



**mineral resources**

Department:  
Mineral Resources  
**REPUBLIC OF SOUTH AFRICA**

## **SCOPING REPORT**

### **FOR LISTED ACTIVITIES ASSOCIATED WITH MINING RIGHT AND/OR BULK SAMPLING ACTIVITIES INCLUDING TRENCHING IN CASES OF ALLUVIAL DIAMOND PROSPECTING.**

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: GEJ RESOURCES (PTY) LTD ('GEJ')**

**TEL NO: 084 400 0096**

**FAX NO: 086 534 2076**

**POSTAL ADDRESS: 44 NORTHGATE OFFICE PARK, AUREOLE AVENUE, NORTH RIDING, 2162**

**PHYSICAL ADDRESS: 35 DUVENHAGE ROAD, POSTMASBURG, 8420**

**FILE REFERENCE NUMBER SAMRAD: (NC) 30/5/1/1/2/13159 PR**

## IMPORANT NOTICE

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

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

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

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

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

## OBJECTIVE OF THE SCOPING PROCESS

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

## SCOPING REPORT

### 2) Contact Person and correspondence address:

#### a) Details of:

##### i) The EAP who prepared the report:

Name of the Company: M and S Consulting (Pty) Ltd

Name of the Practitioner: Ms. T. Jooste

Tel No: 053 861 1765

Fax No: 086 636 0731

Cell No: 084 444 4474

E-Mail address: ms.consulting@vodamail.co.za // joostetanja@gmail.com

Physical Address: 36 William Street, Kestellhof, Kimberley, 8301

Postal Address: P.O. Box 2473, Kimberley, 8300

##### ii) Expertise of the EAP:

###### (1) The qualifications of the EAP:

(With evidence attached as Appendix 1)

###### - Professional registration of EAP:

Ms. Jooste is a registered EAP with the Environmental Assessment Practitioners Association of South Africa (EAPASA) (Reg. No. 2019/1983).

###### - The qualifications of the EAP:

- Fourteen years professional experience, in terms of Section 15(1) of the National Environmental Management Act, 1998 (Act No. 107 of 1998), Section 24H Registration Authority Regulations as published on 22 July 2016 under Government Gazette No. 40154 (849);
- Environmental Management Certificate; and
- BA in Environmental Management (UNISA).

###### (2) Summary of the EAP's past experience:

(Attach the EAP's curriculum vitae as Appendix 2)

Relevant past experiences in carrying out the Environmental Impact Assessment Procedures include Environmental Impact Assessments, Environmental Management Plans / Programmes / Reports, Performance Assessments, Rehabilitation Progress Assessments, Environmental Liability Assessments, Environmental Compliance Monitoring, Scoping Reports, etc.

**b) Description of the property:**

Farm Name:	<ul style="list-style-type: none"> <li>→ Remaining Extent of the Farm Bulls Run 164</li> <li>→ Remaining Extent of Portion 1 of the Farm Bulls Run 164</li> <li>→ Portion 2 of the Farm Bulls Run 164</li> <li>→ Remaining Extent of the Farm Hartfell 172</li> </ul> <p>The properties will be referred to as the 'PR Area' in this document.</p>
Application area (Ha)	5 504.7223 Ha
Magisterial district:	Hay
Distance and direction from nearest town	<p>The PR Area is situated approximately 30km north-west of Niekerkshoop and approximately 55km south-east of Groblershoop in the Northern Cape Province.</p> <p>Access to the site is via a secondary road turning from the R64 between Griekwastad and Groblershoop.</p>
21 digit Surveyor General Code for each farm portion	<p>C0310000000016400000</p> <p>C0310000000016400001</p> <p>C0310000000016400002</p> <p>C0310000000017200000</p>

**c) Locality Map:**

(show nearest town, scale not smaller than 1:250 000 attached as Appendix 3)

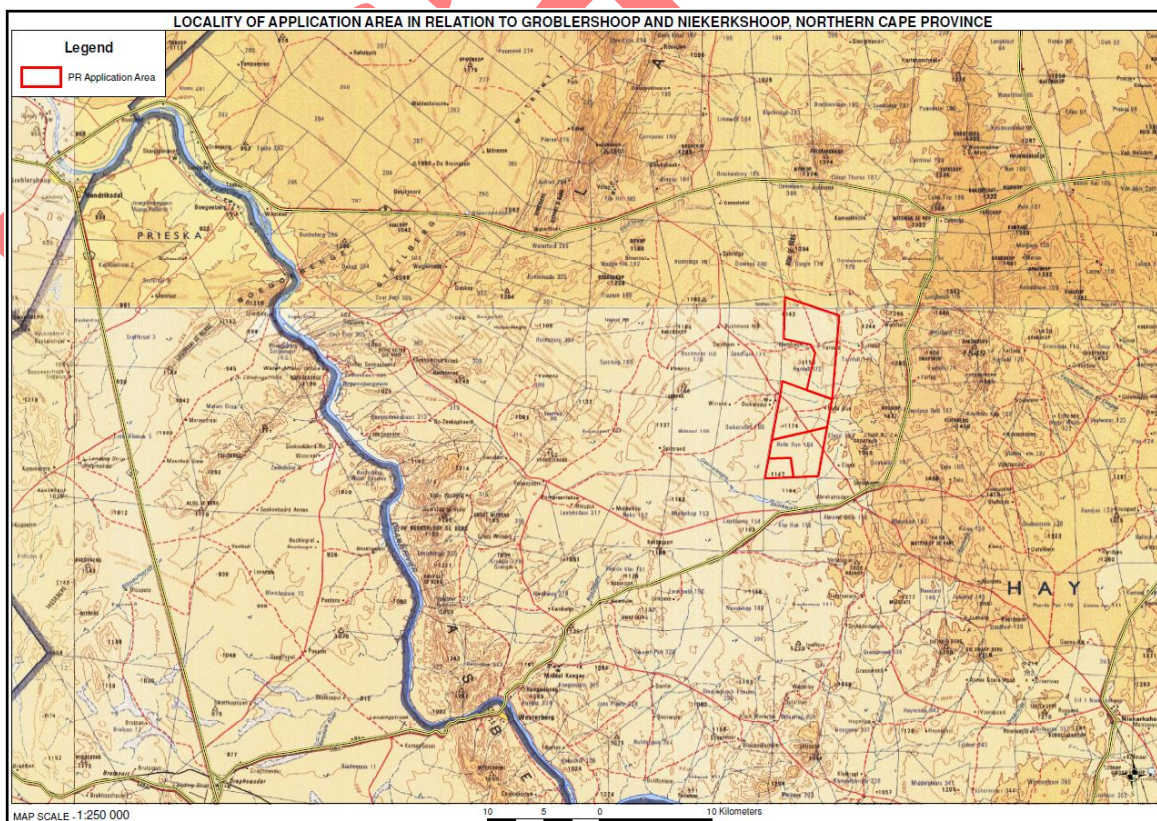


Figure 1 – Locality Map

**d) Description of the scope of the proposed overall activity:**

**i) Listed and specified activities:**

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

A final Site Plan cannot be provided in this early stage of the application process as the locality of the proposed boreholes and trenches is dependent on the results of the following:

- Reconnaissance visit;
- Desktop study; and
- Geological mapping

We do; however; insert below a Conceptual Site Plan indicating proposed localities of boreholes and trenches as well as all existing infrastructures and sensitive environmental features (including relevant buffer zones around these) to assist with planning when the results of the abovementioned phases have been obtained.

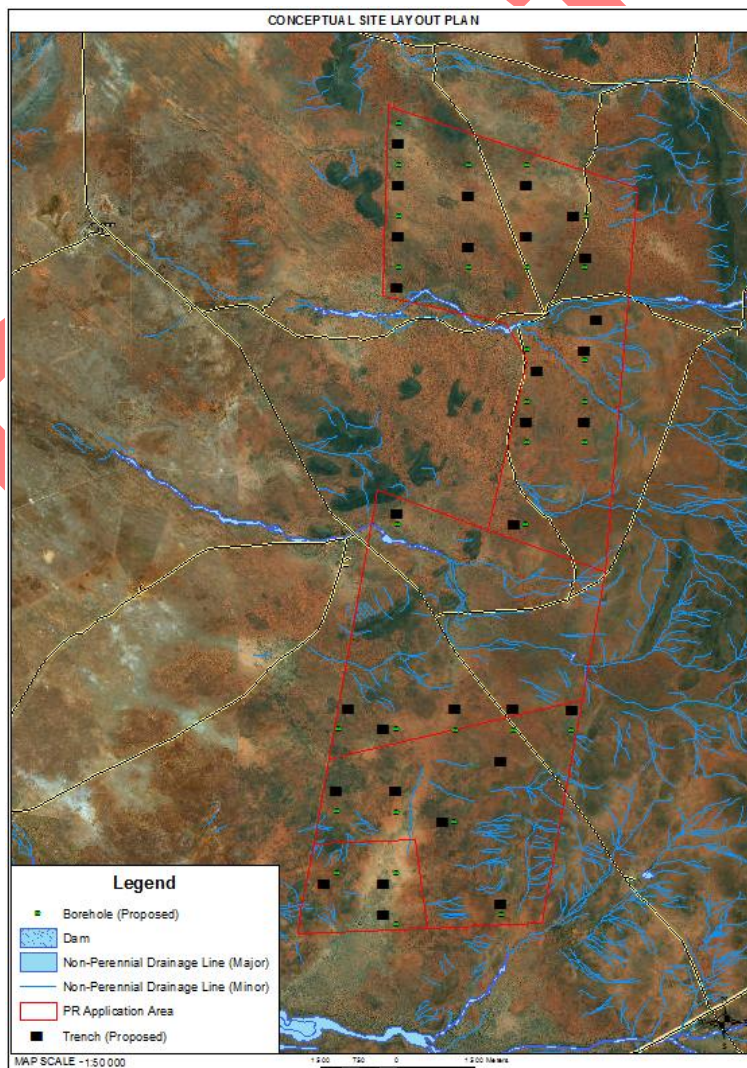


Figure 2 – Conceptual site layout plan

Scoping Report – GEJ Resources (Pty) Ltd

<b>NAME OF ACTIVITY</b> (E.g. For prospecting – drill site, site camp, ablution facility, accommodation, equipment storage, sample storage, site office, access route etc... etc... etc... E.g. for mining, excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc... etc... etc...)		<b>Aerial extent of the Activity Ha or m<sup>2</sup></b>	<b>LISTED ACTIVITY</b> (Mark with an X where applicable or affected).	<b>APPLICABLE LISTING NOTICE</b> (GNR 983, GNR 984 OR GNR 985)	<b>WASTE MANAGEMENT AUTHORISATION</b> (Indicate whether an authorisation is required in terms of the Waste Management Act.) (Mark with an X.)
<b>1</b>	<b>Blasting:</b> The tons of explosives consumed per month depend completely on the number of blasts that GEJ will conduct.  The size of the blasts will be directly affected by the geology of the deposit.	Various	X	MPRDA: Section 16 MPRDA: Section 20 NEMA: GNR327: Activity 20 NEMA: GNR327: Activity 27 NEMA: GNR327: Activity 30 NEMA: GNR325: Activity 15 NEMA: GNR325: Activity 19 NEMWA: GNR633: Activity 15 NWA: Section 21 NWA: GNR704	X
<b>2</b>	<b>Boreholes:</b> 30 x boreholes with a 10m x 10m surface disturbance each.	0 x 10m x 10m = 0.3Ha	X	MPRDA: Section 16 NEMA: GNR327: Activity 19 NEMA: GNR327: Activity 20 NEMA: GNR327: Activity 27 NEMA: GNR327: Activity 30	N/A
<b>3</b>	<b>Chemical toilets:</b> Mobile chemical toilets shall be utilized.	2m x 3m =6m <sup>2</sup> each		MPRDA: Section 16	N/A
<b>4</b>	<b>Diesel tanks:</b> It is anticipated that the operation will utilize 1 x	10m x 20m = 200m <sup>2</sup>	X	MPRDA: Section 16 MPRDA: Section 20	N/A

	24 000 litre (24m <sup>3</sup> ) diesel tank.			NEMA: GNR327: Activity 14 NEMA: GNR327: Activity 20 NEMA: GNR327: Activity 30 NEMA: GNR325: Activity 19 NWA: Section 21	
5	Excavations (Bulk sampling): Provision is made for 30 trenches during phase 4 (28 months) of the prospecting operation.  30 x 40m x 21m = 2.52 Ha  Only two excavations will be allowed to be open at any one time.	2 x 40m x 21m = 0.16 Ha	X	MPRDA: Section 16 MPRDA: Section 20 NEMA: GNR327: Activity 19 NEMA: GNR327: Activity 20 NEMA: GNR327: Activity 24 NEMA: GNR327: Activity 27 NEMA: GNR327: Activity 30 NEMA: GNR325: Activity 15 NEMA: GNR325: Activity 19 NEMA: GNR325: Activity 27 NEMA: GNR633: Activity 15 NWA: Section 21 NWA: GNR704	X
6	Generator: It is anticipated that the operation will utilize generators for its operation.	5m x 5m = 25m <sup>2</sup> each		MPRDA: Section 16 MPRDA: Section 20	N/A
7	Offices: Mobile containers will be utilized as offices.	3m x 6m = 18m <sup>2</sup> each		MPRDA: Section 16 MPRDA: Section 20	N/A
8	Processing plant: Relevant processing plants, including recycling / settling dam, for the testing of the minerals applied for.	100m x 50m = 0.5Ha	X	MPRDA: Section 16 MPRDA: Section 20 NEMA: GNR327: Activity 9 NEMA: GNR327: Activity 10	X



				<p>NEMA: GNR327: Activity 20                  NEMA: GNR327: Activity 24                  NEMA: GNR327: Activity 27                  NEMA: GNR327: Activity 30                  NEMA: GNR325: Activity 19                  NEMA: GNR325: Activity 27                  NEMWA: GNR633: Activity 15                  NWA: Section 21                  NWA: GNR704</p>	
9	<p>Roads (both access and haulage road on the site):                  Although it is recommended that the operation utilize existing roads as far as possible, it is anticipated that the operation will create roads. The locality of these roads will be determined by the geology of the area (excavation areas) and the locality of the infrastructure.</p>	<p>500m x 10m wide =                  0.5Ha</p>	X	<p>MPRDA: Section 16                  MPRDA: Section 20                  NEMA: GNR327: Activity 20                  NEMA: GNR327: Activity 24                  NEMA: GNR327: Activity 27                  NEMA: GNR327: Activity 30                  NEMA: GNR325: Activity 19                  NEMA: GNR325: Activity 27</p>	N/A
10	<p>Salvage yard (fenced)</p>	<p>20m x 50m = 0.1Ha</p>		<p>MPRDA: Section 16</p>	N/A
11	<p>Stockpile area:                  Provision is made for a maximum footprint of 0.2 hectares for the stockpile area at any one time.</p>	<p>20m x 100m = 0.2Ha</p>	X	<p>MPRDA: Section 16                  MPRDA: Section 20                  NEMA: GNR327: Activity 20                  NEMA: GNR327: Activity 24                  NEMA: GNR327: Activity 27                  NEMA: GNR327: Activity 30                  NEMA: GNR325: Activity 19                  NEMA: GNR325: Activity 27                  NEMWA: GNR633: Activity 15                  NWA: Section 21</p>	X

				NWA: GNR704	
12	Wash bay	20m x 30m = 600m <sup>2</sup>		MPRDA: Section 16 MPRDA: Section 20	N/A
13	Waste rock dumps: Provision is made for a maximum footprint of 0.1 hectares for waste rock dumps at any one time.	20m x 50m = 0.1Ha	X	MPRDA: Section 16 MPRDA: Section 20 NEMA: GNR327: Activity 19 NEMA: GNR327: Activity 20 NEMA: GNR327: Activity 24 NEMA: GNR327: Activity 27 NEMA: GNR327: Activity 30 NEMA: GNR325: Activity 19 NEMA: GNR325: Activity 27 NEMWA: GNR633: Activity 15 NWA: Section 21 NWA: GNR704	X
14	Water tank: It is anticipated that the operation will establish 2 x 10 000 litre water tanks with purifiers for potable water.	3m x 3m = 9m <sup>2</sup> each		MPRDA: Section 16 MPRDA: Section 20	N/A
15	Weighbridge and weighbridge control room	3m x 20m = 60m <sup>2</sup>		MPRDA: Section 16 MPRDA: Section 20	N/A
16	Workshop: It is anticipated that the operation will make use of mobile containers for their workshop facilities. This area will also include a compressor area and tyre bay.	3m x 6m = 18m <sup>2</sup> each		MPRDA: Section 16 MPRDA: Section 20	N/A

<b>Full description of listed activities applied for:</b>		
<b>MPRDA</b>	<b>Section 16</b>	<b>Application for a Prospecting Right.</b>
<b>MPRDA</b>	<b>Section 20</b>	<b>Permission to remove and dispose of minerals.</b>
<b>NEMA</b>	<b>GNR327 Activity 9</b>	The development of infrastructure exceeding 1 000 meters in length for the bulk transportation of water or storm water:- i) with an internal diameter of 0.36 meters or more; or ii) with a peak throughput of 120 litres per second or more.
<b>NEMA</b>	<b>GNR327 Activity 10</b>	The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes i) with an internal diameter of 0,36 meters or more; or ii) with a peak throughput of 120 litres per second or more.
<b>NEMA</b>	<b>GNR327 Activity 14</b>	The development and related operation of facilities or infrastructure, for the storage, or the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.
<b>NEMA</b>	<b>GNR327 Activity 20</b>	Any activity including the operation of that activity which requires a prospecting right in terms of Section 16 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including- (a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or (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.
<b>NEMA</b>	<b>GNR327 Activity 24 (ii)</b>	The development of a road:- (ii) with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 meters.
<b>NEMA</b>	<b>GNR327 Activity 27</b>	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.

<b>NEMA</b>	<b>GNR327 Activity 30</b>	<b>Any process or activity identified in terms of Section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).</b>
<b>NEMA</b>	<b>GNR325 Activity 19</b>	<b>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-</b> <b>(a) associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource; or</b> <b>(b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing;</b> <b>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.</b>
<b>NEMA</b>	<b>GNR325 Activity 27</b>	<b>The development of a road:-</b> <b>i) with a reserve wider than 30 meters; or</b> <b>ii) catering for more than one lane of traffic in both directions.</b>
<b>NEMA Waste Act</b>	<b>GNR633 Activity 15</b>	<b>National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008); Category A:</b> <b>The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a prospecting right or mining permit in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).</b>
<b>NWA</b>	<b>Section 21</b>	<b>Water use:</b> <b>- Section 21(a): Taking water from a water resource;</b> <b>- Section 21(b): Storing water; and</b> <b>- Section 21(g): Disposing of waste in a manner which may detrimentally impact on a water resource.</b>
<b>NWA</b>	<b>GNR704</b>	<b>Regulations published on 4 June 1999 in terms of the National Water Act, 1998 (Act No. 36 of 1998).</b>

**ii) Description of the activities to be undertaken:**

(Describe methodology or technology to be employed, and for a linear activity, a description of the route of the activity.)

Phase	Activity <small>(what are the activities that are planned to achieve optimal prospecting)</small>	Skill(s) required <small>(refers to the competent personnel that will be employed to achieve the required results)</small>	Timeframe <small>(in months) for the activity)</small>	Outcome <small>(What is the expected deliverable, e.g. Geological report, analytical results, feasibility study, etc.)</small>	Timeframe for outcome <small>(deadline for the expected outcome to be delivered)</small>	What technical expert will sign off on the outcome? <small>(e.g. geologist, mining engineer, surveyor, economist, etc)</small>
1	Reconnaissance visit Desktop study Geological mapping	Geologist	Month 1	Memorandum to address any problems Geological maps	Month 2	Geologist
2	Drilling (Percussion)	Drilling contractor	Months 2 - 6	Drill logs	Month 7	Geologist
3	Analysis of drill samples	Laboratory	Months 2 - 6	Analyses sheets Laboratory Report	Month 7	Laboratory
4	Bulk sampling	Geologist	Month 7 – 34	Bulk sampling results	Month 34	Geologist
5	Consolidation and interpretation of all results/data	Geologist	Months 35 - 36	Detailed results and pre-feasibility reports including resource statements and geological maps/plans	Month 36	Geologist

- **Description of planned non-invasive activities:**  
(These activities do not disturb the land where prospecting will take place e.g. aerial photography, desktop studies, aeromagnetic surveys, etc)

Phase 1:

In order to direct the exploration programme in an efficient manner, there will be a review of all available information and data gathered by previous exploration on the farm. A desktop study will be undertaken of the mineral potential of the area.

A site investigation of the target areas will be undertaken to identify infrastructure and determine any potential problems that may need to be addressed.

Any anomalous features identified will be mapped in detail. The various rock types and their contacts will also be mapped.

Phase 3:

Drill samples will be collected in one-meter intervals and logging will be done by a qualified geologist who will record the lithology, mineralogy, degree of mineralization and structural features. Mineralized samples will be analyzed at an internationally recognized (ISO certified) laboratory.

Phase 5

All the drill- and bulk sampling data will then be modeled to obtain a final interpretation of the potential of the deposit. A detailed feasibility report, containing resource calculations, will be compiled to evaluate the economic viability of the project.

- **Description of planned invasive activities:**  
(These activities result in land disturbances e.g. sampling, drilling, bulk sampling, etc)

Phase 2: Percussion drilling

Percussion drilling will be used initially to identify the position of a suspected base metal deposit. The position of the boreholes is dependent on the results of the review of historical activities, geological mapping, desktop study and geophysical survey.

Thirty boreholes, each 50m deep (can be more or less depending on results), are planned. The collar position of all boreholes will be surveyed. All drilling will be short term and undertaken by a contractor using truck-mounted equipment.

Angled percussion holes are planned to locate and intersect the mineralization. A traverse line or grid drilling is used to identify and define the extent of any mineralization. The sizes of the boreholes drilled will be determined by such factors as cost, proposed sampling, availability of drilling machines and the volume of sample required, among others.

Phase 4: Bulk sampling

Bulk sampling will be conducted during phase 4 of the prospecting period for a period of 28 months.

GEJ plans to bulk sample a total volume of 118 125m<sup>3</sup> (420 000 tonnes) of minerals.

Provision of 210 000 tonnes bulk sample is made per mineral applied for. This; however; depends solely on the drilling results.

Commodity	Tonnes / Month	Months	Total Tonnes	S.G.	Total m <sup>3</sup>
Iron Ore	7 500.00	28	210 000.00	4	52 500.00
Manganese Ore	7 500.00	28	210 000.00	3.2	65 625.00
<b>Total</b>			<b>420 000.00</b>		<b>118 125.00</b>
<b>Waste</b>					
1:1 Stripping Ratio	Tonnes / Month	Months	Total Tonnes	S.G.	Total m <sup>3</sup>
Waste Rock Material	15 000.00	28	420 000.00	2.5	168 000.00

With the 1:1 stripping ratio the total m<sup>3</sup> excavated for the prospecting period calculates to ~286 125m<sup>3</sup> (~840 000 tonnes).

**e) Policy and Legislative Context:**

<p>Applicable Legislation and Guidelines used to compile the report (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process.)</p>	<p>Reference where applied</p>
<p>Atmospheric Pollution Prevention Act (Act 45 of 1964) and Regulations</p>	<ul style="list-style-type: none"> <li>- Sections 27 – 35: Dust control</li> <li>- Sections 36 – 40: Air pollution by fumes emitted by vehicles.</li> </ul>
<p>Conservation of Agricultural Resources Act (Act 43 of 1983) and Regulations</p>	<ul style="list-style-type: none"> <li>- Section 6: Implementation of control measures for alien and invasive plant species.</li> </ul>
<p>Constitution of South Africa (Act 108 of 1996)</p>	<ul style="list-style-type: none"> <li>- Chapter 2: Bill of Rights</li> <li>- Section 24: Environmental rights</li> <li>- Section 25: Rights in Property</li> </ul>
<p>Environment Conservation Act (Act 73 of 1989) and Regulations</p>	<ul style="list-style-type: none"> <li>- Section 19 and 19A: Prevention of littering by employees and sub-contractors during construction and maintenance phases of the proposed project.</li> <li>- Sections 21, 22, 25, 26 and 28: EIA Regulations, including listed activities.</li> <li>- Section 28A: Exemptions.</li> </ul>
<p>Fencing Act (Act 31 of 1963)</p>	<ul style="list-style-type: none"> <li>- Section 17: States that any person erecting a boundary fence may clean any bush along the line of the fence up to 1.5m on each side thereof and remove any tree standing in the immediate line of the fence. However, this provision must be read in conjunction with the environmental legal provisions relevant to protection of flora.</li> </ul>
<p>Hazardous Substances Act (Act 15 of 1973) and Regulations</p>	<ul style="list-style-type: none"> <li>- Definition, classification, use, operation, modification, disposal or dumping of hazardous substances.</li> </ul>
<p>Intergovernmental Relations Act (Act 13 of 2005)</p>	<ul style="list-style-type: none"> <li>- This Act establishes a framework for the National, Provincial and Local Governments to promote and facilitate intergovernmental relations.</li> </ul>
<p>Mine, Health and Safety Act (Act 29 of 1996) and Regulations</p>	<ul style="list-style-type: none"> <li>- The Act</li> </ul>
<p>Mineral and Petroleum Resources Development Act (Act 28 of 2002) and Regulations</p>	<ul style="list-style-type: none"> <li>- The Act</li> </ul>
<p>Mineral and Petroleum Resources Development Act (Act</p>	<ul style="list-style-type: none"> <li>- The Act</li> </ul>

49 of 2008)	
National Environmental Management Act (Act 107 of 1998) as amended and Environmental Impact Assessment Regulations, 2014	<ul style="list-style-type: none"> <li>- Section 2: Strategic environmental management goals and objectives.</li> <li>- Section 24: Foundation for Environmental Management frameworks.</li> <li>- Section 28: The developer has a general duty to care for the environment and to institute such measures to demonstrate such care.</li> </ul>
National Environmental Management: Air Quality Act (Act 39 of 2004)	<ul style="list-style-type: none"> <li>- Section 32: Control of dust</li> <li>- Section 34: Control of noise</li> <li>- Section 35: Control of offensive odours</li> </ul>
National Environmental Management: Biodiversity Act (Act 10 of 2004)	<ul style="list-style-type: none"> <li>- Sections 65 – 69: These sections deal with restricted activities involving alien species; restricted activities involving certain alien species totally prohibited; and duty of care relating to alien species.</li> <li>- Sections 71 and 73: These sections deal with restricted activities involving listed invasive species and duty of care relating to listed invasive species.</li> </ul>
National Environmental Management: Protected Areas Act (Act 57 of 2003)	<ul style="list-style-type: none"> <li>- The Act</li> </ul>
National Environmental Management: Waste Management Act (Act 59 of 2008)	<ul style="list-style-type: none"> <li>- Chapter 4: Waste management activities</li> </ul>
National Forest Act (Act 84 of 1998) and Regulations	<ul style="list-style-type: none"> <li>- Section 7: No person may cut, disturb, damage or destroy any indigenous, living tree in a natural forest, except in terms of a licence issued under Section 7(4) or Section 23; or an exemption from the provisions of this subsection published by the Minister in the Gazette.</li> <li>- Sections 12 – 16: Deals with protected trees, with the Minister having the power to declare a particular tree, a group of trees, a particular woodland, or trees belonging to a certain species, to be a protected tree, group of trees, woodland or species.</li> <li>- Section 15: No person may cut, disturb, damage, destroy or remove any protected tree; or collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a licence granted by the Minister.</li> </ul>
National Heritage Resources Act (Act 25 of 1999) and Regulations	<ul style="list-style-type: none"> <li>- Section 34: No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.</li> <li>- Section 35: No person may, without a permit issued by the responsible heritage resources authority destroy, damage, excavate, alter, deface or</li> </ul>



	<p>otherwise disturb any archaeological or palaeontological site.</p> <ul style="list-style-type: none"> <li>- Section 36: No person may, without a permit issued by SAHRA or a provincial heritage resources authority destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a forma cemetery administered by a local authority.</li> <li>- Section 38: This section provides for HIA which are not already covered under the ECA. Where they are covered under the ECA the provincial heritage resources authorities must be notified of a proposed project and must be consulted during HIA process.</li> </ul>
National Water Act (Act 36 of 1998) and Government Notice No. 704 of 1991	<ul style="list-style-type: none"> <li>- Section 4: Use of water and licensing.</li> <li>- Section 19: Prevention and remedying the effects of pollution.</li> <li>- Section 20: Control of emergency incidents.</li> </ul>
Nature Conservation Ordinance (Ord 19 of 1974)	<ul style="list-style-type: none"> <li>- Chapters 2, 3, 4 and 6: Nature reserves, miscellaneous conservation measures, protection of wild animals other than fish, protection of Flora.</li> </ul>
Northern Cape Nature Conservation Act (Act 9 of 2009)	<ul style="list-style-type: none"> <li>- Addresses protected species in the Northern Cape and the permit application process related thereto.</li> </ul>
Occupational Health and Safety Act (Act 85 of 1993) and Regulations	<ul style="list-style-type: none"> <li>- Section 8: General duties of employers to their employees.</li> <li>- Section 9: General duties of employers and self-employed persons to persons other than their employees.</li> </ul>
Road Traffic Act (Act 93 of 1997) and Regulations	<ul style="list-style-type: none"> <li>- The Act</li> </ul>
Water Services Amendment Act (Act 30 of 2007)	<ul style="list-style-type: none"> <li>- It serves to provide the right to basic water and sanitation to the citizens of South Africa.</li> </ul>
Basic Conditions of Employment Act (Act 3 of 1997)	<ul style="list-style-type: none"> <li>- To control employment aspects</li> </ul>
Basic Conditions of Employment Amendment Act (Act 11 of 2002)	<ul style="list-style-type: none"> <li>- Amendments to BCEA</li> </ul>
Community Development (Act 3 of 1966)	<ul style="list-style-type: none"> <li>- To promote community development</li> </ul>
Development Facilitation (Act 67 of 1995)	<ul style="list-style-type: none"> <li>- To provide for planning and development</li> </ul>
Development Facilitation (GN24, PG329, 24/07/1998)	<ul style="list-style-type: none"> <li>- Regulations re Northern Cape LDO's</li> </ul>
Development Facilitation (GNR1, GG20775, 07/01/2000)	<ul style="list-style-type: none"> <li>- Regulations re application rules S26, S46, S59</li> </ul>
Development Facilitation (GN732, GG14765, 30/04/2004)	<ul style="list-style-type: none"> <li>- Determines amount, see S7(b)(ii)</li> </ul>
Land Survey Act (Act 8 of 1997)	<ul style="list-style-type: none"> <li>- To control land surveying, beacons etc.</li> </ul>
Land Survey Act (GNR1130, GG18229, 29/08/1997)	<ul style="list-style-type: none"> <li>- Agriculture, land survey S10</li> </ul>

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National Veld and Forest Fire Act (Act 101 of 1998)	- To regulate law on veld and forest fires
National Veld and Forest Fire Act (GN1775, GG22527, 01/08/2001))	- Draft Regulations S21
Municipal Ordinance, 20/1974	- To control pollution, sewers etc.
Municipal Ordinance, PN955, 29/08/1975	- Nature conservation Regulations
Cape Land Use Planning Ordinance, 15/85	- To control land use planning
Cape Land Use Planning Ordinance, PN1050, 05/12/1988	- Land use planning Regulations
Planning and Development Act (Act 7 of 1998)	- To control planning and development

Draft

**f) Need and desirability of the proposed activities:**

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

Need and desirability is based on the principle of sustainability, set out in the Constitution and in NEMA. Addressing the need and desirability of a development is a way of ensuring sustainable development – in other words, that a development is ecologically sustainable and socially and economically justifiable – and ensuring the simultaneous achievement of the triple bottom-line.

- Need:

Assessment of the geological information available has determined that the area in question may have various mineral targets. In order to ascertain the above and determine the nature, locality and extent of the mineral targets within the prospecting area, it will be necessary that prospecting be undertaken. The prospecting will also determine if there are any features that may have an impact on the economic extraction of the minerals.

The information that will be obtained from the prospecting to be done will be necessary to determine, should the minerals be found, how and where the minerals will be extracted and how much economically viable mineral reserves are available within the proposed prospecting area.

Should the minerals applied for be found in the application area, GEJ will be able to ensure employment opportunities and support to the local business sector for a certain period.

GEJ expects that substantial benefits from the project (should the minerals applied for be found) will accrue to the immediate project area, the sub-region and the Northern Cape Province. These benefits must be offset against the costs of the project, including the impact to the surface owners.

- Desirability:

No	Description	Yes/No
1	Does the proposed land use / development fit the surrounding area?	Yes
2	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	Yes
3	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	Yes
4	Will the proposed land use / development impact on the sense of place?	Yes
5	Will the proposed land use / development set a precedent?	No
6	Will any person's rights be affected by the proposed land use / development?	Yes
7	Will the proposed land use / development compromise the "urban edge"?	No

- Benefits:

No	Description	Yes/No
1	Will the land use / development have any benefits for society in general?	Yes
2	Will the land use / development have any benefits for the local communities where it will be located?	Yes

**g) Period for which the environmental authorisation is required:**

3 Years

**h) Description of the process followed to reach the proposed preferred site:**

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

**(i) Details of all alternatives considered:**

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

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

Title Deed	Property	Landowner
T2046/2005	Remaining Extent of the Farm Bulls Run 164	Mr. J.L. Jordaan
T1716/2014	Remaining Extent of Portion 1 of the Farm Bulls Run 164	Temdale Boerdery (Pty) Ltd
T1716/2014	Portion 2 of the Farm Bulls Run 164	Temdale Boerdery (Pty) Ltd
T4501/2006	Remaining Extent of the Farm Hartfell 172	Hartveld Trust

Alternatives considered:-

GEJ has considered the following:

- The Geological formation that supports the possibility that the minerals applied for could be found within the PR Area.
- The availability of farms within the area that is not already occupied by existing prospecting or mining rights.
- The availability of infrastructure, such as a road network, in the immediate surrounding area, which could be utilized to allow easy access to the site.

**(b) The type of activity to be undertaken:**

GEJ plans to conduct prospecting activities: Percussion drilling and bulk sampling.

Alternatives considered:-

Alternative land uses include: Livestock / Game farming and/or other agricultural farming activities.

GEJ's main economic activity is prospecting/mining and for this reason does not favour these alternative land uses.

**(c) The design or layout of the activity:**

GEJ plans to establish the following, amongst other, infrastructure on their site during the initial construction (bulk sampling) phase:

- Ablution facilities (chemical toilets)
- Diesel tank
- Generator
- Offices (mobile containers)
- Processing Plant and recycling/settling dam
- Roads (access & haul)
- Salvage Yard
- Security access point
- Stockpile area
- Storage facilities (mobile containers)
- Washbay
- Water tanks (drinking water)
- Weighbridge and weighbridge control room
- Workshops (mobile containers)

Alternatives considered:-

The final locality of the above infrastructure can only be determined after the first stages of the prospecting period (reconnaissance visit; desktop study; geological mapping and drilling) have been finalized.

The following features will be taken into account during the planning phase:

- Locality of any infrastructure (i.e. residential and associated buildings);
- Locality of the ore bodies;
- Topography of the area;
- Sensitive environmental features; and
- Discussions with the surface owners of the land.

**(d) The technology to be used in the activity:**

Both the iron ore and manganese ore processing plant will be modular. Both of these plants will consist of a JAW crusher, double-deck screen and cone crusher. The process will be as follows:

The Run of Mine (ROM) is hauled to the dry crushing and screening plant. An excavator with a hydraulic hammer attachment is used to break down the +500mm ore.

The ore (-500mm) is fed into the VGF which then feeds the JAW crusher. The JAW crushes the ore down to -180mm. The crushed ore is then fed to a double deck screen which screens the ore into two sizes:

- +20mm -100mm (lumpy); and
- -20mm +1mm (fines)

The resultant product is accumulated into a product stockpile and waste is loaded, hauled and dumped at waste dumps/backfilling/road making. The final product is transported by road to the market.

Alternatives considered:-

The only alternative considered was the processing of ore only using a wet processing method (JIG / DMS). The Fe grade at the PR Area is expected to be 62%; whilst the Mn grade is expected at 28% and for this reason beneficiation of the ore to ensure grade is not anticipated.

**(e) The operational aspects of the activity:**

Bulk sampling will be done by the conventional opencast method. It is designed based on the nature of the ore-bodies on the site, which proposes that each resource area be treated as a separate pit. Bulk sampling can be done on two ore bodies at any one time.

Where present vegetated soil overlying the planned excavation area is to be stripped prior to bulk sampling and stockpiled on a dedicated (temporary) dump to be used for rehabilitation purposes at a later stage.

A haul road network will provide access to the opencast excavation areas and to the dry (modular) crushing & screening plants (Fe & Mn).

Alternatives considered:-

The conventional opencast drill-blast-load-haul-mining method has been proven to be the most cost effective mining method in the Northern Cape Province and for this reason no viable alternatives were identified.

**(f) The option of not implementing the activity:**

If the activity is not implemented the current land uses will continue.

Five measures of economic impacts can be used to demonstrate the potential effect of the proposed prospecting operation on the local economy:

- Employment - The extent of employment can be measured as number of jobs or in terms of full time equivalents.
- Payroll income - The gross remuneration of employees in terms of salaries and wages.
- Capital Expenditure (CAPEX) - The total amount spent on the purchasing of fixed assets and total spent on construction.
- Operating expenditure and maintenance (OPEX) - The total amount spent locally by businesses on goods and services, excluding salaries and wages as well as rents or interest.
- Revenue - The total value of sales arising from business activity at the prospecting operation.

The abovementioned positive impacts will be lost if the proposed prospecting project is not developed.

(ii) **Details of the Public Participation Process Followed:**

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

Notification:

Identified interested and/or affected parties were notified of the proposed activity as follows:

- Notification letters were sent to all identified interested and / or affected parties (either by registered mail or by e-mail) on the 1<sup>st</sup> of August 2022. Attached to each of these letters was a draft Scoping Report, containing information relating to the proposed project.
- A newspaper advert was placed in the 'Gemsbok' local newspaper on the 3 August 2022.
- A notice board was placed at the entrance to the site.

Proof of notification is attached as Appendix '5'.

The following responses have been received to the notification letters (refer to Appendix '6'):

- ...

Meetings:

Minutes of all meetings held and attendance registers of these meetings are included under Appendix '7'. The outcome of the meetings has been summarized below:

- ...

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(iii) Summary of issues raised by I&AP's

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

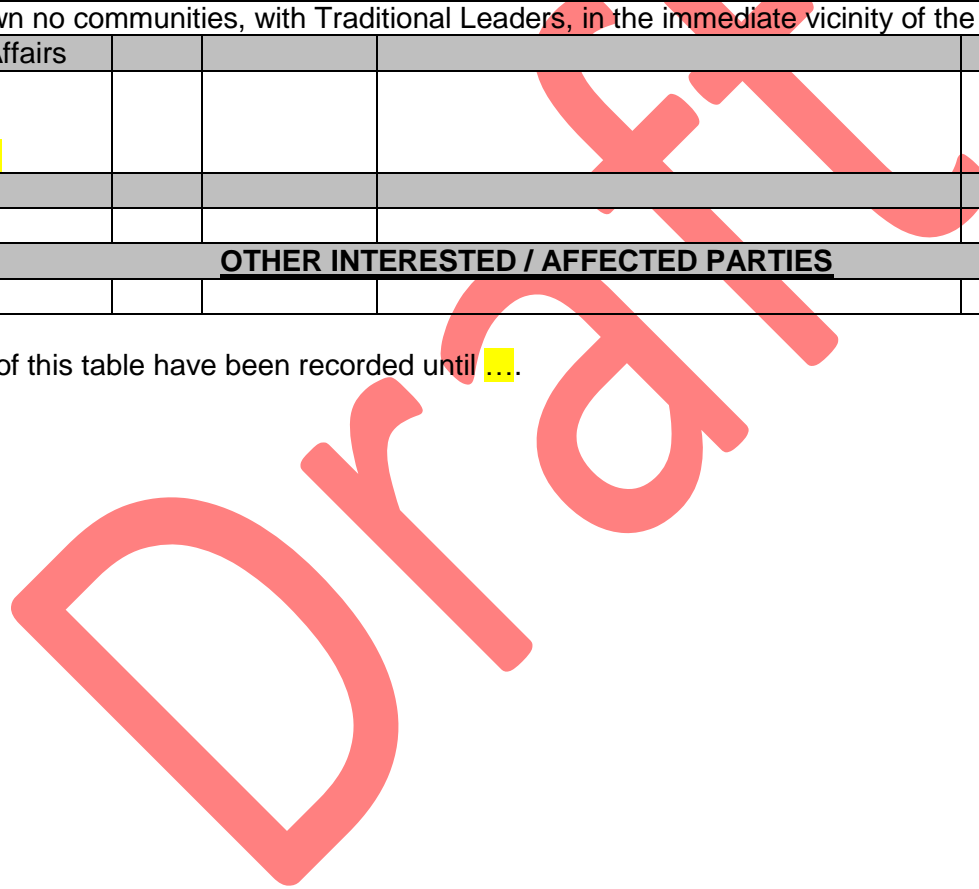
Interested and Affected Parties List the names of persons consulted in this column, and mark with an X where those who must be consulted were in fact consulted.		Date comments received	Issues raised	EAPs response to the issue of the I&AP
<b>AFFECTED PARTIES</b>				
Landowner/s	X			
Mr. J.L. Jordaan			•	•
Temdale Boerdery (Pty) Ltd			•	•
Hartveld Trust			•	•
Lawful occupier/s of the land				
N/A				
Landowners or lawful occupiers on adjacent properties	X			
Mr. D.B. Lubbe			•	•
Ms. H.M.J. Mostert			•	•
Mr. & Mrs. G.J. Coffee			•	•
Pietman Kotze Familie Trust			•	•
Ms. A. Burger			•	•
Mr. A.J. Coetzee			•	•
Summerville Trust			•	•
Municipal Councillor	X		•	•
Mr. J.A. Phillips (Mayor)			•	•
Municipality	X			
Siyathemba Local Municipality				
Pixley Ka Seme District Municipality				
Organs of State (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA, etc.)				
SANRAL				
Communities				
Not applicable: There are no known communities in the immediate vicinity of the prospecting right application area.				



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Department of Land Affairs				
Department: Agriculture, Environmental Affairs, Rural Development and Land Reform				
Traditional Leaders				
Not applicable: There are known no communities, with Traditional Leaders, in the immediate vicinity of the prospecting right application area.				
Department of Environmental Affairs				
Department: Agriculture, Environmental Affairs, Rural Development and Land Reform				
Other Competent Authorities				
Department: Water Affairs				
<b>OTHER INTERESTED / AFFECTED PARTIES</b>				
SAHRA				

\* Note: The contents of this table have been recorded until ...



**(iv) The Environmental attributes associated with the sites:**

**(1) Baseline Environment:**

**(a) Type of environment affected by the proposed activity:**

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

- **Air quality:**

The PR Area is situated in a rural area approximately 30km north-west of the town of Niekerkshoop and thus the air quality is expected to be good.

- **Archaeological, cultural & heritage environment:**

The Screening Reports, as obtained from the national web-based environmental screening tool, lists the archaeological and palaeontological sensitivities of the PR Area as follows:

Property	Archaeological and Cultural Heritage	Palaeontology
Remaining Extent, Remaining Extent of Portion 1 and Portion 2 of the Farm Bulls Run 164	Low	Medium
Remaining Extent of the Farm Hartfell 172	Low	Medium

A specialist shall be appointed to assess the Palaeontological features at the PR Area and the findings of this report will be included in the EIA/EMPR document.

- **Fauna:**

Most large antelope species are absent from the area, although nomad game like Blesbok, Gemsbok, Duiker, Kudu, Steenbok and Springbok occasionally traverse the properties.

The normal array of small mammals and birds that are associated with the Northern Upper Karoo, Olifantshoek Plains Thornveld and Gordonia Duneveld Vegetation Types might be expected.

- **Flora:**

There are three broad vegetation types found on the PR Area:

- Northern Upper Karoo (NKu 3):

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

**Conservation:**

- Least threatened.
- Target 21%.
- None conserved in statutory conservation areas.
- About 4% has been cleared for cultivation or irreversibly transformed by building of dams.
- Erosion is moderate (46.2%), very low (32%) and low (20%).

→ *Prosopis glandulosa*, regarded as one of the 12 agriculturally most important invasive alien plants in South Africa, is widely distributed in this vegetation type.

- Olifantshoek Plains Thornveld (SVk 13):  
A very wide and diverse unit on plains with usually open tree and shrub layers with, for example, *Acacia luederitzii*, *Boscia albitrunca* and *Rhus tenuinervis* and with a usually sparse grass layer.

Conservation:

- Least threatened.
- Target 16%.
- Only 0.3% statutorily conserved in the Witsand Nature Reserve.
- Only about 1% of the area has been transformed.
- Erosion is very low.

- Gordonia Duneveld (SVkd 1):  
Parallel dunes about 3 – 8m above the plains. Open shrubland with ridges of grassland dominated by *Stipagrostis amabilis* on the dune crests and *Acacia haematoxylon* on the dune slopes, also with *A. mellifera* on the lower slopes and *Rhigozum trichotomum* in the interdune straaten.

Conservation:

- Least threatened.
- Target 16%.
- Some 14% statutorily conserved in the Kglagadi Transfrontier Park.
- Very little transformed.
- Generally low erosion, but some areas with spectacular destabilization of normally vegetated dunes. Erosion is normally very low.

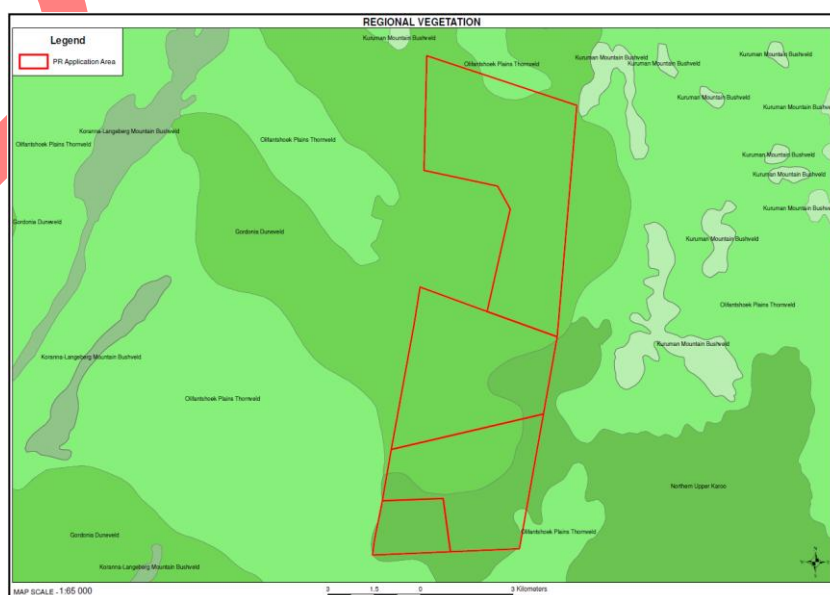


Figure 3 - Regional Vegetation Map

- **Geology:**

The geology and soil is described per vegetation type:

- Northern Upper Karoo (NKu 3):  
Shales of the Volksrust Formation and to a lesser extent the Prince Albert Formation (both of the Ecca Group) as well as Dwyka Group diamictites form the underlying geology. Jurassic Karoo Dolerite sills and sheets support this vegetation complex in places. Wide stretches of land are covered by superficial deposits including calcretes of the Kalahari Group.

Soils are variable from shallow to deep, red-yellow, apedal, freely drained soils to very shallow Glenrosa and Mispah forms. Mainly Ae, Ag, and Fc land types.

- Olifantshoek Plains Thornveld (SVk 13):  
Red Aeolian sand of Tertiary to Recent age (Kalahari Group) with silcrete and calcrete and some andesitic and basaltic lava of the Griqualand West Supergroup.

Hutton soil forms, deeper than 1.2m, on the overwhelmingly dominant Ae and to a far lesser extent Ah land types.

- Gordonia Duneveld (SVkd 1):  
Aeolian sand underlain by superficial silcretes and calcretes of the Cenozoic Kalahari Group. Fixed parallel sand dunes, with Af land type almost exclusively.

- **Groundwater:**

The PR Area falls over the D72C and D73B quaternary drainage regions.

Drainage Region D72C forms part of the Lower Orange Management Area (nr. 14 in terms of the National Water Act, 1998 (Act no. 36 of 1998) as published in the Government Gazette 20491, 1 October 1999).

Drainage Region D73B forms part of the Lower Vaal Management Area (nr. 10 in terms of the National Water Act, 1998 (Act no. 36 of 1998) as published in the Government Gazette 20491, 1 October 1999).

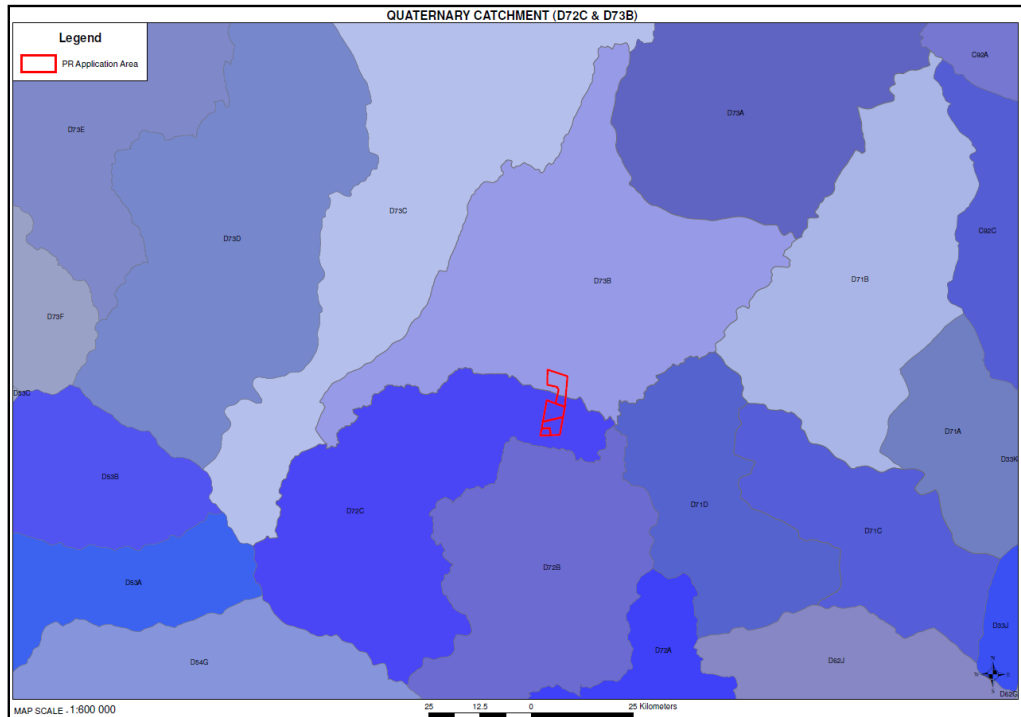


Figure 4 - Quaternary Catchment

- **Noise:**  
The only current anticipated source of noise at the PR Area is vehicles travelling on the secondary and farm roads transecting the PR Area and immediate surrounding area.
- **Sensitive landscapes:**  
"Sensitive environments" that have statutory protection are the following:
  - Limited development areas (section 23 of the Environment Conservation Act, 1989 (Act 73 of 1989).
  - Protected natural environments and national heritage sites.
  - National, provincial, municipal and private nature reserves.
  - Conservation areas and sites of conservation significance.
  - National monuments and gardens of remembrance.
  - Archaeological and palaeontological sites.
  - Graves and burial sites
  - Lake areas, offshore islands and the admiralty reserve.
  - Estuaries, lagoons, wetlands and lakes.
  - Streams and river channels, and their banks.
  - Dunes and beaches.
  - Caves and sites of geological significance.
  - Battle and burial sites.
  - Habitat and /or breeding sites of Red Data Book species.
  - Areas or sites of outstanding natural beauty.
  - Areas or sites of special scientific interest.
  - Areas or sites of special social, cultural or historical interest.
  - Declared national heritage sites
  - Mountain catchment areas.
  - Areas with eco-tourism potential

The following sensitive environments have been identified within the PR Area:

→ Streams and river channels, and their banks:

There are a number of non-perennial drainage lines within the PR Area.

A specialist shall be appointed to conduct a Palaeontological assessment of the PR Area to determine if there are any sites of heritage importance within the area applied for. The findings of this report will be included in the EIA/EMPR document.

Any other sensitive environments shall be identified through the public participation process with input from the surface owners and/or any other interested/affected party. These shall be included in the EIA/EMPR document.

- **Socio-Economic:**

The last census was held in 2022; however these results are not yet available. The following section was compiled using data from Census 2001 and 2011 for the Siyancuma Local Municipality.

Description	Census 2001	Census 2011
Total population	18 455	21 591
Young (0 – 14)	33.7%	30.8%
Working age (15 – 64)	63.2%	63.2%
Elderly (65+)	5.9%	6%
Dependency ratio	65.5%	58.2%
Sex ratio	89.9	99.3
Growth rate	-1.77%	1.57%
	(2001 – 2011)	(2001 – 2011)
Population density	-	1 person / km <sup>2</sup>
Unemployment rate	36%	24.3%
Youth unemployment rate	43.1%	30.2%
No schooling aged 20+	21.8%	11.5%
Higher education aged 20+	4.7%	5.3%
Matric aged 20+	12.1%	18%
Number of households	4 455	5 831
Number of Agricultural households	-	1 334
Average household size	4	3.6
Female headed households	33.6%	36.1%
Formal dwellings	88.9%	88.6%
Housing owned/paying off	54.8%	54.3%
Flush toilet connected to sewerage	65.9%	64.9%
Weekly refuse removal	75.8%	73.9%
Piped water inside dwelling	22.5%	43.1%
Electricity for lighting	80.9%	86.2%

- **Surface water:**

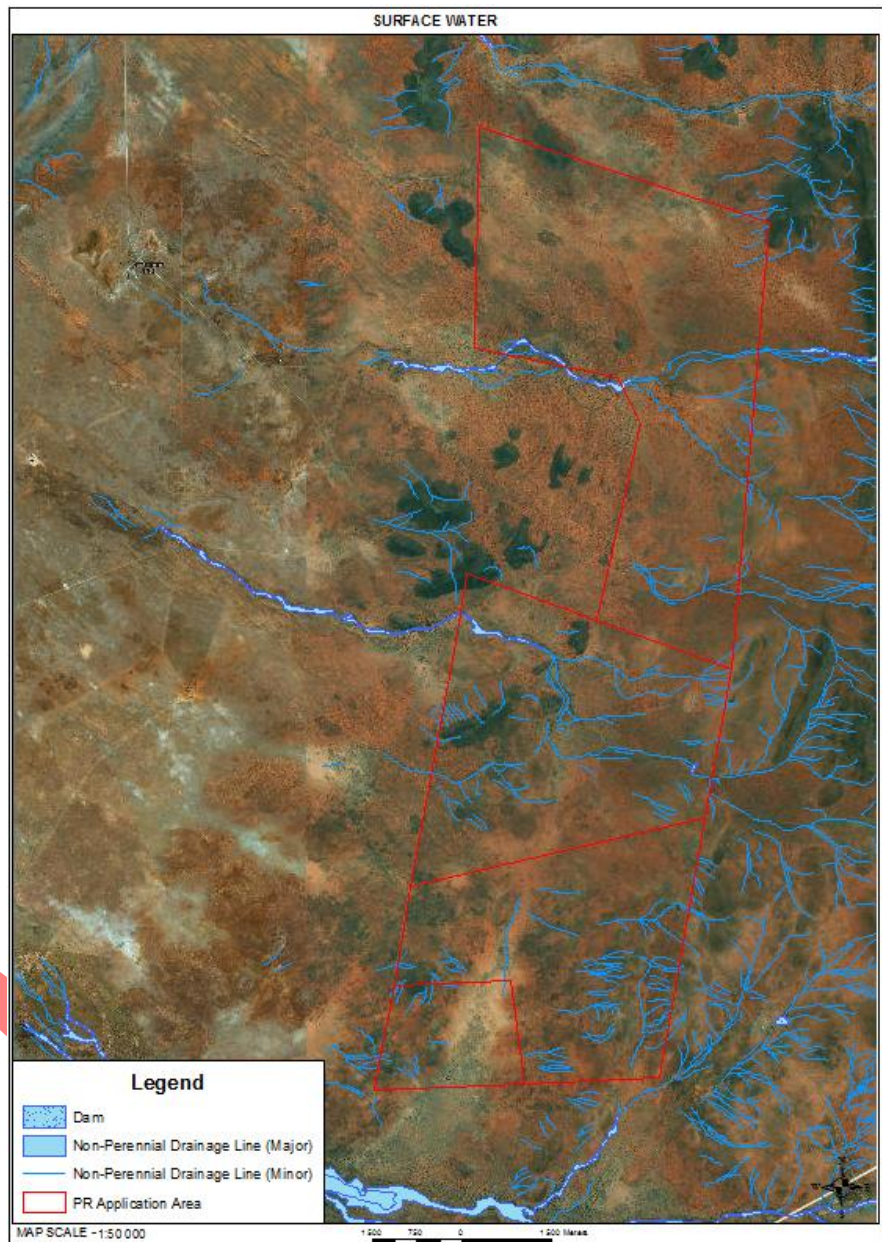


Figure 5 - Surface water

There are a number of non-perennial drainage lines within the PR Area.

**(b) Description of the current land uses.**

- Current land use:  
Agriculture (livestock farming).
- Evidence of disturbance:  
No previous prospecting or mining activities have taken place on the PR Area.

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

- Infrastructure:  
Existing infrastructure on the PR Area includes:
  - Residences and associated infrastructure;
  - Secondary Road;
  - Farm roads;
  - Farm fencing; and
  - Windmills.
- Environmental:  
There are a number of non-perennial drainage lines within the PR Area.

**(d) Environmental and current land use map:**

(Show all environmental and current land use features.)

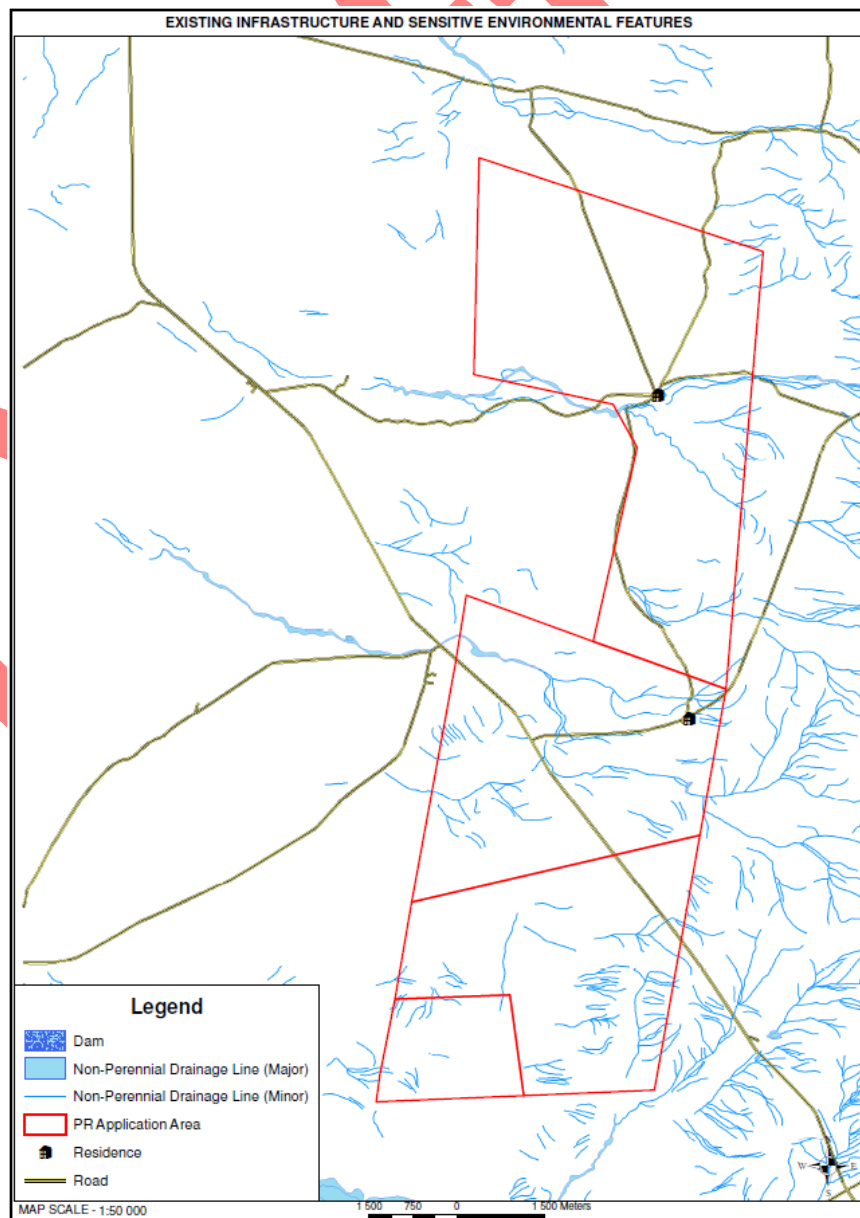


Figure 6 – Current land use and environmental map



(v) **Impacts identified:**

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

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Air quality	<ul style="list-style-type: none"> <li>Nuisance dust on roads will be created by the excavating equipment hauling material between the open excavation areas, the plant area, stockpile areas and waste dump areas on the site.</li> <li>Nuisance dust will be created by the equipment during excavation activities.</li> <li>Nuisance dust will be created by the drilling and blasting activities.</li> <li>Vehicle and equipment emissions in workshop, stores and office areas.</li> <li>Nuisance dust will be created at the modular processing plants.</li> <li>Nuisance dust will be created in the topsoil storage site, stockpile and waste dump areas when the material is dumped.</li> <li>Nuisance dust will be created when new infrastructure is established.</li> <li>Nuisance dust from the roads transecting the properties and surrounding area.</li> <li>Dust created by surrounding prospecting and mining activities.</li> <li>Fumes and noxious gases generated by blasting.</li> <li>Emissions from vehicles utilizing the road network in the area immediately surrounding the site.</li> </ul>	Negative	Regional	Long term	Low	Definite	Low

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Archaeological, cultural & heritage	<ul style="list-style-type: none"> <li>Archaeological artefacts</li> <li>Burial grounds and graves</li> <li>Buildings and structures older than sixty years</li> </ul>	N/A	N/A	N/A	N/A	N/A	No impact

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Fauna	<ul style="list-style-type: none"> <li>Where new haulage roads will be created the natural habitat of the animals will be disturbed and/or destroyed.</li> <li>Road kills.</li> <li>Where the firebreak will be created the natural habitat of the animals will be disturbed and/or destroyed.</li> <li>Where new excavations will be created the natural habitat of the animals will be disturbed and/or destroyed.</li> <li>The natural habitat of the animals will be disturbed and/or destroyed where buildings and infrastructure will be built / established.</li> <li>The natural habitat of the animals will be disturbed and/or destroyed where the modular processing plant will be established.</li> <li>The natural habitat of the animals will be disturbed and/or destroyed where the topsoil storage site, stockpile and waste dump areas will be established.</li> </ul>	Negative	Local	Long term	Medium	Definite	Medium

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Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Flora	<ul style="list-style-type: none"> <li>Where new haulage roads will be created the vegetation will be disturbed and/or destroyed.</li> </ul>	Negative	Site	Long term	High	Definite	High
	<ul style="list-style-type: none"> <li>Where the firebreak will be created the vegetation will be disturbed and/or destroyed.</li> </ul>						
	<ul style="list-style-type: none"> <li>Where new excavations will be created the vegetation will be disturbed and/or destroyed.</li> </ul>						
	<ul style="list-style-type: none"> <li>The vegetation cover will be disturbed and / or destroyed in the areas where the buildings and infrastructure will be built / established.</li> </ul>						
	<ul style="list-style-type: none"> <li>The vegetation cover will be disturbed and / or destroyed where the modular processing plant will be established.</li> </ul>						
	<ul style="list-style-type: none"> <li>The vegetation cover will be disturbed and / or destroyed where the topsoil storage site, stockpile and waste dump areas will be established.</li> </ul>						
	<ul style="list-style-type: none"> <li>Grazing.</li> <li>Runaway veld fires.</li> </ul>						
Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Groundwater	<ul style="list-style-type: none"> <li>Possible hydrocarbon spills from vehicles and equipment.</li> </ul>	Negative	Regional	Long term	Low	Probable	Low
	<ul style="list-style-type: none"> <li>Abstraction of groundwater for the use in the prospecting operation.</li> </ul>						
	<ul style="list-style-type: none"> <li>The utilization of groundwater for the cleaning of vehicles and equipment.</li> </ul>						
Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Noise	<ul style="list-style-type: none"> <li>Noise from the vehicles and equipment on the haulage roads.</li> </ul>	Negative	Regional	Long term	Medium	Definite	Medium
	<ul style="list-style-type: none"> <li>Noise from the equipment and vehicles during excavations activities.</li> </ul>						
	<ul style="list-style-type: none"> <li>Noise from drilling and blasting activities.</li> </ul>						
	<ul style="list-style-type: none"> <li>A high noise impact is expected in the immediate vicinity of the processing plant.</li> </ul>						
	<ul style="list-style-type: none"> <li>Noise created by traffic on surrounding road network.</li> </ul>						
	<ul style="list-style-type: none"> <li>Noise created by farming activities.</li> </ul>						

## Scoping Report – GEJ Resources (Pty) Ltd

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Socio-Economic	• Capital Expenditure	Positive	Regional	Long term	Medium	Definite	High
	• Payroll income	Positive	Regional	Long term	Medium	Definite	High
	• Operating expenditure and maintenance	Positive	Regional	Long term	Medium	Definite	High
	• Revenue	Positive	Regional	Long term	Medium	Definite	High
	• Employment	Positive	Regional	Long term	Medium	Definite	High
	• Employment of contractors	Positive	Regional	Long term	Medium	Definite	High
	• Provision of skills development	Positive	Regional	Long term	Medium	Definite	High
	• Opportunities for local SMME's	Positive	Site	Long term	Medium	Definite	Medium
	• Community involvement	Positive	Site	Long term	Medium	Definite	Medium
	• Poverty alleviation	Positive	Site	Long term	Medium	Definite	High
	• Community health	Positive	Site	Long term	Medium	Definite	Medium
	• Community proximity	Negative	Site	Long term	Medium	Definite	Medium
	• Security risk	Negative	Regional	Long term	Medium	Probable	Low
	Impact	Description	Nature	Extent	Duration	Intensity	Probability
Soil	<ul style="list-style-type: none"> <li>• Compaction of soil is expected on the roads that are used by the prospecting operation.</li> <li>• Possible hydrocarbon spills from vehicles and equipment.</li> <li>• Removal and disturbance of soil structure by excavation activities.</li> <li>• Disturbance of soil structure where buildings and infrastructure will be built / established.</li> <li>• Disturbance of soil structure where the topsoil storage sites, stockpile and waste dump sites will be created.</li> </ul>	Negative	Site	Long term	Medium	Definite	Medium
Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Surface water	<ul style="list-style-type: none"> <li>• If roads are not properly maintained, water erosion after thunder storms can occur.</li> <li>• Possible contamination of surface water by hydrocarbon spills during a rain event.</li> <li>• Collection of water in open excavations during and after thunderstorms.</li> </ul>	Negative	Regional	Long term	Low	Probable	Low
Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Topography	<ul style="list-style-type: none"> <li>• Changing of natural slopes will take place.</li> <li>• Temporary stockpiles, topsoil storage sites and waste rock dumps will be created, temporarily altering the topography.</li> </ul>	Negative	Site	Long term	Low	Definite	Low

Scoping Report – GEJ Resources (Pty) Ltd

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Visual	<ul style="list-style-type: none"> <li>The prospecting activities will be visible to some extent from the immediate surroundings.</li> </ul>	Negative	Site	Long term	Low	Definite	Low
	<ul style="list-style-type: none"> <li>Changing of natural aesthetic view of environment could take place from prospecting activities and relating infrastructure.</li> </ul>						
	<ul style="list-style-type: none"> <li>Breaking of natural skyline.</li> </ul>						

Impact	Description	Nature	Extent	Duration	Intensity	Probability	Significance
Vibrations	<ul style="list-style-type: none"> <li>Ground vibrations due to blasting activities</li> </ul>	Negative	Site	Long term	Low	Definite	Low

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**(vi) Methodology used in determining the significance of environmental impacts:**

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

The assessment of the impacts has been conducted according to a synthesis of criteria required by the integrated environmental management procedure.

**Nature of impact**

This is an appraisal of the type of effect the activity would have on the affected environmental component. Its description should include what is being affected, and how.

**Extent**

The physical and spatial size of the impact. This is classified as follows:

- **Local**  
The impacted area extends only as far as the activity, e.g. a footprint.
- **Site**  
The impact could affect the whole, or a measurable portion of the property.
- **Regional**  
The impact could affect the area including the neighbouring farms, transport routes and the adjoining towns.

**Duration**

The lifetime of the impact which is measured in the context of the lifetime of the proposed phase (i.e. construction or operation).

- **Short term**  
The impact will either disappear with mitigation or will be mitigated through natural process in a short time period.
- **Medium term**  
The impact will last up to the end of the mining period, where after it will be entirely negated.
- **Long term**  
The impact will continue or last for the entire operational life of the mine, but will be mitigated by direct human action or by natural processes thereafter.
- **Permanent**  
The only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

**Intensity**

This describes how destructive, or benign, the impact is. Does it destroy the impacted environment, alter its functioning, or slightly alter it. These are rated as:

- **Low**  
This alters the affected environment in such a way that the natural processes or functions are not affected.
- **Medium**  
The affected environment is altered, but function and process continue, albeit in a modified way.

- **High**  
Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project.

### **Probability**

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- **Improbable**  
The possibility of the impact occurring is very low, due either to the circumstances, design or experience.
- **Probable**  
There is a possibility that the impact will occur to the extent that provisions must be made therefore.
- **Highly probable**  
It is most likely that the impacts will occur at some or other stage of the development.
- **Definite**  
The impact will take place regardless of any preventative plans, and mitigation measures or contingency plans will have to be implemented to contain the impact.

### **Determination of significance**

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The classes are rated as follows:

- **No significance**  
The impact is not likely to be substantial and does not require any mitigatory action.
- **Low**  
The impact is of little importance, but may require limited mitigation.
- **Medium**  
The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
- **High**  
The impact is of great importance. Failure to mitigate, with the objective to reduce the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

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

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

A final Site Plan cannot be provided in this early stage of the application process as the locality of the proposed boreholes and trenches is dependent on the results of the following:

- Reconnaissance visit;
- Desktop study; and
- Geological mapping

The following will be taken into consideration when the site layout is planned:

- Existing infrastructure;
- Sensitive environmental features, including no-prospecting buffer zones;
- Topography of the PR Area;
- Locality of ore bodies;

The negative impacts should be avoided / minimized as far as practically possible to ensure a sustainable prospecting operation.

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

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

Impact	Mitigation	Risk
Air quality	<ul style="list-style-type: none"> <li>• Speed limits;</li> <li>• Spraying of surfaces with water (where necessary);</li> <li>• Avoidance of unnecessary removal of vegetation;</li> <li>• Re-vegetation;</li> <li>• Monitoring;</li> <li>• Backfilling and rehabilitation of disturbed areas; and</li> <li>• Controlled drilling and blasting operations, preferably on wind-free days.</li> </ul>	Low
Fauna	<ul style="list-style-type: none"> <li>• Speed limits;</li> <li>• Avoidance of unnecessary removal of vegetation;</li> <li>• Continuous backfilling of open excavations;</li> <li>• Low angle access ramp in excavations;</li> <li>• Continuous rehabilitation of disturbed areas;</li> <li>• Snares &amp; traps removed and destroyed; and</li> <li>• Maintenance of firebreaks.</li> </ul>	Medium
Flora	<ul style="list-style-type: none"> <li>• Avoidance of unnecessary removal of vegetation;</li> <li>• Continuous backfilling of open excavations;</li> <li>• Continuous rehabilitation of disturbed areas;</li> <li>• Maintenance of firebreaks;</li> <li>• No trees felled for firewood;</li> <li>• Obtain relevant permit before removal of protected tree or plant species; and</li> <li>• Re-seeding where necessary.</li> </ul>	High

Ground water	<ul style="list-style-type: none"> <li>• Immediate removal of any hydrocarbon spill;</li> <li>• Maintenance in dedicated area;</li> <li>• Re-fuelling in dedicated area;</li> <li>• Drip pans;</li> <li>• Storage of hydrocarbons in dedicated areas;</li> <li>• Monitoring of groundwater abstraction and quality; and</li> <li>• Clean &amp; Dirty water system.</li> </ul>	Low
Noise	<ul style="list-style-type: none"> <li>• Hearing protection;</li> <li>• Non-metallic washers to join infrastructure;</li> <li>• Working hours;</li> <li>• Controlled drilling &amp; blasting operations;</li> <li>• Silencers on equipment and vehicles;</li> <li>• Acoustic enclosure for generators; and</li> <li>• Distance from residences of surface owners.</li> </ul>	Medium
Soil	<ul style="list-style-type: none"> <li>• Avoidance of unnecessary removal of vegetation;</li> <li>• Continuous backfilling of open excavations;</li> <li>• Continuous rehabilitation of disturbed areas;</li> <li>• Ripping of compacted areas;</li> <li>• Replacing layer of topsoil over backfilled areas;</li> <li>• Maintenance &amp; refuelling in dedicated areas;</li> <li>• Drip pans;</li> <li>• Storage of hydrocarbons in dedicated areas; and</li> <li>• Immediate removal of any hydrocarbon spill.</li> </ul>	Medium
Surface water	<ul style="list-style-type: none"> <li>• Storm water control;</li> <li>• Immediate removal of any hydrocarbon spill;</li> <li>• Maintenance &amp; re-fuelling in dedicated areas;</li> <li>• Drip pans;</li> <li>• Storage of hydrocarbons in dedicated areas; and</li> <li>• Clean &amp; dirty water plan.</li> </ul>	Low
Topography	<ul style="list-style-type: none"> <li>• Continuous backfilling of open excavations;</li> <li>• Replacing layer of topsoil over backfilled areas;</li> <li>• Sloping of rehabilitated and disturbed areas; and</li> <li>• Sloping of topsoil dumps, stockpiles and waste rock dumps.</li> </ul>	Low
Visual	<ul style="list-style-type: none"> <li>• Continuous backfilling of open excavations;</li> <li>• Replacing layer of topsoil over backfilled areas;</li> <li>• Sloping of rehabilitated and disturbed areas;</li> <li>• Sloping of topsoil dumps, stockpiles and waste rock dumps; and</li> <li>• Removal of all infrastructure upon closure.</li> </ul>	Low



- (ix) The outcome of the site selection Matrix:- Final site layout plan:**  
(Provide a final site layout plan as informed by the process of consultation with interested and affected parties.)

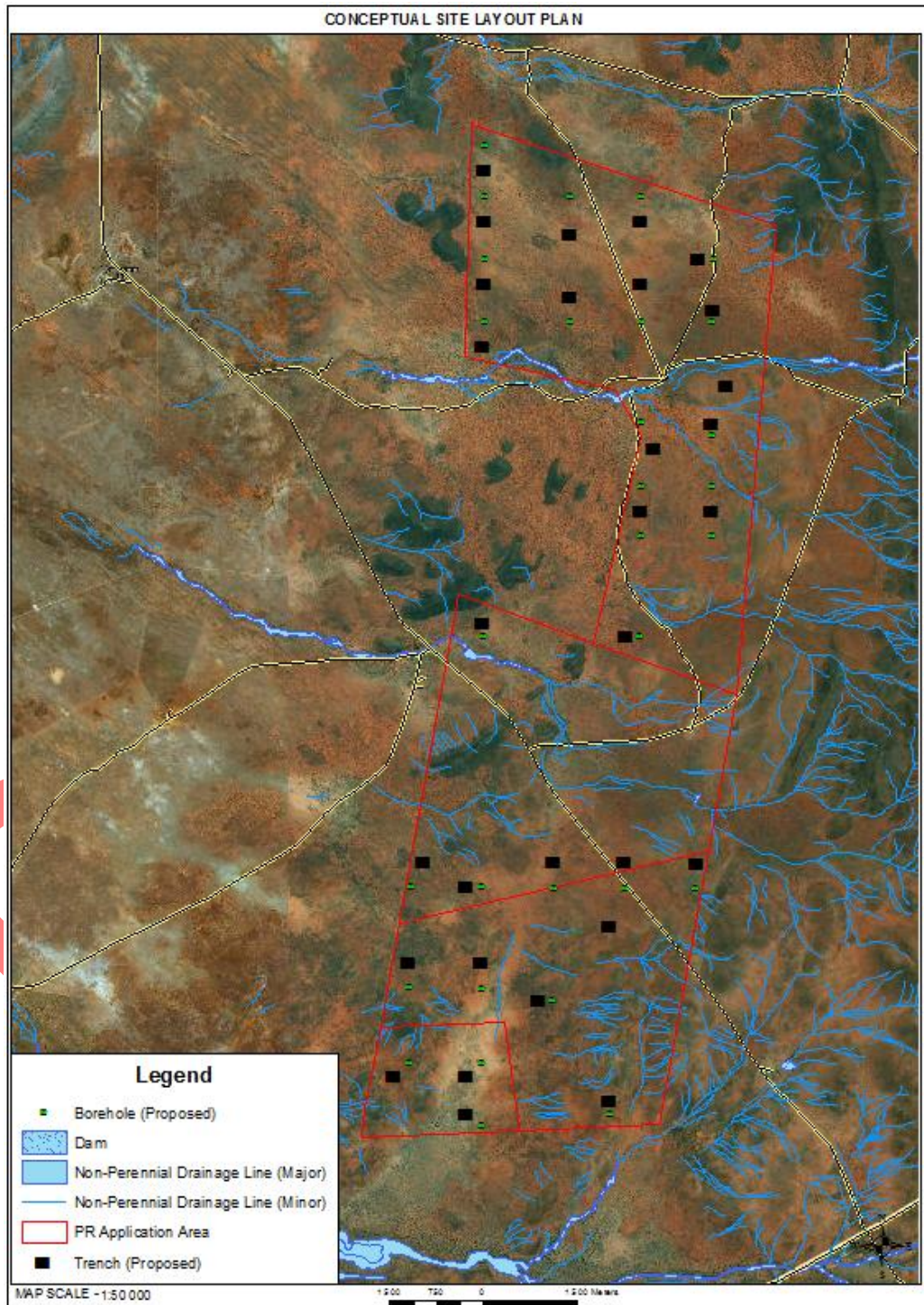


Figure 7 – Conceptual site layout plan

- (x) Motivation where no alternative sites were considered:**

No viable alternative sites were identified for the following reason:

A detailed Site Plan cannot be provided in this early stage of the application process as the locality of the proposed boreholes and trenches is dependent on the results of the following:

- Reconnaissance visit;
- Desktop study; and
- Geological mapping

**(xi) Statement motivating the preferred site:**

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

GEJ has considered the following:

- The Geological formation that supports the possibility that the minerals applied for could be found within the PR Area.
- The availability of farms within the area that is not already occupied by existing prospecting or mining rights.
- The availability of infrastructure, such as a road network, in the immediate surrounding area, which could be utilized to allow easy access to the site.

**i) Plan of study for the Environmental Impact Assessment process:**

**(i) Description of alternatives to be considered including the option of not going ahead with the activity:**

- Land use development alternatives:  
The site layout may vary, depending on the operational requirements, but the final design and layout of the infrastructure can only be decided upon by the management team after granting and execution of the Prospecting Right.
- No-go option:  
The following positive impacts will be lost if the proposed project is not developed:
  - Foreign income and TAX obligations to SARS
  - CAPEX spent locally and regionally
  - Employment
  - Payroll income
  - Operating expenditure and maintenance (OPEX)
  - Revenue

**(ii) Description of the aspects to be assessed as part of the environmental impact assessment process:**

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

I, T. Jooste, ID number 820105 0097 084, herewith undertake to assess all of the aspects affected by each individual activity whether listed or not.

\_\_\_\_\_  
Signature of EAP

Date: \_\_\_\_\_

**(iii) Description of aspects to be assessed by specialists:**

The Screening Report, as obtained from the national web-based environmental screening tool, lists the sensitivities of the PR Area as follows:

Property	Agriculture	Animal Species	Aquatic Biodiversity	Archaeological and Cultural Heritage	Civil Aviation	Defence	Palaeontology
Remaining Extent, Remaining Extent of Portion 1 and Portion 2 of the Farm Bulls Run 164	Medium	Medium	Very High	Low	Low	Low	Medium
Remaining Extent of the Farm Hartfell 172	Medium	Medium	Very High	Low	Low	Low	Medium

Sensitive environmental features, i.e. the non-perennial drainage lines, shall be avoided by the placement of a no-prospecting buffer around these.

The relevant specialists, for sensitivities higher than ‘Medium’ that is not covered by no-prospecting buffer zones, will be appointed to conduct a site visit and assess sensitive environmental features of the PR Area. The findings of the specialist reports shall be included in the EIA/EMPR document.

**(iv) Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives:**

The assessment of the impacts shall be conducted according to a synthesis of criteria required by the integrated environmental management procedure.

The findings in the specialists’ reports will be evaluated and measured against the identified potential impacts that could occur from the prospecting activities.

**(v) The proposed method of assessing duration significance:**

The lifetime of the impact will be measured in the context of the lifetime of the proposed phase or activity.

- **Short term**  
The impact will either disappear with mitigation or will be mitigated through natural process in a short time period.
- **Medium term**  
The impact will last up to the end of the mining period, where after it will be entirely negated.
- **Long term**  
The impact will continue or last for the entire operational life of the mine, but will be mitigated by direct human action or by natural processes thereafter.
- **Permanent**  
The only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

**(vi) The stages at which the Competent Authority will be consulted:**

Consultation with the Competent Authority will take place throughout the application process, however more specifically; consultation will take place before submission of the Scoping Report and again before submission of the EIA/EMPR Report.

**(vii) Particulars of the public participation process with regard to the Impact Assessment process that will be conducted:**

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

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

Registered interested and/or affected parties shall be notified of the EIA process as follows:

- Notification letters;
- Newspapers advert in one local newspaper; and
- Notice board at the entrance of the site.

**2. Details of the engagement process to be followed:**

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

- One-on-One meeting with surface owners (should it be possible to arrange such a meeting) and/or legal occupant.
- Public meeting with all other interested and/or affected parties, should the need arise.

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

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

A draft copy of the EIA / EMPR document will be provided to the surface owners and/or legal occupant of the properties and all other registered interested and / or affected parties for comment and input.

A draft copy of the EIA / EMPR document will be placed at the local municipality for comment and input from any other interested and/or affected party. I&AP's will be notified that the EIA/EMPR is available for review by means of a newspaper advert in one local newspaper.

**(viii) Description of the tasks that will be undertaken during the environmental impact assessment process:**

The process shall entail the appointment of specialists, review of all available information, impact assessment, consultation and drafting of EIA/EMPR.

**(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:**

<b>ACTIVITY</b> Whether listed or not listed (e.g. excavations, blasting, stockpiles, discard dumps or dams, loading, hauling and transport, water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc...)	<b>POTENTIAL IMPACT</b> (e.g. dust, noise, drainage, surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc...etc...)	<b>MITIGATION TYPE</b> modify, remedy, control or stop (e.g. noise control measures, stormwater control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc...etc...) (e.g. modify through alternative method. Control through management and monitoring through rehabilitation.)	<b>POTENTIAL FOR RESIDUAL RISK</b>
Blasting	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Fly-rock</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> <li>• Surface water contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Dust control and monitoring</li> <li>• Noise control and monitoring</li> <li>• Access control.</li> <li>• Continuous rehabilitation.</li> <li>• Stormwater run-off control.</li> </ul>	Medium
Boreholes	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Dust control and monitoring</li> <li>• Noise control and monitoring</li> <li>• Continuous rehabilitation</li> </ul>	Medium
Chemical toilets	<ul style="list-style-type: none"> <li>• Soil contamination</li> <li>• Groundwater contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of toilets on regular basis.</li> <li>• Monitoring of groundwater quality.</li> <li>• Removal of toilets upon closure.</li> </ul>	Very low
Diesel tanks	<ul style="list-style-type: none"> <li>• Groundwater contamination</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of diesel tanks and bund walls.</li> <li>• Oil traps.</li> <li>• Groundwater quality monitoring.</li> <li>• Drip tray at re-fuelling point.</li> </ul>	Medium

<p>Excavations</p>	<ul style="list-style-type: none"> <li>• Surface disturbance</li> <li>• Dust</li> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> <li>• Surface disturbance</li> <li>• Surface water contamination</li> <li>• Erosion</li> </ul>	<ul style="list-style-type: none"> <li>• Immediately clean hydrocarbon spill.</li> <li>• Access control</li> <li>• Dust control and monitoring</li> <li>• Groundwater quality monitoring</li> <li>• Noise control and monitoring</li> <li>• Continuous rehabilitation</li> <li>• Stormwater run-off control</li> <li>• Immediately clean hydrocarbon spill</li> <li>• Drip trays</li> <li>• Rock stability control and monitoring</li> <li>• Erosion control</li> </ul>	<p>Medium</p>
<p>Generator</p>	<ul style="list-style-type: none"> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Access control</li> <li>• Maintenance of generator and bund walls</li> <li>• Noise control and monitoring</li> <li>• Oil traps</li> <li>• Groundwater quality monitoring</li> <li>• Immediately clean hydrocarbon spill</li> </ul>	<p>Medium</p>
<p>Office – mobile container</p>	<ul style="list-style-type: none"> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Immediately clean hydrocarbon spill</li> <li>• Rip disturbed areas to allow re-growth of vegetation cover</li> </ul>	<p>Very low</p>
<p>Processing plant</p>	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Noise</li> <li>• Groundwater contamination and usage</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Access control</li> <li>• Maintenance of processing plant</li> <li>• Dust control and monitoring</li> <li>• Groundwater quality and level monitoring</li> <li>• Noise control and monitoring</li> <li>• Drip trays</li> <li>• Stormwater run-off control.</li> <li>• Immediately clean hydrocarbon spills</li> <li>• Rip disturbed areas to allow re-growth</li> </ul>	<p>Medium</p>

		of vegetation cover	
Roads	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance of roads</li> <li>• Dust control and monitoring</li> <li>• Groundwater quality monitoring</li> <li>• Noise control and monitoring</li> <li>• Speed limits</li> <li>• Stormwater run-off control.</li> <li>• Erosion control</li> <li>• Immediately clean hydrocarbon spills</li> <li>• Rip disturbed areas to allow re-growth of vegetation cover</li> </ul>	Low
Salvage yard	<ul style="list-style-type: none"> <li>• Groundwater contamination</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Access control</li> <li>• Maintenance of fence.</li> <li>• Groundwater quality monitoring</li> <li>• Stormwater run-off control</li> <li>• Immediately clean hydrocarbon spill</li> </ul>	Low
Stockpile area	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Dust control and monitoring</li> <li>• Groundwater quality monitoring</li> <li>• Noise control and monitoring</li> <li>• Drip trays</li> <li>• Stormwater run-off control.</li> <li>• Immediately clean hydrocarbon spills</li> <li>• Rip disturbed areas to allow re-growth of vegetation cover</li> </ul>	Low
Washbay	<ul style="list-style-type: none"> <li>• Groundwater contamination and usage</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Soil contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Groundwater quality and level monitoring</li> <li>• Concrete floor with oil/water separator</li> <li>• Stormwater run-off control</li> <li>• Immediately clean hydrocarbon spills</li> </ul>	Low
Waste rock dumps	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Groundwater contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Dust control and monitoring</li> <li>• Groundwater quality monitoring</li> </ul>	Low

	<ul style="list-style-type: none"> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Noise control and monitoring</li> <li>• Stormwater run-off control.</li> <li>• Rip disturbed areas to allow re-growth of vegetation cover</li> </ul>	
Water tank	<ul style="list-style-type: none"> <li>• Groundwater abstraction and usage</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain water tanks and structures.</li> <li>• Groundwater levels and quality monitoring.</li> </ul>	Low
Weighbridge and weighbridge control room	<ul style="list-style-type: none"> <li>• Dust</li> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Access control</li> <li>• Maintenance of weighbridge</li> <li>• Dust control and monitoring</li> <li>• Noise control and monitoring</li> <li>• Groundwater levels and quality monitoring</li> <li>• Immediately clean hydrocarbon spill</li> <li>• Rip disturbed areas to allow re-growth of vegetation cover</li> </ul>	Low
Workshop – mobile containers	<ul style="list-style-type: none"> <li>• Groundwater contamination</li> <li>• Noise</li> <li>• Removal and disturbance of vegetation cover and natural habitat of fauna</li> <li>• Surface disturbance</li> </ul>	<ul style="list-style-type: none"> <li>• Access control</li> <li>• Concrete floor with oil/water separator</li> <li>• Maintenance of mobile containers</li> <li>• Noise control and monitoring</li> <li>• Groundwater quality monitoring</li> <li>• Immediately clean hydrocarbon spill</li> </ul>	Low



**(x) Other information required by the Competent Authority:**

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

**a. Impact on the socio-economic conditions of any directly affected person:**

(Provide the results of investigation, assessment and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as Appendix '7' and confirm that the applicable mitigation is reflected in 2.5.3, 2.11.6 and 2.12 herein.)

- Impact on landowner:  
Positive: Compensation of land lost to prospecting activities.  
Negative: Loss of agricultural land.
- Impact on other I&AP:
  - To be determined during consultation process. The results shall be included in the EIA/EMPR document.

**b. Impact on any national estate referred to in Section 3(2) of the National Heritage Resources Act:**

(Provide the results of investigation, assessment and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in Section 3(2) of the National Heritage Resources Act, 1999 (Act 25 of 1999) with the exception of the national estate contemplated in Section 3(2)(i)(vi) and (vii) of that Act, attach the investigation report as Appendix '8' and confirm that the applicable mitigation is reflected in 2.5.3, 2.11.6 and 2.12 herein.)

A specialist shall be appointed to conduct a palaeontological assessment. The findings of this report will be included in the EIA/EMPR document.

**(xi) Other matters required in terms of Sections 24(4)(a) and (b) of the Act:**

(The EAP managing the application must provide the Competent Authority with details, written proof of an investigation as required by Section 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives, as contemplated in sub-regulation 22(2)(h), exist. The EAP must attach such motivation as Appendix '9'.)

No viable alternative sites were identified for the following reason:

A detailed Site Plan cannot be provided in this early stage of the application process as the locality of the proposed boreholes and trenches is dependent on the results of the following:

- Reconnaissance visit;
- Desktop study; and
- Geological mapping

GEJ has considered the following:

- The Geological formation that supports the possibility that the minerals applied for could be found within the PR Area.
- The availability of farms within the area that is not already occupied by existing prospecting or mining rights.
- The availability of infrastructure, such as a road network, in the immediate surrounding area, which could be utilized to allow easy access to the site.

**(xii) Undertaking regarding correctness of information:**

I, T. Jooste, ID number 8201050097084, herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected Parties have been correctly recorded in the report.

\_\_\_\_\_  
Signature of EAP

Date: \_\_\_\_\_

**(xiii) Undertaking regarding level of agreement:**

I, T. Jooste, ID number 8201050097084, herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected Parties have been correctly recorded in the report.

\_\_\_\_\_  
Signature of EAP

Date: \_\_\_\_\_

**-END-**