RECEIVER'S SIGNATURE
DATE: / /
PRINT SURNAME AND INITIALS (VERY IMPORTANT)
TIME:

PLEASE PRINT - USE A BALL POINT PEN AND PRESS HARD (5 COPIES)

1st Copy: THE COURIER GUY (Pty) Ltd. COPY
2nd Copy: COPY VAT INVOICE
3rd Copy: PROOF OF DELIVERY
4th Copy: RECEIVERS COPY
5th Copy: SENDERS COPY

P O Box6499
Flamwood
2572
Tel: 018-468 5355
Fax: 018-011 3760
Cell: 082 895 3516
E-mail: dera.office@dera.co.za
daane@dera.co.za

DERA

Environmental Consultants

24 JULY 2021

Department of Water and Sanitation
28 Central Road
Beaconsfield
Kimberley
8300

Attention: Mr. Abe Abrahams

RE: EMP/EIA for comments

Reference Number: NC30/5/1/1/2/12571PR

It is hereby confirmed that Ember Tetra Trading (Pty) Ltd has applied for a prospecting right over Portion 13 of the farm Vaalhoek 469, situated in the district of Gordonia, Northern Cape Province.

The application was accepted by the Department of Mineral Resources and they have requested that the Department of Water and Sanitation (Northern Cape Regional Office) must be consulted about the proposed prospecting right. See attached the EMP/EIA for comments.

Should you have any questions regarding the above, please call Mr. Erasmus at 082 895 3516.

DERA Environmental Consultants can be contacted for any further enquiries.

Yours sincerely

P.P.

Daan Erasmus
DERA Environmental Consultants

THE Courier GUY

Worldwide Express
We would love to handle your package

HEAD OFFICE:
P O Box 592
Lanseria
1748

Shipreq# No.:
0861 203 203
Fax:
086 643 3385
After Hours WhatsApp:
082 823 3254

TCG22332398

ACCOUNT NO. (Very Important)	CLIENT REFERENCE	DATE DD MM YY	PARCELS	MASS	VOLUME	ORIGIN	DEST.	OFFICE REFERENCE

Contact Name: Dan Erasmus
Contact Phone Number (Very Important): (018) 4685385
Company Name: DEA Environmental Consultants
Street Address: 27 Lewis Street
Wilkoppies
City: Klerksdorp **Country:** NW **Postal Code:** 2572

To (Contact Name): Abe Abrahams
Contact Phone Number (Very Important): (053) 8837641
Company Name: Dept. of Water and Sanitation
Exact Street Address (We cannot deliver to Box Numbers): 28 Central Road
Beaconsfield
City: Kimberley **Country:** NC **Postal Code:** 8301

Special Instructions

NUMBER	DESCRIPTION OF CONTENTS	ACTUAL WEIGHT	DIMENSIONS (cm)	
			X X	
			X X	
			X X	

By virtue of the clients signature hereto, the client acknowledges having read, understood, and agreed to be bound by the standard conditions of carriage of The Courier Guy (Pty) Ltd., which standard conditions are annexed hereto.

INSURANCE Y ☐ N ☐
(ONLY DECLARE VALUE IF YES)
DECLARED VALUE R

		SERVICES REQUIRED: Please tick appropriate box(es)			CHARGES	R	c
1		SAME DAY EXPRESS	9	INTERNATIONAL DOCUMENTS			
2		LOCAL OVERNIGHT COURIER BAG	9	INTERNATIONAL PARCELS			
3		LOCAL SAME DAY COURIER BAG	10	INTERNATIONAL AIR FREIGHT			
4		SAME DAY ECONOMY	11	AFTER HOURS SERVICE			
5	X	OVERNIGHT COURIER	12	SATURDAY SERVICE			
6		DOMESTIC AIR FREIGHT	13	EARLY BIRD	VAT		
7		DOMESTIC ROAD FREIGHT	14	NATIONAL FLYER ECONOMY SERVICE	TOTAL		

CLIENT SIGNATURE (VERY IMPORTANT)

RECEIVED BY THE COURIER GUY (Pty) Ltd.:
DATE: 25 09 2021 TIME:

Confirmation that goods were received in good condition
RECEIVER'S SIGNATURE
PRINT SURNAME AND INITIALS (VERY IMPORTANT)
DATE: / /
TIME:

PLEASE PRINT - USE A BALL POINT PEN AND PRESS HARD (5 COPIES)

1st Copy: THE COURIER GUY (Pty) Ltd. COPY
2nd Copy: COPY VAT INVOICE
3rd Copy: PROOF OF DELIVERY
4th Copy: RECEIVERS COPY
5th Copy: SENDERS COPY