mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

FINAL

BASIC ASSESSMENT REPORT

And

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

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

NAME OF APPLICANT: Valley Side Resources (Pty) Ltd

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FAX NO: (086) 480 7682

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FILE REFERENCE NUMBER SAMRAD: LP30/5/1/1/2/14433PR

Date: 13 May 2022

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1. IMPORTANT NOTICE

In terms of the National Environmental Management Act No.107 of 1998 as amended, a Basic Assessment process is required to obtain environmental authorization for the activities, as per the EIA Regulations (2014) promulgated in terms of NEMA, 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 (c) the competent Authority must check whether the application has considered any minimum requirements applicable or instructions or guidance provided by the competent authority to the submission of applications.

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

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

2. Objective of the basic assessment process

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

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

(b) identify the alternatives considered, including the activity, location, and technology alternatives;

(c) describe the need and desirability of the proposed alternatives,

(d) through the undertaking of an impact and risk assessment process inclusive of cumulative impacts which focused on determining the geographical, physical, biological, social, economic, heritage, and cultural sensitivity of the sites and locations within sites and the risk of impact of the proposed activity and technology alternatives on these aspects to determine:

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

  (ii) the degree to which these impacts—

    (aa) can be reversed;

    (bb) may cause irreplaceable loss of resources; and

    (cc) can be managed, avoided or mitigated;

(e) through a ranking of the site sensitivities and possible impacts the activity and technology alternatives will impose on the sites and location identified through the life of the activity to—

  (i) identify and motivate a preferred site, activity and technology alternative;

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

  (iii) Identify residual risks that need to be managed and monitored.

PART A

SCOPE OF ASSSSMENT AND BASIC ASSESSMENT REPORT

1. CONTACT PERSON AND CORRESPONDENCE ADDRESS

1.1. Details of

1.1.1. Details of the EAP

Company	Crysbol (Pty) Ltd
Contact Person	Mr. Thendo Nelwamondo
SACNASP Membership No	400299/14
Tel No	+27 (011) 038 0131
Cell No	+27 (073) 227 0782
Fax No	+27 (086) 710 2600
E-mail address	crysbol.thendo@gmail.com
Address	45 Mozart Lane, Sagewood, Midrand, Johannesburg, Republic of South Africa

a) Expertise of the EAP

The qualifications of the EAP

(With evidence).

Mr Thendo Nelwamondo has over 6 years of experience in the environmental management field. He started his career in the area of Environmental Impact Assessment (EIA) as an Environmental consultant at Kimopax Pty (Ltd). Mr Nelwamondo offer technical input for projects in the environmental management field, specialising in Strategic Environmental Advice, Environmental Impact Assessment studies, environmental permitting, public participation, Environmental Management Plans and Programmes, environmental policy, strategy and guideline formulation, and integrated environmental management.

Mr Nelwamondo Thendo place attention on integration of the specialist environmental studies, strategic assessment, and providing practical and achievable environmental management solutions and mitigation measures. Responsibilities for environmental studies include project management; review and manipulation of data; identification and assessment of potential negative environmental impacts and benefits; review of specialist studies; and the identification of mitigation measures. Compilation of the reports for environmental studies is in accordance with all relevant environmental legislation

Refer to for a copy of the EAP's Curriculum Vitae.

1.1.2. Details of the Applicant

Company	Valley Side Resources (Pty) Ltd
Name of the Project	Brakfontein Prospecting
Responsible Person	Mashapha Nthupheni
Tel No.	+27 82 694 7300
E-mail address	nthupheni.mashapha@gmail.com
Postal Address	P.O Box 75, PostNet, Thavhani Mall, Limpopo Province

1.2 LOCATION OF THE OVERALL ACTIVITY.

Table 1: Location Details

Farm Name:	Remaining Extent of Portion 4, Portion 12 and 13 of Brakfontein 152 KS Farm
Application area (Ha)	552 Ha
Magisterial district:	Waterberg
Distance and direction from nearest town	17 km northeast of Roedtan Town and 35 km southeast of Mokopane Town.
21-digit Surveyor General Code for each farm portion	T0KS00000000015200004 T0KS00000000015200012 T0KS00000000015200013

Land Tenure and Use of Immediate and Adjacent Land

Land use is determined by several factors. These include the land use determined for the brakfontein prospecting Project as a whole, the project area, land use and adjacent land specifically, and the associated issues of climate, resources, economic activity, topography, etc. Land use for the properties within and around the proposed project includes but not limited to local roads, agricultural, mining and farmstead.

1.3 LOCALITY MAP

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

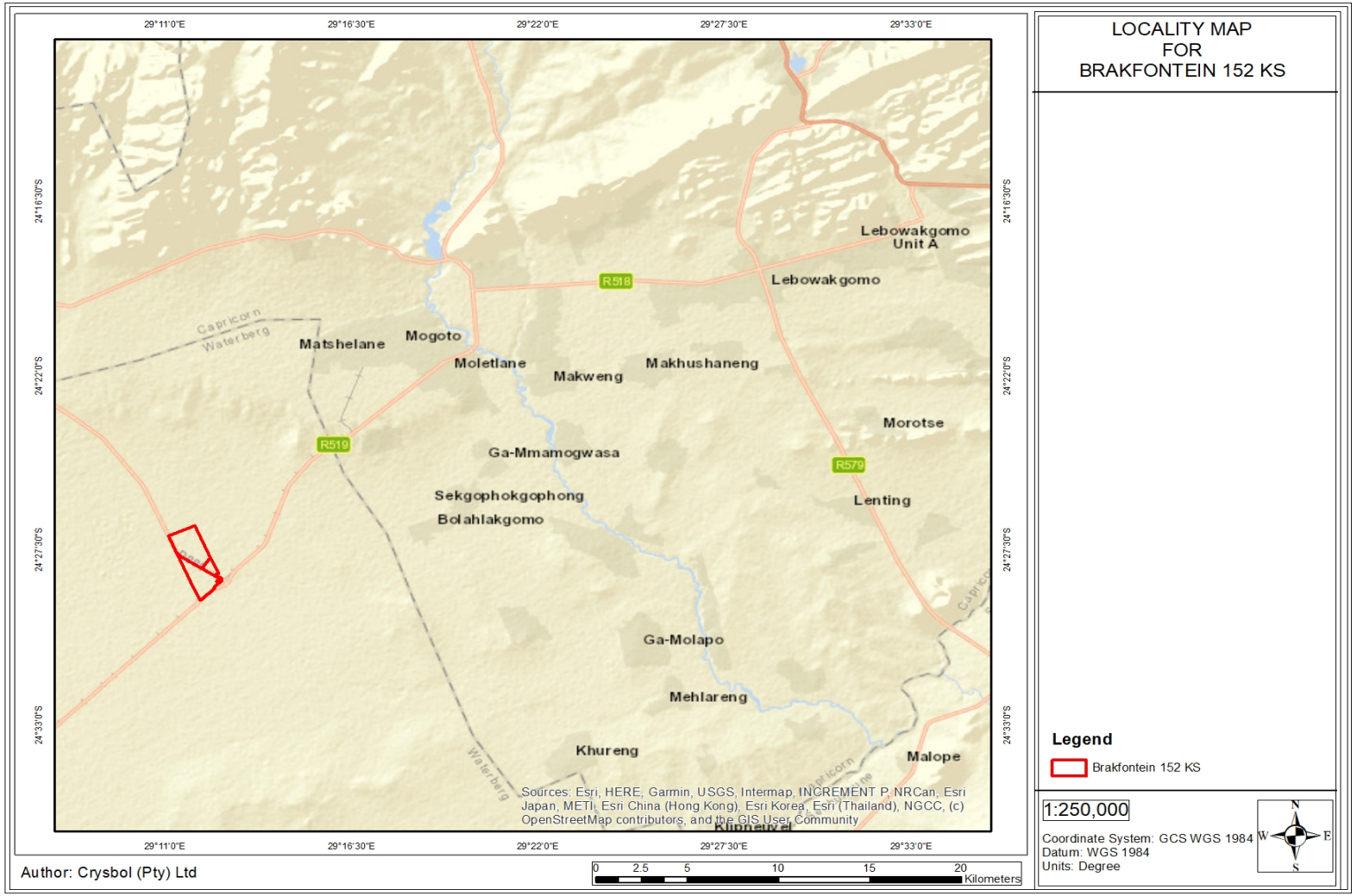

Figure 1: Locality map for Jannelspan 39 farm

2. DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY.

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

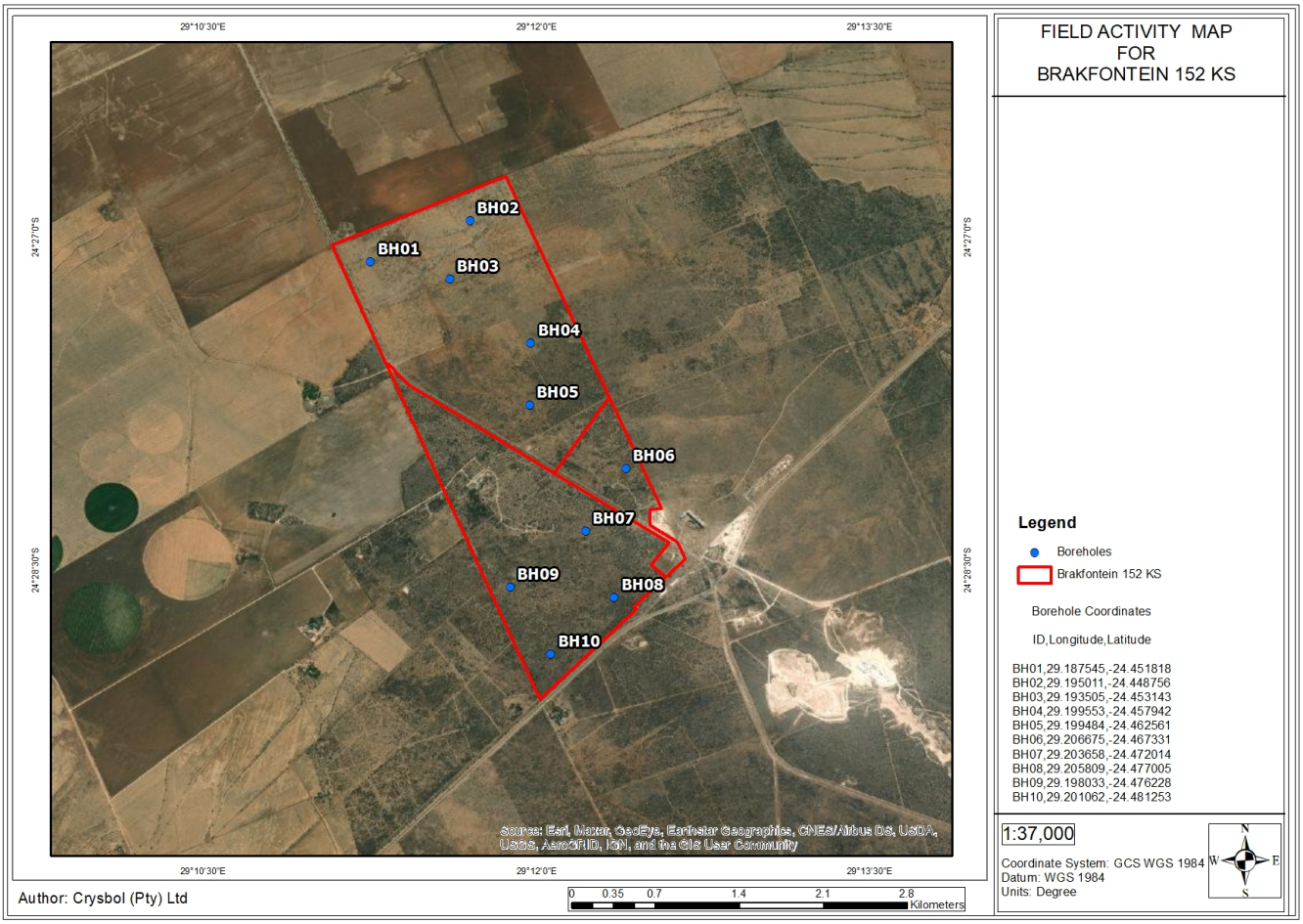

Figure 2: Location of proposed drilling points.

Ten (10) boreholes will be drilled. Location of the boreholes is listed below

Table 2: Borehole Coordinates

Borehole ID	Londitude	Latitude
BH01,	29.187545,	-24.451818
BH02,	29.195011,	-24.448756
BH03,	29.193505,	-24.453143
BH04,	29.199553,	-24.457942
BH05,	29.199484,	-24.462561
BH06,	29.206675,	-24.467331
BH07,	29.203658,	-24.472014

BH08, 29.205809, -24.477005

BH09, 29.198033, -24.476228

BH10, 29.201062, -24.481253

2.1 LISTED AND SPECIFIED ACTIVITIES

Table 3: Listed and specified activities.

NAME OF ACTIVITY	Aerial extent of the Activity Ha or m²	LISTED ACTIVITY	APPLICABLE LISTING NOTICE
Prospecting Activities within the Prospecting Right Area, Using Desktop Study, Geological Mapping, Geophysical Survey, Diamond Core Drilling together with all associated infrastructure and activities. These include site establishment (access to site and campsite), pegging of drilling sites, drilling of exploration boreholes with associated sumps, logging and sampling of drilled cores and site rehabilitation.	552 Hectares (Prospecting Right Area)	Activity 20 of Listing Notice 1: 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 associated infrastructure, structures and earthworks, directly related to prospecting of a mineral resource, including activities for which an exemption has been issued in terms of section 106 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002).	GNR 927, LN 1

2.2 DESCRIPTION OF THE ACTIVITIES TO BE UNDERTAKEN

Valley Side Resources (Pty) Ltd proposes to conduct prospecting activities on Remaining Extent of Portion 4, Portion 12 and 13 of Brakfontein 152 KS Farm, located within Waterberg district Municipality. The commodity of interest in this regard is Limestone and the prospecting will focus mainly on such a commodity.

2.2.1 Prospecting Method to be used

The prospecting activities to be undertaken include non- invasive and invasive methods, thus methods that do not cause harm to the environment and that, which causes harm respectively. Non- invasive method encompasses phases such as phase 1 and yet invasive collate phases from 2 and 3. The conduction of these activities will be conducted in phases, with the succeeding phase depending on the results and success of preceding phase.

The planned Invasive Phase will involve the drilling of the sited drilling boreholes using a diamond core drilling technique. A sump will be constructed in each drilling borehole for the collection of water from the drilling operations. The sump will be constructed to be one (1) square meter in size and have a maximum depth of one (1) metre. Any soils removed from the sump (approximately one cubic meters) will be placed adjacent the drilling site and used for rehabilitation of the site. Boreholes will be drilled at pre-planned sites. The boreholes will be drilled to intersect the expected mineralization zone and will be logged by the geologist. The intersected mineralized zone will be sampled and sent to the laboratory for quality determination. This data will form the basis for the geological modelling and financial evaluation. The current estimated life of the proposed prospecting activities is five (5) years.

Table 4: Equipment's to be used or needed

Equipment and/or Technology to be used	1 drill rig mounted on a 10-tonne truck or trailer
	2X (4X4) Bakkies
Materials required	Diesel
	Grease
	Hydraulic Oil
	One 50 kg Bag of cement/ Expansion foam per borehole
	Picks, shovels,
Spillage control	Dip trays
Sanitation Facility	Chemical toilets
Waste Management	Waste skip and Bins
Safety	Safety Boards

2.2.2 Non-Invasive: Desktop Studies (Data Acquisition)

2.2.2.1 Data gathering

Applicable data concerning the potential of the proposed prospecting area will be sourced from institutions such as the Council for Geosciences, Universities and other libraries and previous explorers may be approached with a view to obtaining their results. During this phase, the photo geological and satellite interpretations will also be undertaken and the data collecting during Basic Assessment Process will be utilised.

2.2.2.2 Data Interpretation

The interpretation of data will result in compiling a preliminary potential project report. The report will give indication as to what processes can be prioritised and followed in order to complete the proposed prospecting activities.

2.2.2.3 Decision to commence with prospecting activities

Once all factors are gathered, physical inspection of the terrain will be conducted to verify certain aspects. The important point to note is that a decision on whether or not to proceed with prospecting depends not only on the scientific and reliability of the methods under consideration, but also upon many less tangible factors, such as restrictions that might be imposed by the relevant Department when granting a prospecting right and an environmental authorisation.

2.2.3 Invasive: Construction Phase

2.2.3.1 Establishment of access to the Project site

There will be no need to establish an access road to site as an existing Regional road, R519 road that crosses the proposed farms, including the private farm roads and tracks lie in close proximity to the proposed prospecting area. Where necessity arises for access to the drilling sites, tracks will be established as access to the drilling site. These tracks will be established to be more than 500 meters away from any sensitive landscapes. The tracks will also be sited away from protected areas. Vegetation clearance will be avoided during the establishment of the access tracks.

2.2.3.2 Detailed Site Survey and Investigation

Demarcation of sensitive and protected areas will be conducted by physical survey of the proposed area by a suitability qualified person. This should be done before establishment of access to the site, campsites and drilling of exploration boreholes.

2.2.3.3 Pegging of Drill Sites

All exploration borehole sites will be staked by a suitably qualified person. The sites will be plotted according to the determined borehole layout as shown in figure 2 above.

2.2.4 Operational Phase

2.2.4.1 Diamond Drilling for boreholes and sump construction

Geological boreholes will be drilled on a determined grid of 350m-1000m apart. The depth of the borehole is planned to a maximum of 100m and a diamond core of 60 mm will be used. During drilling of each borehole, a sump of approximately 1.0 x 1.0 x 1.0 m will be excavated for collecting of excess muds (water) from the drilling operation.

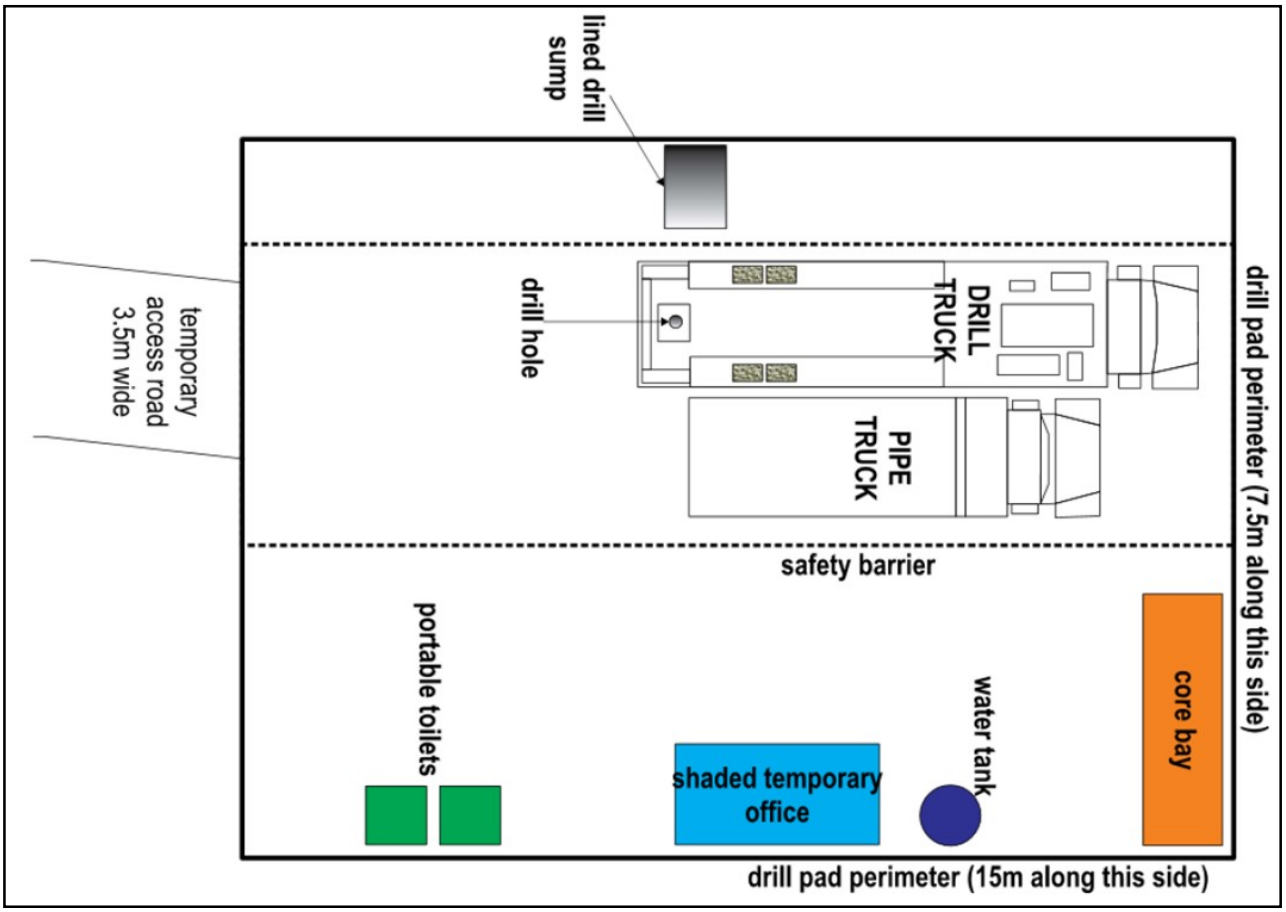

Figure 3: Schematic diagram of drilling layout

Figure 4: Typical Drilling site

2.2.4.2 Access Roads

Existing access roads and tracks will be used. Where there is no access road, tracks will be created to access the drilling site.

2.2.4.3 Campsite

The drilling team will be housed on a static camp site close that will be erected within the project area. This campsite will be temporary as it will only be on site during drilling phase of the project. The campsite will be on the area of 60m^2.

2.2.4.4 Ablution

Mobile ablution systems will be used. This will be located away from the drilling site to avoid any leakage that might be caused due to drilling towards the drilled boreholes. The ablution system will only occupy the total area of 20m^2. The water to be used will be transported to the site by water tanker and only 2200l of water will be stored on site on a tank.

2.2.4.5 Hydrocarbon storage

The hydrocarbons will be stored on site and only a maximum of 50l of diesel and oil will be stored during prospecting activities. This will be stored on a certified drum to avoid any spillage on the ground. The drums will be monitored twice a day throughout the prospecting activities.

2.2.4.6 Topsoil Storage Site

The tops and sub soils removed from the sump and drilling boreholes will be stockpiled in close proximity to the sump. The sumps will be backfilled manually by spade, immediately the drilling and sampling of boreholes is completed.

2.2.4.7 Vehicle and machinery storage

Only one rig will be utilised during prospecting activities of which will be mounted on a 10 tonne truck. This rig will be left on site throughout the prospecting activities and the space that it will utilise during storage will be 9300mm x 2500mm.

2.2.4.8 Logging and Sampling of core

This involves the physical description of the rocks intersected by the drilling process. The interpretation of these rock descriptions will assist in establishing the general stratigraphy of the area. Sampling will be taken at the desired horizons and sent to the laboratory for analyses.

2.2.4.9 Site Rehabilitation

Concurrent rehabilitation (Plugging and reseeding) of disturbed areas will be undertaken as drilling continues. Vegetation similar to that surrounding area will be used, or if necessary the opinion of an Ecologist will be sought for rehabilitation.

2.2.5 Decommissioning phase

2.2.5.1 Final Rehabilitation

Except for farm roads, no tracks and infrastructure related to the prospecting operation will remain in place after the decommissioning phase. Where tracks have resulted in more damage, such tracks will be ripped at 90° to the inherent slope, and seeded with the recommended seed mix. The sumps will be rehabilitated in such a manner to return the area to its pre-drilling environment.

Post closure, the prospecting area will consist of re-vegetated areas with vegetation cover comparable to the surrounding areas. This will be unaffected by the prospecting activities. No prospecting related infrastructure will remain on the prospecting site. The area will conform to the pre-prospecting topography. The areas affected by prospecting will be stable and erosion free.

2.2.5.2 Pre-feasibility Study

This involves the compilation of a final geological competent person's report, reserve determination and pre-feasibility studies.

2.2.5.3 Mining feasibility study

This involves the conducting of a mining feasibility study, market research, sales agreements etc.

2.2.6 After Closure Phase

The rehabilitated area will be monitored until closure of the site which is for approximately one (1) year. After the decommissioning of the site and if it can be determined that the site is stable, an environmental authorisation for the decommissioning of the site and a closure will be applied for in terms of the relevant laws. The borehole layout has been determined and is shown in Figure 2, and this will not be changed based on the fact that it has been determined taking into consideration of the environmental aspect within the project area.

2.3 POLICY AND LEGISLATIVE CONTEXT

Table 5: Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT	REFERENCE WHERE APPLIED	HOW DOES THIS DEVELOPMENT COMPLIY WITH AND RESPOND TO THE LEGISLATION AND POLICY CONTEXT?
National Environmental Management Act, 1998	This entire report is prepared as part of the Application for Environmental Authorisation under the NEMA.	In terms of the National Environmental Management Act an Application for Environmental Authorisation subject to a Basic Assessment Process has been applied for.
National Water Act, 1998	Due to the nature of the proposed prospecting activities, it is not anticipated that Section 21 water uses will be triggered. Therefore, there is no requirement to apply for Water Use Authorisation in terms of the NWA.	In terms of the National Water Act, no Water Use License has been applied For.

Mineral and Petroleum Resources Development Act, 2002	This entire report is prepared as part of the Prospecting Right Application under the MPRDA.	In terms of the Mineral and Petroleum Resources Development Act a Prospecting Right Application has been applied for.
Strategic Development Framework (SDF)	Alternatives	In terms with the SDF of the Local municipality, various strategies and associated policies should be adopted to ensure effective spatial development. In terms of Section 5.1 of the SDF the municipality must provide alternative means of support for rural /informal population to decrease dependence on the environment and subsistence agriculture. For this purpose, the following policies are adopted: Maximize economic benefit from mining industrial, business, agricultural and tourism development within the area Promote a climate for economic development. Improve public and investor

		confidence in the region through crime reduction and Infrastructure development.
National Environmental Management Air Quality Act (Act No. 39 of 2004, Government Gazette No. 27318) (NEMAQA	Prospecting Activities	Standards for particulates and dust used in Impact Assessment to regulate the concentration of a substance that can be tolerated without any environmental deterioration
Conservation of Agricultural Resources Act, 1983	Prospecting activities	The project should promote the conservation of soil, water and vegetation

2.4 NEED AND DESIRABILITY OF THE PROPOSED ACTIVITIES.

In terms of the EIA Regulations the need and desirability of any development must be considered by the relevant competent authority when reviewing an application. The need and desirability must be included in the reports to be submitted during the environmental authorisation application processes. This section of the BAR and EMPr will indicate the need and desirability for the proposed prospecting project.

Assessment of the geological data available has determined that the area in question may have Limestone reserves. In order to ascertain the above and determine the nature, location and extent of the Limestone reserves within the proposed area, it will be necessary that prospecting activities be undertaken. The prospecting activities will also determine if there are any features that may have an impact on the economic extraction of these minerals.

The data obtained from the prospecting of Limestone (if is discovered) will be necessary to determine how and where these minerals will be extracted and how much economically viable reserves are available within the proposed prospecting area. Should Limestone be found in the project area, Valley Side Resources (Pty) Ltd will be able to use the available reserves to apply for a mining right should they prefer to continue with the project.

Valley Side Resources (Pty) Ltd expects that substantial benefits from the project will accrue to the immediate project area, the sub-region and the province of Limpopo. These benefits must be offset against the costs of the project, including the impacts to land owners.

Further to the above, it has been determined that the prospecting project activities will not have a conflict with the spatial development plans, the integrated Development Plans, the Environmental Management framework, existing industrial and commercial development of the Local Municipality.

The applicant further commits to ensure their contribution to environmental education and to their employees during the project life. The employees will be made aware of work that may be harmful to their health and the environment and of any work posing danger. This is undertaken in terms of the Mine Health and Safety Act, 1999 (Act 25 of 1999) and their regulations, which gives the employees the right to refuse work that is dangerous. The applicant will respect decisions of employees regarding the above and is committed to the protection of employees against any dangerous working environment.

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

Preferred Site

The proposed prospecting area is targeted as, historically several Limestone occurrences are known in the area. There are also various Mafic and Ultramafic volcanic rocks within the area under application. The site therefore regarded as preferred site and alternative site is not considered.

According to the desktop studies conducted, the surrounding area has been mined for many years. Limpopo Limestone is often found in relatively thin layers.

The proposed method of exploration which will be mainly drilling of planned boreholes allows easy access of drill rigs to the site using existing roads and does not require extensive machinery or any development for new structures as compared to other methods, making it feasible for one drill rig to be utilised for this type of project. This also reduces the overall costs, environmental and social impact associated with the exploration processes, thus allowing financial viability in prospecting activities.

The project will result in several benefits both at the local and national levels. The local economy will also be boosted by the creation of job opportunities. Further to this, the national economy is also expected to benefit through the export of the final product resulting in foreign revenue.

3.1 CONSIDERATION OF ALTERNATIVES

Technologies Alternatives

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

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

Due to the nature of the proposed prospecting activities future land use alternatives will not be compromised. Once available reserve has been confirmed a comprehensive social and Environmental Impact Assessment will be required (in accordance with legislation), during which

time alternative land use to mining would be investigated. All infrastructures will be temporary and/or mobile.

No Go Option

The 'no-go' alternative is the option of not undertaking prospecting activities on the project site. The no-go option assumes the site remains in its current state. The no go alternative would result in no impacts on the social and biophysical environment.

Valley Side Resources (Pty) Ltd intends on exploring the proposed area in order to determine availability of Limestone ore. Should this ore found at the prospecting area, the proposed Prospecting Right area will therefore achieve this Company long term objective of owning and operating its own mine to benefit the local community where the operation take place. In addition to the above, the proposed prospecting project will on its own result in the creation of employment opportunities and will also result in the support of local businesses.

Accordingly, the consequences of not proceeding with the proposed project will have a detrimental impact on the potential positive impact this project may have on the current and future labour force and the labour to be used for the prospecting project. The no go alternative is therefore not considered desirable at a local, regional and national scale.

3.2 DETAILS OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED AND RESULTS THEREOF

Public participation is the cornerstone of any EIA process. The principles of the NEMA govern many aspects of EIA's, including public participation. The general objectives of integrated environmental management laid down in the NEMA include to "ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment". The National Environmental Management Principles include the principle that "The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary to achieve equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured", which basically means that the person responsible for the application (EAP) must ensure that provision of sufficient and transparent information on an ongoing basis to stakeholders are made to allow them to comment, and to ensure that the participation of previously disadvantaged people like women and the youth are undertaken.

In terms of the EIA Regulations, 2014, when applying for environmental authorisation, the Environmental Assessment Practitioner managing the application must conduct at least a public participation process where all potential or registered interested and affected parties, including the competent authority, are given a period of at least 30 days to submit comments on each of the basic assessment reports, EMPr, scoping report and environmental impact assessment

report, and where applicable the closure plan. In this case a Basic Assessment Report (BAR) is considered.

This section of the BAR and EMPr will give an explanation of the public participation process to be taken in order to comply with the above-mentioned requirements. A number of public participation guidelines were published in a bid to assist persons responsible for the environmental authorisation applications. As much of the available guidelines were used in determining the public participation process, in guiding the public participation process of the proposed project.

Valley side Resources (Pty) Ltd is applying for an environmental authorisation for the proposed Prospecting project. The application for the environmental authorisation is undertaken in terms of the process as laid out in part 2 of Chapter 4 under the NEMA EIA Regulations, 2014. The abovementioned regulations require that an applicant for an environmental authorisation submit a BAR and EMPr to the competent authority after having subjected the reports to a public participation process. In view of the above, a public participation process was initiated for the proposed prospecting project. The public participation process for the proposed project is designed to provide sufficient and accessible information to interested and affected parties (I&APs) in an objective manner to assist them to:

- raise issues of concern and make suggestions for enhanced benefits;
- contribute local knowledge and experience;
- verify that their issues have been captured;
- verify that their issues have been considered in the technical investigations; and
- comment on the findings of the EIA.

The following have been conducted in undertaking of the public participation process for the proposed project.

Identification of Stakeholders

To ensure a proper representation of stakeholders interested in or affected by the proposed, the following identification methods were used to develop a stakeholder database:

- Conducting desktop searches in and around the project to verify landownership and obtain contact details;
- Responses received from newspaper advertisements and site notices;
- Responses from distribution of the Background Information Document (BID); and
- And one-on-one consultations with stakeholders to identify additional I&APs.

Stakeholders for the proposed project are grouped into the following categories:

- Government: National, Provincial, District and Local authorities;
- Landowners: Directly affected and adjacent landowners;
- Land occupiers: Directly affected and adjacent land occupiers;
- Communities: Surrounding communities;
- Non-Governmental Organisations (NGOs): Environmental and social organisations;
- Agriculture: associations or organisations focussed on agricultural activities; and
- Business: small medium enterprises and formal organisations.

Please refer to stakeholder database has been compiled (refer to Appendix A).

Public Participation Materials

Considering the legislative requirements and good practice, the following methods have been implemented to disseminate information to stakeholders about the proposed project. The various PP materials used during announcement of the proposed project have been included as Appendices A.

Background Information Document (BID): includes the location and a description of the proposed project, the legislative processes and requirements that will be followed, the specialist studies to be conducted, the competent authorities, and the consultation and registration process including contact details of the responsible person representing the EAP.

Newspaper Advertisement: An English newspaper advert was placed in one local newspaper. The advert included a brief project description, information about the required legislation, the competent authorities and details of the appointed EAP.

Site Notices: English site notices were put up at various places. The site notices contained a brief project description, information about the required legislation, the competent authorities and details of the EAP.

Notice Letter: a letter was sent in English which contained information about the proposed project, applicable legislation and competent authorities inviting everyone to register as interested and affected parties with regard to the project.

Comment Sheet: A Registration and Comment Sheet was also provided for stakeholders to use for formal registration as I&APs or to submit comments.

Consultation with Stakeholders

Telephonic consultations: various telephonic consultations were conducted to directly affected landowners, adjacent landowners, and departments.

Written comments: All comments received via email, mail or telephonically have been included into the Comment and Response Report (CRR) (see Appendix D). Stakeholder comments will be closely considered and addressed, where applicable, by the project team.

Registration and BAR phase

The potential Interested and affected parties (I&AP's) were given 30 days to register as interested and affected parties and to comment on the draft BAR and EMPr. Registration and comments process for all parties will be provided with enough time (at least 30 days) to comment on the proposed project.

3.2.1 Registered Interested and affected parties

The following **Table 6** shows the registered interested and affected parties for the Prospecting project:

Table 6: List of Registered Interested and Affected Parties

Full Names	Farm/Organization	Email Address	Contact Details

3.2.2 Summary of issues raised by I&APs

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

Table 7: Summary of issues raised by I&AP's

Interested and Affected Parties List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.		Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issues and or response were incorporated.
AFFECTED PARTIES					
Landowner/s	X				
	X				
Landowners or lawful occupiers on adjacent properties	X				

Municipality	X				
Organs of state (Responsible for infrastructure that may be affected Roads Department, Eskom, Telkom, DWA e					

Dept. Land Affairs					
Dept. Environmental Affairs					
Other Competent Authorities affected					
	X				
	X				
<u>OTHER AFFECTED PARTIES</u>					

INTERESTED PARTIES				

3.3 THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE ALTERNATIVES.

(The environmental attributed described must include socio-economic, social, heritage, cultural, geographical, physical and biological aspects)

3.3.1 BIOPHYSICAL ENVIRONMENT

3.3.1.1 Climate

In general, the area normally receives about 481mm of rain per year, with most rainfall occurring during summer. It receives the lowest rainfall (0mm) in June and the highest (95mm) in January. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for the area range from 19.9°C in June to 28.8°C in January. The region is the coldest during July when the mercury drops to 2.7°C on average during the night..

3.3.1.2 Vegetation

The assessment of the project area has delineated a number of habitats for the project area. Topographic features were the primary consideration for the delineation of the various units. The above-mentioned features have an effect on the habitat type in isolation and in conjunction with each other. The study region is further characterised by the flora of the savannah biome with spatial pattern coincides with vegetation of the Springbokvlakte Thornveld (SVcB 15).

outcrops

- **Springbokvlakte Thornveld (SVcb 15)**

The springbokvlakte thornveld is the low thorn savannah dominated by Acacia species or shrubby grassland with a very low shrub layer. Occurs on flat to slightly undulating plains. Very scattered alien plants over wide areas. There is one central bushveld endemic species growing in this area.

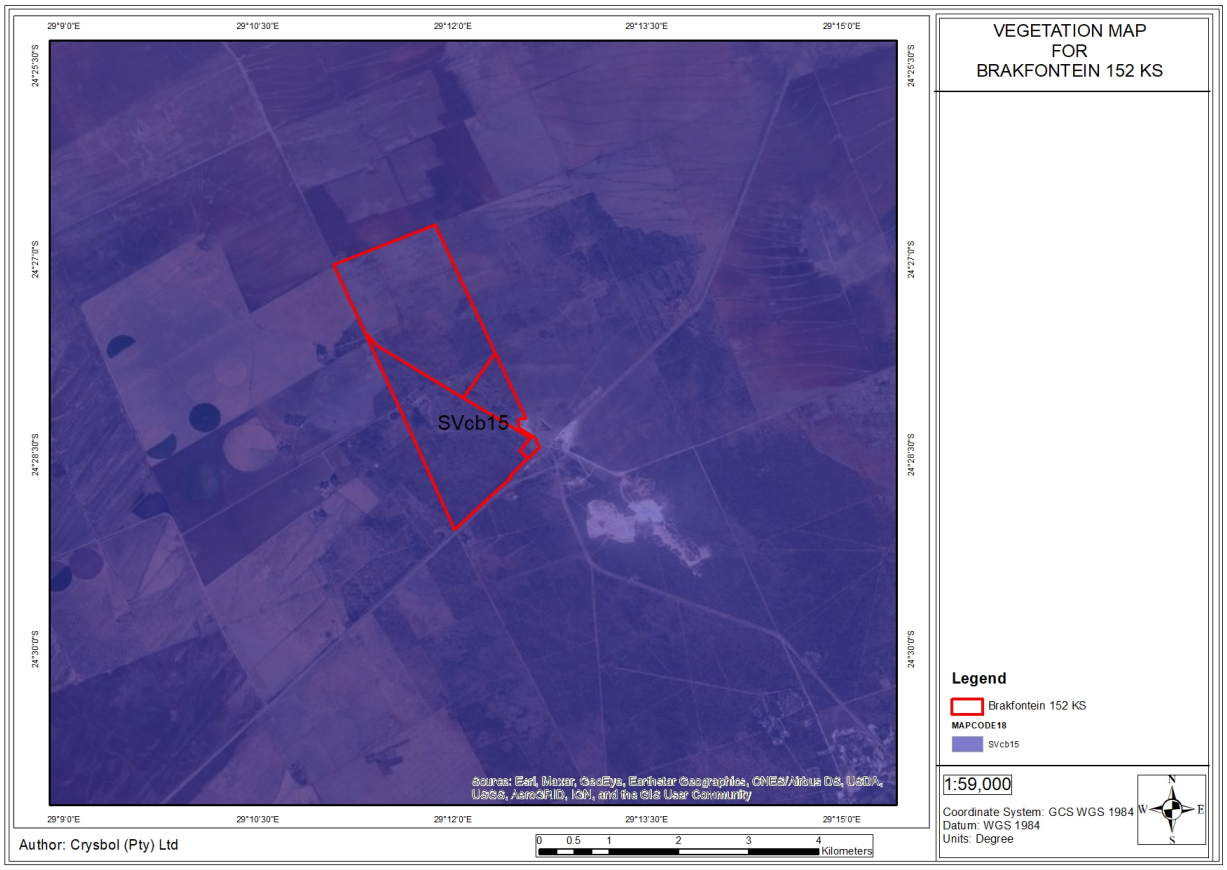

Figure 5: Vegetation map

3.3.1.3 Mining and Biodiversity Guidelines

The Mining and Biodiversity Guidelines (2013) was developed by the Department of Mineral Resources, the Chamber of Mines, the South African National Biodiversity Institute and the South African Mining and Biodiversity Forum, with the intention to find a balance between economic growth and environmental sustainability. The Guideline is envisioned as a tool to "foster a strong relationship between biodiversity and mining which will eventually translate into best practice within the mining sector. In identifying biodiversity priority areas, which have different levels of risk against mining, the Guideline categorizes biodiversity priority areas into four categories of biodiversity priority areas in relation to their importance from a biodiversity and ecosystem service point of view as well as the implications for mining in these areas:

- Legally protected areas, where mining is prohibited.
- Areas of highest biodiversity importance, which are at the highest risk for mining.
- Areas of high biodiversity importance, which are at a high risk for mining.
- Areas of moderate biodiversity importance, which are at a moderate risk for mining.

According to the Mining and Biodiversity Guidelines (2013), the project area is not classed as being of significant biodiversity importance and does not represent a risk to mining.

3.3.1.4 Geology

The project area comprises of various geological units, lithology, formations and geological groups, which are commonly known for formation of Limestone mineral as illustrated on the Geological Map presented below. The A mafic mineral or rock is a silicate mineral or igneous rock rich in magnesium and iron. Most mafic minerals are dark in color, and common rock-forming mafic minerals include olivine, pyroxene, amphibole, and biotite. Common mafic rocks include basalt, diabase and gabbro. Mafic rocks often also contain calcium-rich varieties of plagioclase feldspar. Mafic materials can also be described as ferromagnesian

Chemically, mafic rocks are enriched in iron, magnesium and calcium and typically dark in color. In contrast, the felsic rocks are typically light in color and enriched in aluminium and silicon along with potassium and sodium. The mafic rocks also typically have a higher density than felsic rocks. The term roughly corresponds to the older basic rock class

Mafic lava, before cooling, has a low viscosity, in comparison with felsic lava, due to the lower silica content in mafic magma. Water and other volatiles can more easily and gradually escape from mafic lava. As a result, eruptions of volcanoes made of mafic lavas are less explosively violent than felsic-lava eruptions. See figure 6 below.

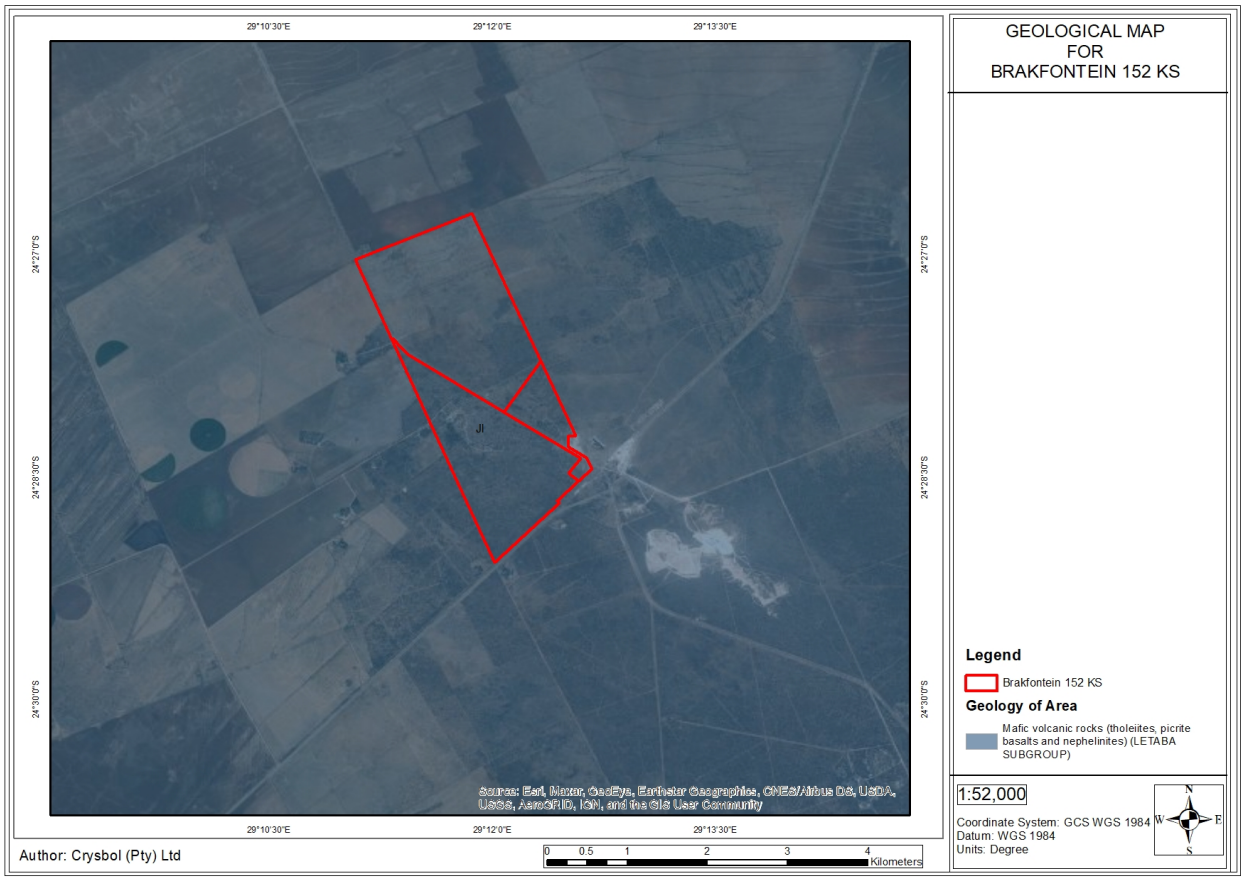

Figure 6: Geological map

3.3.1.5 Soil

The prospecting right application area is associated with class S13 which covers the proposed site that is characterised by residual soil, excessive drainage, high erodibility, low natural fertility. The Lithosoil are dense and haven't been eroded or transported from the parent rock.

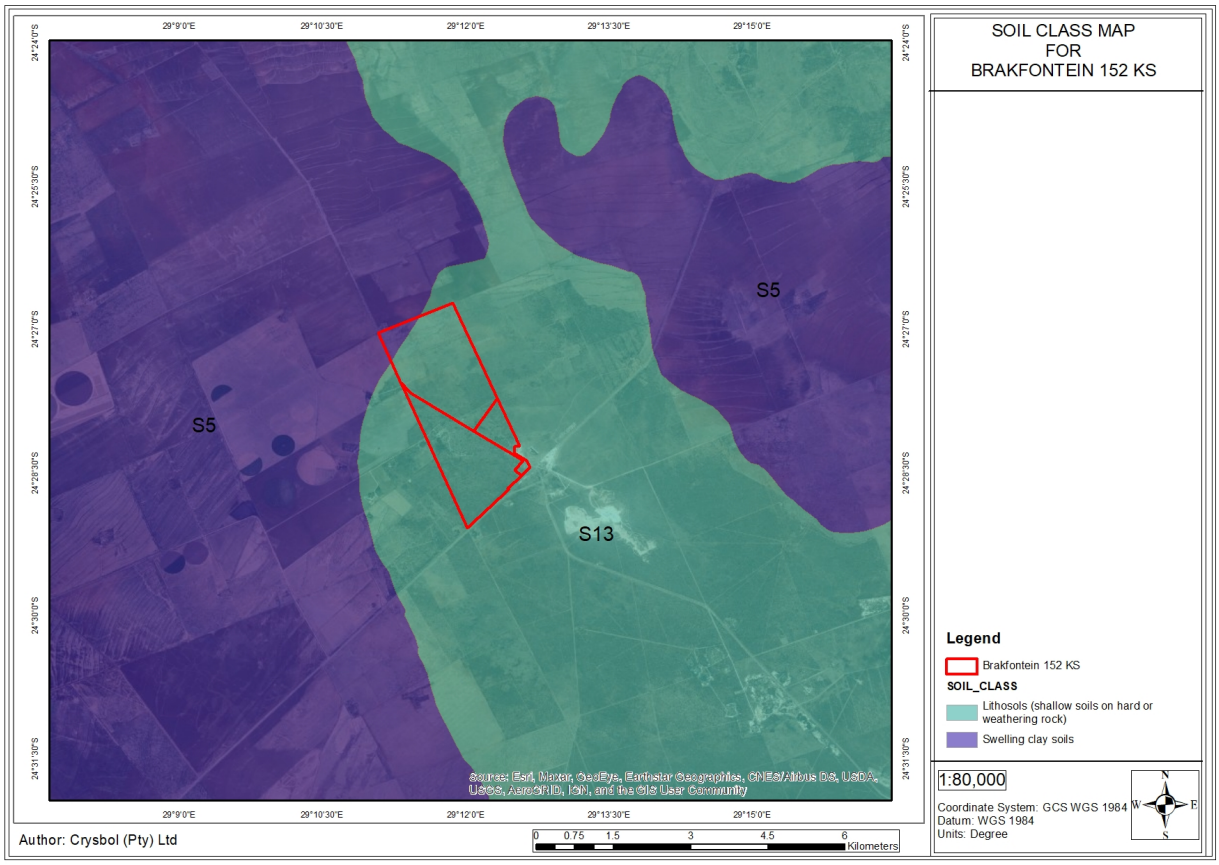

Figure 7: Soil map

3.3.1.6 Surface water

There is no surface water within the prospecting right. Water ponds were identified outside the prospecting area in more than 4km from the prospecting area. The surface in those areas will not be impacted by prospecting activity that will take place within the Brakfontein 152 prospecting project.

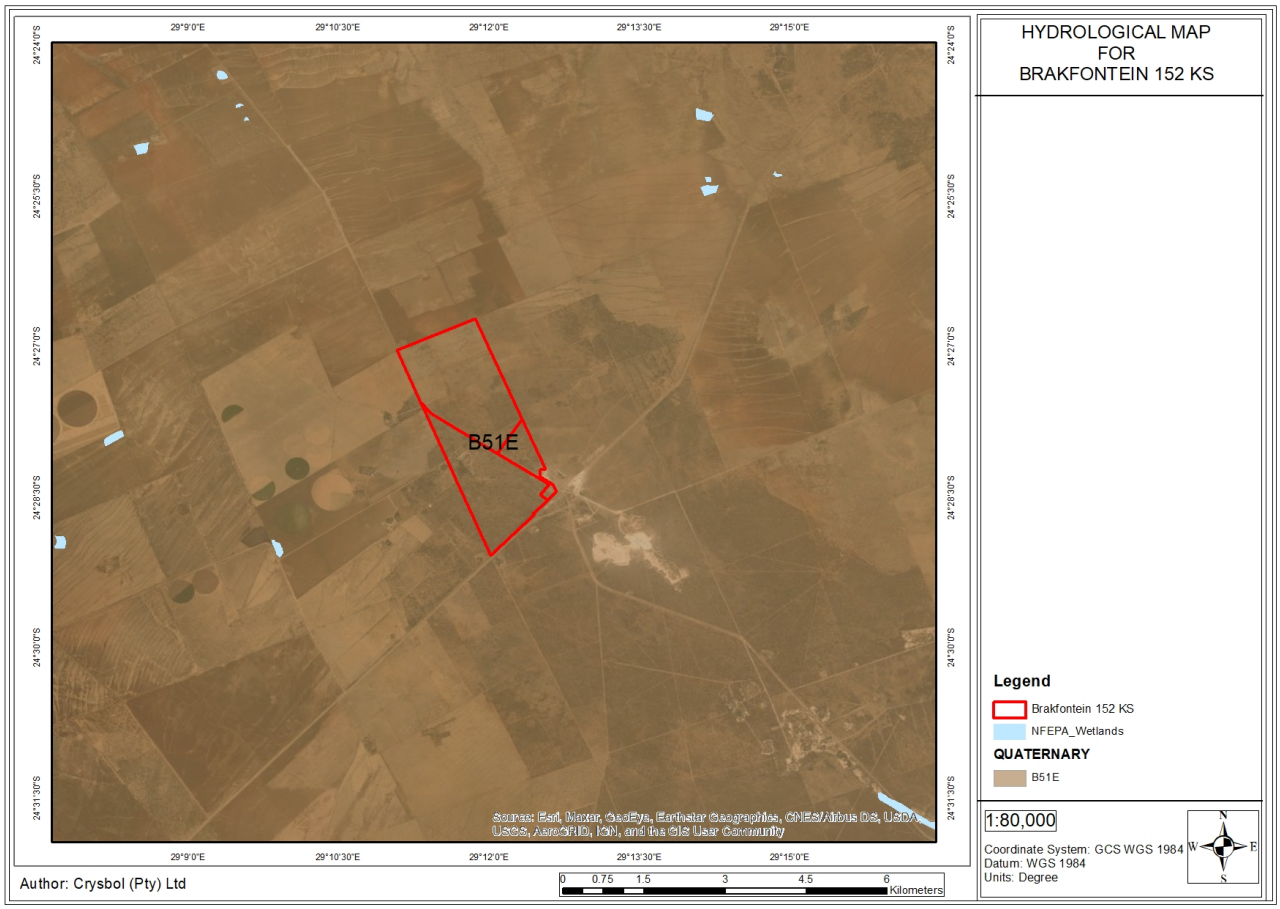

Figure 8: Surface hydrology map

3.3.1.7 Topography

The proposed project is in an area characterized by gently to moderately undulating landscape. The elevation ranges between 933m of a minimum level, 947m at an average level and a maximum of 959m.

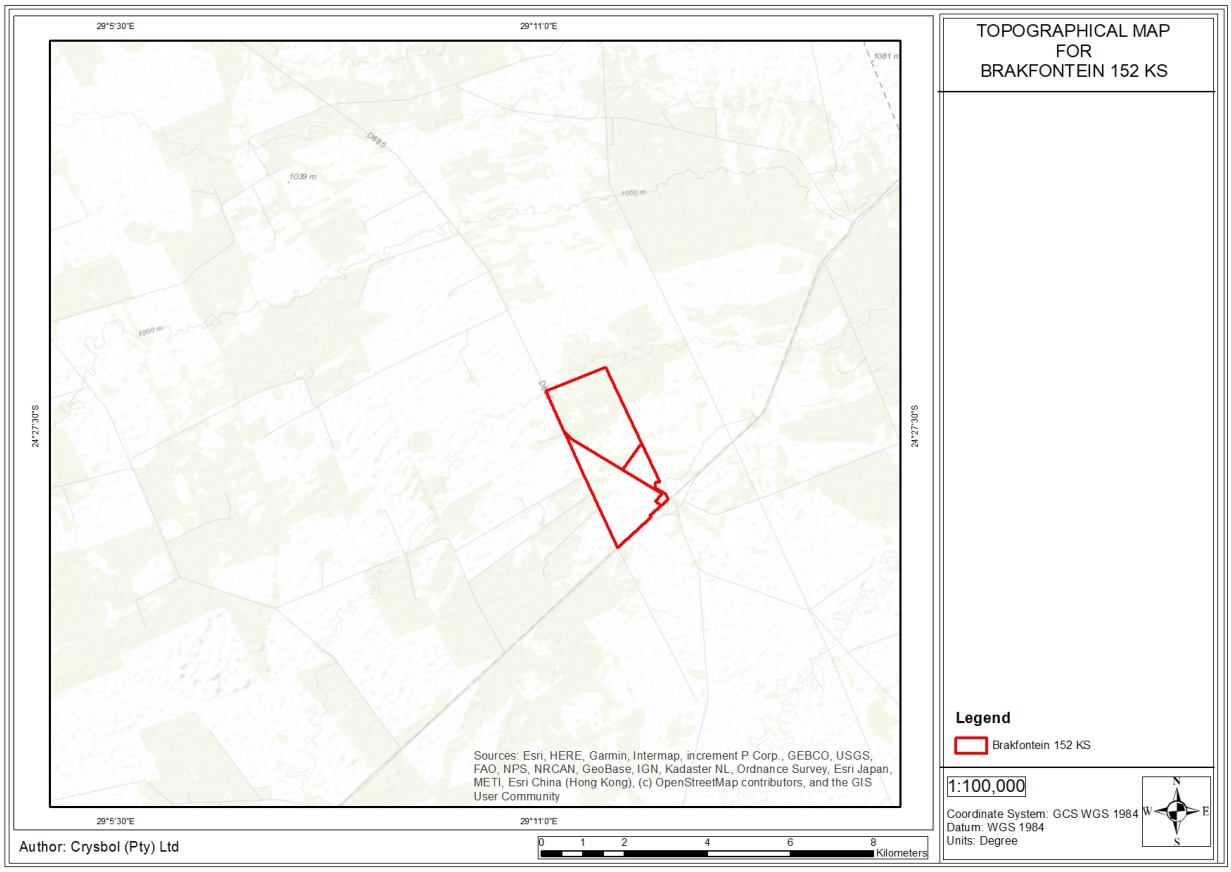

Figure 9: The topographical map

3.3.1.8 Socio Economic

Each community is unique as it is shaped by social networks, cultural influences, norms and values, politics, and the infrastructure in the area.

The main positive impacts of the excavation activities will be the temporary creation of jobs during the construction phase of the project. The project may also result in a temporary boost in small local businesses in the area.

It is expected that the final site layout will take into account the entire sensitive environment in the area and will avoid graves and other heritage and cultural resources in the area (if any). Movement of construction vehicles on the roads and other farm roads may increase the risks accidents on the roads. Other health and safety risks may be as a result on construction workers lighting fires on site and littering.

The site falls within Modimolle- Mookgophong local municipality which falls within the Waterberg district municipality.

Population

The Waterberg District Municipality has a relatively young population with a median age of 23 and a total number of 308 546 children, representing 10% of Limpopo's children. 243

households are headed by children between the ages of 10 to 14. The African population constitutes 91% of Waterberg's population, 61% of them live in poverty. 41% of the households are headed by women.

The district has an unemployment rate of 28.8% as opposed to employment rate of 38.4%, which employment rate is 1.4% higher than Limpopo. A majority of the employed (68%) are employed in the formal sector. 35.9% have completed matric or higher education, with 7% of the population with no formal education. This accounts for the social challenges confronting the district which amongst others relate to unemployment; substance abuse, gender based violence, number of people with no schooling, low average household incomes, crime and disease.

Lephalale has the largest population growth rate at 2.8 % on account of increased economic activity largely driven by Medupi power station and mining activities. Modimolle/Mookgopong municipality has the lowest population growth rate at -0.37% owing to outward migration as result of decline in economic activities. Thabazimbi has the highest proportion of economically active people at 63.7% and Mogalakwena has the lowest proportion of economically active people at 43%. Mogalakwena has the highest unemployment rate (40%) as opposed to Thabazimbi at 20%.

Health

According to the Department of Health, the District has total number of sixty-one Primary Health Care (PHC) facilities, three Community Health Centres (CHC), seven District hospitals, one specialised hospital, one regional hospital and six private hospitals. These facilities render comprehensive health care package to communities the District. In considering the ideal hospital primary health care facilities do not perform well with the lowest possible score recorded in emergency trolleys and resuscitation rooms equipped with factional and basic resuscitation equipment.

Mining

The mining industry in the municipal area contributes to the economic development of the district and province. The Waterberg area is the largest production area of platinum in the province of Limpopo and the mining of coal and petroleum development in Lephalale has increased demand for the commodity for electricity generation. Other Minerals found in the district include chrome, platinum, nickel, tin, tungsten, coal, iron and many other metals that have contributed to the flourishing of the mining industry in the district. The sector's output in the district is mainly characterized by extraction with limited value addition and diversification. Waterberg mineral resources present a variety of future economic developments opportunities

with broad potential contribution to industrialization, broader economic participation by Historically Disadvantaged Individuals and integrated community development.

Agriculture

Waterberg is predominantly rural with fertile soil and a good climate, presenting a comparative advantage in the agricultural sector and opportunities, which still needs to be realized to their full potential. Although named Waterberg, the district is actually classified as a semi-arid area with poor water resources.

For crop farmers, there have been dramatic changes in many commodity prices leading to changes in cropping patterns. Crops such as cotton, tobacco, maize and sorghum have been badly affected by low international prices and over production and plantings have been reduced significantly, often with negative financial and employment implications. Alternative crops like sunflower, wheat, soya beans, groundnuts and paprika are all internationally traded commodities that are produced within the district and thus sensitive to the rand/dollar exchange rate.

The mountainous northern extents of the municipal area and areas around Rust der Winter to the south in Bela Bela are predominantly used for game farming, while cattle farming is concentrated in the southern areas around Pienaarsrivier. Crop farming is dominant in the central parts especially towards the eastern parts of the Springbok Flats.

Tourism

The area of Waterberg is also blessed with rich history and cultural heritage resources that have potential for tourism. The Waterberg tourism sites include the following:

- Waterberg Biosphere Reserve- received its international status in March 2001 and now forms part of the World Network of biosphere reserves, registered with UNESCO. The Waterberg Biosphere Reserve is the first “savannah” biosphere reserve registered in Southern Africa.
- The Makapan Caves (Valley) - is a site for one of the most dramatic incidents in the long and fascinating local history near Mokopane town in the Mogalakwena Local municipality. This cooking pot reached a boiling point between the Voortrekkers and the local Ndebeles. The Voortrekkers, which by the 1850s were already well established as far as Schoemansdal near Soutpansberg, used the local area as a thoroughfare.
- Nylsvley Wetland- is a registered Ramsar site (Ramsar is the international convention for the protection of wetlands). More than 400 bird species have been recorded on the 16 000ha wetland extending some 70 kilometers between the towns of Modimolle and Mokopane.

- Hot Spring Water- the strong mineral springs with a flow of 220 000 litres of water per hour with a temperature of 52 degrees Celsius gave rise to the establishment of Bela-Bela(Warmbaths). The town`s progress was to a large extent due to the hot water and their healing qualities

The current tourism sites are of significance for the development of the local economy.

Education

The number of people with 'matric and a certificate/diploma' increased with an average annual rate of 4.48%, while the number of people with a 'matric and a Bachelor's' degree increased with an average annual rate of 3.74%. Overall improvement in the level of education is visible with an increase in the number of people with 'matric' or higher education. The number of people without any schooling in the Waterberg District Municipality decreased between 2008 and 2018 with an average annual rate of -4.90%, while the number of people within the 'matric only' category increased from 73,500 to 111,000.

3.3.1.9 Description of the current land uses.

This Section details the varying land uses located within and surrounding the Study Area. Based on the available information it is assumed that the land portion included in the prospecting right application is currently zoned for agriculture. No pond was identified on the farm. In the farms there are farm houses This will be confirmed during a site investigation and stakeholder investigation process to be conducted.

3.3.1.10 Description of specific Environmental features and infrastructure on the site

a. Demographics and Geographic Setting

South Africa is a constitutional democracy with an independent judiciary.

Although South Africa and its neighbours have a large and experienced workforce of skilled and semi-skilled mining labour, this labour pool is ageing rapidly. In addition, the high incidence of HIV/AIDS is likely to have a marked impact on the future availability of skilled labour. Nonetheless, a high number of job-seekers, coupled with a good training infrastructure, should ensure an adequate supply of skilled mineworkers.

South Africa has sophisticated financial infrastructure, with a world-respected banking system. The country possesses an efficient transport infrastructure, which has for many years also been utilised by other countries in Africa, as far north as the Democratic Republic of the Congo and Tanzania. The rail and port system are run by a parastatal company, Transnet Limited. The rail network extends over 22,000km and seven major harbours are utilised. The national and

provincial road networks consist of some 73,500km of surfaced and 288,000km of unsurfaced roads.

There are major international airports at Johannesburg, Cape Town and Durban, and a total of 727 registered airfields in South Africa. Electricity is generated mainly by parastatal company, Eskom, the country's electricity utility, and is amongst the cheapest in the world. Imaginative agreements between this utility and mineral processor in the past have seen the establishment of world-rated mineral-beneficiation projects, such as the Alusaf Hillside aluminium smelter, as well as the current development of a new deepwater port at Coega in the Eastern Cape.

South Africa possesses a modern telecommunications network, with international links including submarine cables and satellite stations. There are three cellular telephone providers.

The population of South Africa amounts to approximately 46.6 million (mid-2004 estimate), with a population growth rate of -0.31% (2005 estimate). English is widely spoken as a first and second language, with a literacy rate of 86.4%. There are 11 official languages

c. Local Resources and Infrastructure

Mining services and recruitment are readily available from Waterberg municipality, which has a long history of mining with the surrounding Limestone mines. Furthermore, drilling contractors, mining services and consultants will be readily sourced within the surrounding area.

Water which will be used will be brought on site by a water tank for the sole purpose of this project. The brought it water will be bought from a licenced water supplier who sells potable water or treated industrial water.

3.3.1.11 Environmental and current land use map.

(Show all environmental, and current land use features)

The farm is currently not being mined. No prospecting activities will take place within 100m of the sensitive areas.

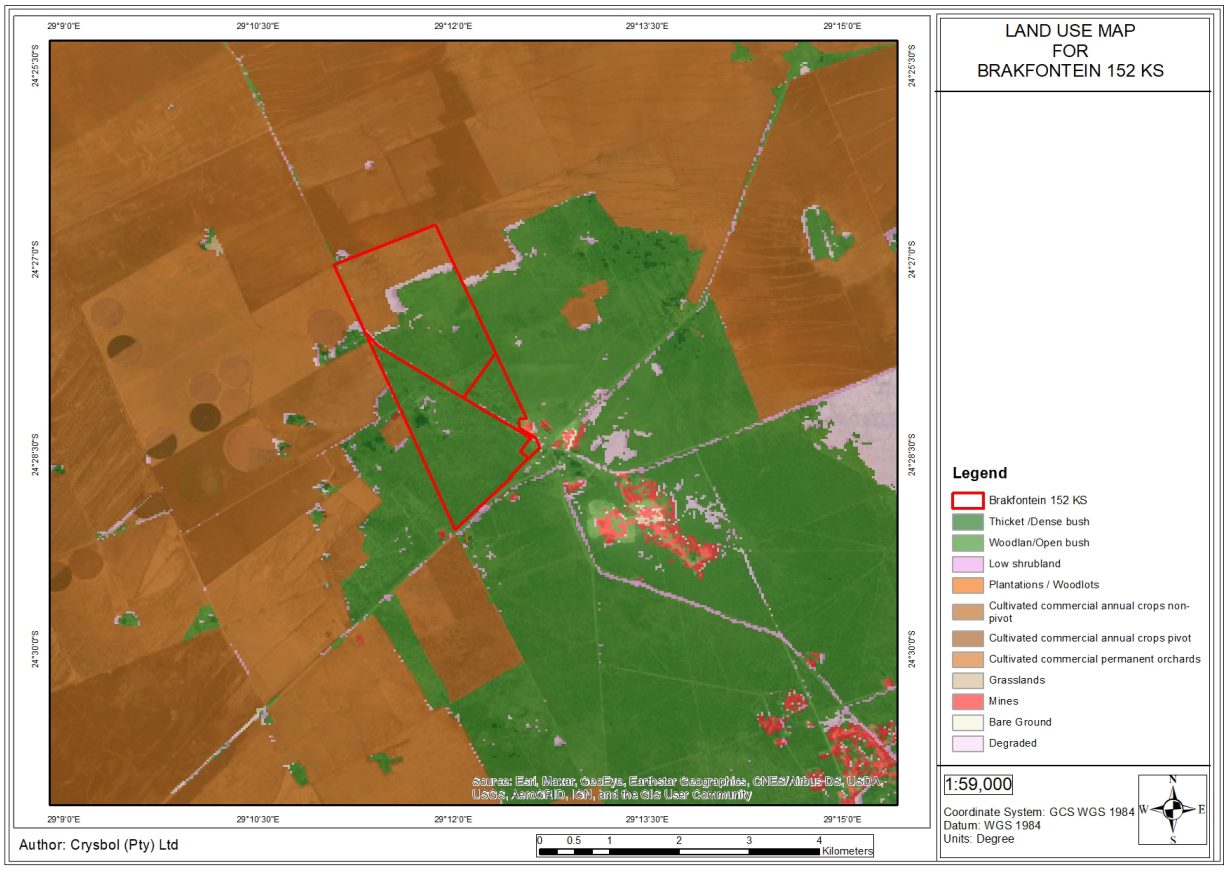

Figure 10: Land use map

4. ENVIRONMENTAL IMPACT ASSESSMENT

4.1 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOLLOWED

4.1.1 Approach to Environmental Impact Assessment

''The term 'environment' is used in the broadest sense in an EIA. It covers the physical, biological, social, economic, cultural, historical, institutional and political environments."

An Environmental Impact Assessment is a good planning tool. It identifies the environmental consequences of a proposed project from the beginning and helps to ensure that the project, over its life cycle, will be environmentally acceptable and integrated into the surrounding environment in a sustainable way.

4.1.2 Environmental Impact Assessment Process Followed

Under Section 24 of the National Environmental Management Act (NEMA), the Minister promulgated the regulations pertaining to environmental impact assessments (EIA Regulations, 2014) under Government Notice R982 in Government Gazette 38282 of 4 December 2014. These EIA regulations repealed the 2010 EIA regulations and therefore any

process relating to environmental authorisations must be undertaken under the EIA Regulations, 2014.

Chapter 4 of the EIA Regulations, 2014 deals with the provisions for application for environmental authorisation. In view of the above, Valley Side Resources (Pty) Ltd is obliged to comply with provisions of Chapter 4 for the intended environmental authorisation application for the activities (listed activities) within the proposed project.

Part 2 of chapter 4 of the EIA Regulations, 2014 contemplate process to be undertaken for the application for environmental authorisation for the proposed project, which is the BAR process. The process to be followed is describe below.

4.1.2.1 Pre-application consultation with the Competent Authority

In terms of section 24D (1) of the National Environmental Management Act, 1998 (Act 107 of 1998), the Minister responsible for mineral resources is the competent authority for environmental matters relating to mining and associated activities. In view of the above, the application for the environmental authorisation for the proposed project was submitted to the Department of Mineral Resources (DMR), Limpopo Regional Office for their consideration and decision-making.

4.1.3 Public Participation Process

Public participation is the cornerstone of the EIA process. The principles of the NEMA govern many aspects of EIA's, including public participation. These include provision of sufficient and transparent information on an ongoing basis to stakeholders to allow them to comment. Comments received from the public participation process will be included in the impact assessment and measures will be determined on how the comments will be addressed during the life of the proposed project.

The following steps were taken during the public participation process:

- Providing an opportunity for potential interested and affected parties to register.
- Making reports compiled within the environmental impact assessment available to register and potential interested and affected parties for their comments.
- Further to the above, interested and affected parties and the public will be informed of the decision taken by the responsible authorities on the submitted application.

The above process will ensure that the BAR and EMPr is subjected to a public participation process, which ensures that the proposed project is brought to the attention of interested and affected parties, the public and relevant organs of state including the competent authority.

4.1.3.1 BAR Phase

In compliance with Regulation 19 of the EIA Regulations, 2014, the BAR and EMPr will be submitted to the competent authority within 90 days after the acknowledgement of the environmental authorisation application.

As part of the public participation, the DBAR and EMPr was made available to the competent authority, potential and registered interested and affected parties for their comment for a period of 30 days during the EIA phase.

4.1.3.2 Information Gathering

Environmental baseline data has been obtained, pertaining to surface water, geohydrological data, topographical analyses, soil surveys, vegetation surveys, wetland surveys and geological conditions. Weather data was acquired from the South African Weather Service. Historic land use was determined through available data and by visual observations made during various field studies. The data accumulated and analysed is sufficient to gain a baseline indication of the present state of the environment. The use of this baseline study for impact assessments is thus justified and reliable conclusions could be made.

4.1.3.3 Decision on the BAR application

In compliance with Regulation 20 of the EIA Regulations, 2014, the competent authority will within 107 days of receipt of the BAR and EMPr grant or refuse the environmental authorisation.

4.2 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

The following prediction and evaluation of impacts is based on the proposed Prospecting project and associated activities. The evaluation distinguishes between significantly adverse and beneficial impacts and allocates significance against national regulations, standards and quality objectives governing:

- Health & Safety;
- Protection of Environmentally Sensitive Areas;
- Land use; and
- Pollution levels.

Irreversible impacts are also identified.

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

Probability : likelihood of the impact occurring

Area (Extent) : the extent over which the impact will be experienced.

Duration : the period over which the impact will be experienced.

Intensity : the degree to which the impact affects the health and welfare of humans and the environment (includes the consideration of unknown risks, reversibility of the impact, violation of laws, precedents for future actions and cumulative effects).

The above criteria are expressed for each impact in tabular form according to the following definitions:

4.2.1 Table 6–1: Environmental impact criteria expressed for each impact in tabular form according to each definition.

Probability	**Definition**
Low	There is a slight possibility (0 – 30%) that the impact will occur.
Medium	There is a 30 –70% possibility that the impact will occur.
High	The impact is definitely expected to occur (70% +) or is already occurring.
Area (Extent)	**Definition**
Small	0 – 40 ha
Medium	40 – 200 ha
Large	200 + ha
Duration	**Definition**
Short	0 – 5 years
Medium	5 – 50 years
Long	51 – 200 years
Permanent	200 + years
Intensity	**Definition**
Low	Does not contravene any laws. Is within environmental standards or objectives. Will not constitute a precedent for future actions. Is reversible. Will have a slight impact on the health and welfare of humans or the environment.
Medium	Does not contravene any laws. Is not within environmental standards or objectives. Will not constitute a precedent for future actions. Is not reversible. Will have a moderate impact on the health and welfare of humans or the environment.

High	Contravene laws. Is not within environmental standards or objectives. May constitute a precedent for future actions. Is irreversible. Will have significant impact on the health and welfare of humans or the environment.
Significance and Risk category	**Definition**
Negligible	The impact/risk is insubstantial and does not require management
Low	The impact/risk is of little importance, but requires management
Medium	The impact/risk is important; management is required to reduce negative impacts to acceptable levels
High	The impact/risk is of great importance, negative impacts could render options or the entire project unacceptable if they cannot be reduced or counteracted by significantly positive impacts positive impacts, and management of the impacts is essential
Positive (No Risk identified)	The impact, although having no significant negative impacts, may in fact contribute to environmental or economical Health

4.3 RESULTS OF THE ENVIRONMENTAL IMPACT ASSESSMENT

4.3.1 Assessment of the Prospecting Application Area impacts/risks

4.3.1.1 Construction Phase

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
CONSTRUCTION PHASES							
Site Establishment. Establishment of the access (tracks)to the prospecting site, Establishment of the campsite, Site physical surveying and Pegging of drilling sites							
The establishment of access and the surveying with pegging of the drilling sites may result in the stripping of soils if the site establishment is not properly conducted. This may result in the loss of soils and erosion that may render the area unusable. During site establishment, Machinery and vehicles used for the prospecting operation may result in hydrocarbon leakages, which may result in the contamination of the soils within the access tracks, campsite and drilling sites.	Soil/Land capability	Without mitigation					Establishment of the site will be undertaken according to the prospecting method statement. No soil stripping will be allowed during site establishment. Ensure minimal disturbance of soil when conducting geophysical surveys and geological mapping (if necessary). Any area that may result into the disturbance of the soils must be rehabilitated immediately on discovery. Machinery to be used for the operation will be of good working conditions. Any hydrocarbon spill from the site establishment will be remediated as soon as possible.
		S	L	S	M	M	
		With mitigation					
		S	L	S	L	L	
Current land use over the area to be used for site establishment will cease	Land capability	Without mitigation					Use sites that are unused and that are in the degraded state for the

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
completely. This may have an impact on the land owners' livelihood should they not be able to use the land.		S	M	S	M	M	proposed development. This will be done in agreement with the land owner. The setting-up of the boreholes will be conducted to ensure that rocky ridges, sensitive grass lands, indigenous trees and shrubs, site of geological importance and farmlands actively used for farming are avoided
		With mitigation					
		S	L	S	L	L	
The establishment of the site (access, campsite and drilling sites) may result in the removal of vegetation cover if the establishment is not done correctly. This may render the land unusable to the land owners after completion of the project.	Natural vegetation	Without mitigation					Use sites with most disturbed vegetation cover for the development. No strip of topsoil and vegetation will be allowed during site establishment. Ensure minimal disturbance of vegetation when conducting geophysical surveys and geological mapping. Any area that may result into the disturbance of the vegetation cover must be rehabilitated immediately on discovery.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
Animal burrows and habitats remaining within the proposed development site may be destroyed during construction. This may result in the migration of remaining animal life away from the affected areas. Poaching of wild animals	Animal Life	Without mitigation					Establishment of the site will be undertaken according to the prospecting method statement. No soil stripping will be allowed during site establishment. Any area that may result into the disturbance of the soils
		S	L	S	L	L	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
and livestock by the Labourers will result in the loss of wild live and loss of livestock to the land owner.		S	L	S	L	N	must be rehabilitated immediately on discovery. Use sites with most degraded environment for the site development. Poaching will be prohibited at the prospecting site
Exposure of soils during construction by the stripping of vegetation and soils may cause erosion, which may lead to increased silt loads in surface water runoff. This may result in the contamination of the clean water environment. Waste generated from the site may result in the contamination of surface and ground water should not management of such waste be undertaken.	Surface and Ground Water	Without mitigation					Site establishment will not be undertaken within sensitive landscapes. These areas will be avoided. A distance of 100 meters will be created between the sites and the sensitive landscapes. Avoid stripping of areas within the construction sites. Rehabilitate areas that may have been mistakenly stripped. Storm water upslope of the campsite and drill sites should be diverted around these areas. Proper waste management facilities will be put in place at the campsite and drilling site. Any hydrocarbon spill from the site establishment will be remediated as soon as possible.
		S	L	S	M	M	
		With mitigation					
		S	L	S	L	L	
Construction activities during the establishment of the site will include material loading and hauling. These	Air Quality	Without mitigation					Ensure that source specific management measures for Prospecting Application Area are
		S	L	S	L	L	

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
activities will result in the mobilization of particulates that will migrate away from the site to the nearby local residents. This will be a nuisance to the communities and will result in aesthetic impacts associated with fugitive dust emissions. On-site dust fall may have health and nuisance implications to employees at the existing offices.		With mitigation					complied with.
		S	L	S	L	N	
The noise level generated from the construction activities may exceed the SANS 10103 Levels for Residential areas and may exceed the maximum rating levels for ambient noise indoors. This may have an impact in the surrounding residents and employees using/delivering the machinery.	Noise	Without mitigation					Ensure that proper management measures as well as technical changes are undertaken to reduce the impacts on surrounding residents and employees. This include ensuring that less noisy equipment is use, that equipment is kept in good working order and that the equipment must be fitted with correct and appropriate noise abatement measures and where possible use white-noise generators instead of tonal reverse alarms on heavy vehicles operating on roads.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
The activities undertaken during the construction of the shaft and associated infrastructure will be visible from the	Visual Aspects	Without mitigation					Inform the land owner on the type of machinery and equipment to be used at the prospecting site. Ensure that
		S	L	S	L	L	

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
nearby roads and properties. However, due to the undulating topography, visibility for the most part will most probably be restricted to short distances		With mitigation					lighting is conducted in manner that will reduce the impacts on visual aspects at night times.
		S	L	S	L	N	
The site may be located in close proximity to a heritage site and may result in the destruction of the identified heritage site.	Sites of Archaeological and Cultural Importance	Without mitigation					The establishment of the boreholes will be such that the development is always away from any heritage sites. A buffer of more than fifty meters will be created between the grave yards and the proposed site development. A management plan will be drafted for the sustainable preservation of the graveyards be identified on site. Any grave must have access for descendants.
		S	M	S	H	H	
		With mitigation					
		S	L	S	L	L	
The commencement of the proposed project may result in an influx of 'outsiders' seeking jobs, which may be caused by increase in local unemployment levels. This may result in the potential increase in crime. It must however be noted that prospecting activities would unlikely attract job seeker due to its small nature of its scale.	Socio economic aspects	Without mitigation					Recruitment will not be undertaken on site. Farm Labourers will not be employed unless agreed to with the farm owners. Locals residing on the surrounding of portion 1 of the farm will also be prioritized for employment.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	

4.3.1.1 Operational Phase

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
OPERATIONAL PHASE							
Drilling and rehabilitation of the exploration boreholes							
Topsoil removal, storage and replacement during the excavation of the sumps will result. This will result in the disruption of the soils profile	Soils	Without mitigation					Ensure that topsoil is properly stored, away from the streams and drainage areas. The soils must be used for the backfilling and rehabilitation of the sumps. The rehabilitated sump must be seeded with recommended seed mix.
		S	M	S	L	L	
		With mitigation					
		S	L	S	L	N	
The use of vehicles during the setting up, pegging and drilling of the exploration boreholes may result in the spillages of hydrocarbon liquids from the vehicles and machinery. This will	Natural Vegetation and Soils	Without mitigation					Ensure that the drilling of the exploration boreholes is done in such a manner that the environment is protected from probable spillages and contamination by carbonaceous
		S	M	S	M	M	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
result in the contamination of the vegetation cover and soils. The material removed from the drilling exercises will contain carbonaceous material, which has a potential for pollution should it be allowed stay for a prolonged period at the drilling site. The above material, if not properly managed, may result in the contamination of the surrounding soils vegetation cover, which may render the land not usable after the backfilling operation.		S	L	S	L	L	material. All boreholes and sumps will be rehabilitated to pre-drilling conditions. Tarpaulins will be placed on the ground to prevent oil, grease, hydraulic fluid and diesel spills during emergency repairs. All oil spills will be remedied using approved methodologies. The contaminated soils will be removed and disposed of at a licensed waste disposal facility. All waste generated from the drilling sites and the campsite will be collected in proper receptacles and removed top registered disposal facilities e.g., sewage treatment plant, sold waste disposal site or hydrocarbon recycling or treatment facilities
Animal burrows and habitats will be destroyed by the preparation of the backfilling sites. This will further result in the migration of animals away from these areas of disturbance. It must however be	Animal Life	Without mitigation					The rehabilitation of the disturbed areas must be conducted such that the rehabilitation areas will encourage the migration of animals back into the
		S	L	S	L	L	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
noted that no significant amount of animal life exists due to the agricultural activities currently undertaken at the proposed prospecting sites.		S	L	S	L	N	rehabilitated areas. Poaching of wild animals and livestock will be prohibited.
The drilling operation may result in the generation of surface water runoff contaminated with drilling muds and cuttings should spillages occur. The sedimentation and possible contamination with carbonaceous material will have negative impacts on the surrounding clean water environment. These will cause an increase in the turbidity and will decrease acidity of the water in the streams, which will affect the aquatic habitat of the wetland, hence important habitats may be lost.	Surface Water	Without mitigation					No prospecting operations will be undertaken within 100 metres from the nearby streams and 100 meters from the nearby wetland areas. The sumps will be excavated for the collection mud and excess water from the drilling sites. The sump will be sized such that it will be able to contain the water and mud that will be generated during the prospecting operation. Storm water generated around the drilling site will be diverted away to the clean water environment. No concrete mixing and vehicle maintenance will be allowed on site. All hydrocarbons will be stored on protected storage areas away from the streams
		S	L	S	M	L	
		With mitigation					
		S	L	S	L	L	

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
The prospecting operations will require the drilling of boreholes. The boreholes may result in the drawdown, which may affect the yield to the surrounding groundwater users. Material used for backfilling may leach pollutants that will result in the pollution of the surrounding groundwater regime. This may even spread beyond the backfilling site via plume migration.	Groundwater	Without mitigation					Ensure that the land owners' borehole yield are observed during the drilling operation. Should it be proven that the operation is indeed affecting the quantity and quality of groundwater available to users and surrounding water resources, the affected parties must be compensated
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
The prospecting operations will require vehicular movement. This will result in the generation of dust by movement of vehicles and due to blowing winds. Vehicles and machinery will also generate diesel or petrol fumes. Generated dust will migrate towards the predominant wind direction and may settle on surrounding properties including vegetation.	Air Quality	Without mitigation					Dust suppression must be conducted during the operational phase of the project. Correct speed will be maintained at the proposed project site. Vehicle maintenance must be conducted regularly to avoid excessive diesel fumes
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
Noise generated from prospecting operations activities may add to the current noise levels. This may	Noise	Without mitigation					Ensure that proper management measures as well as technical changes are
		S	L	S	M	L	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
have impacts on surrounding property owners and occupiers.		S	L	S	L	L	undertaken to reduce the impacts on surrounding residents and employees. This include ensuring that less noisy equipment are use, that equipment is kept in good working order and that the equipment must be fitted with correct and appropriate noise abatement measures and where possible use white-noise generators instead of tonal reverse alarms on heavy vehicles operating on roads. Correct speed will be maintained at the proposed project site. Limit operation of machinery and vehicle movement between sunrise and sunset.
The drill rigs and towers used during the drilling operations will be visible from the nearby residents and properties.	Visual Aspects	Without mitigation					Ensure that the period used for the drill rigs is optimized to ensure that the drill rigs are moved from one site to another over short periods.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
Operation may affect the day to day operation of the land owners hence result in direct impact on	Socio economic aspects	Without mitigation					Ensure that all safety measures (EMPr) are implemented to prevent the impacts on the
		S	L	S	L	L	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
their livelihood		S	L	S	L	N	property owners. Ensure that negotiations on compensation are undertaken before the drilling programme can commence. This will include any other conditions that the landowner may deem necessary for the prospecting operation.
Operation will result in the employment of locals and support on local businesses.	Socio economic aspects	POSOTIVE					The applicant will ensure that as far as possible locals will be used during the operation of the prospecting project.
The drilling operation may result in the destruction of graves and any other heritage sites during operational phase of the project.	Sites archaeological and cultural importance	Without mitigation					Locate exploration borehole more than five hundred meters from the identified heritage sites
		S	M	S	H	H	
		With mitigation					
		S	S	S	L	L	

6.3.1.1 Decommissioning and Closure Phases

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
DECOMMISSIONING AND CLOSURE PHASES							
Decommissioning of prospecting site (Site Rehabilitation)							
The removal of the campsite equipment and the rehabilitation of the drilling sites and associated access infrastructure will result in the affected soil and land use being restored. This will also result in the resumption of the use of the land since the infrastructure would have been removed	Soils, Land Capability and Land Use	Positive impact					Ensure that rehabilitation is conducted in accordance with a rehabilitation method statements approved by the management. See description of the rehabilitation plan and management actions in the EMPr. Ensure that contamination of the rehabilitated area by carbonaceous material and hydrocarbon liquids are prevented.
Positive impacts will result due to the reduction in areas of disturbance and the return of land use of the affected areas and making available an area that was covered by the campsite drilling sites.	Land Use	Positive impact					Ensure that rehabilitation is conducted in accordance with a rehabilitation method statements approved by the management. See description of the rehabilitation plan and management actions in the EMPr. Ensure that contamination of the rehabilitated area by carbonaceous material and hydrocarbon liquids are prevented.

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
The use of vehicles/machinery during the rehabilitation of the exploration sites may result compaction of soils and in the spillages of hydrocarbon liquids from the vehicles and machinery. This will result in the contamination of and destruction of the vegetation cover and soils.	Soils and Natural Vegetation	Without mitigation					Ensure that the rehabilitation work is done in such a manner that the environment is protected from probable spillages and contamination by carbonaceous material. Tarpaulins will be placed on the ground to prevent oil, grease, hydraulic fluid and diesel spills during emergency repairs. All oil spills will be remedied using approved methodologies. The contaminated soils will be removed and disposed of at a licensed waste disposal facility. All waste generated from the drilling sires and the campsite will be collected in proper receptacles and removed top registered disposal facilities e.g., sewage treatment plant, sold waste disposal site or hydrocarbon recycling or treatment facilities.
		S	M	S	M	M	
		With mitigation					
		S	L	S	L	L	
During the decommissioning and closure phases equipment will be removed, stockpiled soils will be used for rehabilitation, remaining sumps will be backfilled, levelled, top soiled and the area re-seeded. During the process of	Surface Water	Without mitigation					Ensure that water leaving the site do not have elevated silt load. Ensure that the rehabilitated areas are free draining and that water from these areas is clean.
		S	L	S	L	L	
		With mitigation					

NATURE OF THE IMPACT	ENVIRONMENTAL ASPECT	IMPACT ASSESSMENT					MITIGATION MEASURES
		E	P	D	I	S	
rehabilitation surface water runoff from the rehabilitation site may have elevated silt load, which may cause pollution of the nearby water environment		S	L	S	L	N	
Rehabilitation and removal of the prospecting sites and equipment will require vehicular movement. This will result in the vehicles and due to blowing winds. Vehicles and machinery will also generate diesel or petrol fumes. Generated dust will migrate towards the predominant wind direction and may settle on surrounding properties including nearby vegetation.	Air Quality	Without mitigation					Dust suppression must be conducted during the decommissioning phase of the project whenever excessive dust is generated. Correct speed will be maintained at the proposed project rehabilitation sites. Vehicle maintenance must be conducted regularly to avoid excessive diesel fumes.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	
Noise will be generated during the removal of equipment and rehabilitation of the sites. This noise is not expected to exceed occupational noise limits and will be short lived.	Noise	Without mitigation					Where necessary, provided employees with ear plugs and employees must be instructed to use the ear plugs. Ensure that equipment is well maintained and fitted with the correct and appropriate noise abatement measures.
		S	L	S	L	L	
		With mitigation					
		S	L	S	L	N	

4.4 SUMMARY OF SPECIALIST REPORTS.

Based on the information collect from site including the desktop information, no specialist studies were deemed necessary to be conducted for the proposed project.

4.5 ENVIRONMENTAL IMPACT STATEMENT

Valley side Resources (Pty) Ltd has applied for a prospecting right over the Remaining Extent of Portion 4, Portion 12 and 13 of Brakfontein 152 KS Farm. The prospecting operation will involve the exploration for Limestone within the prospecting right area. Diamond core drilling will be used or the exploration and a campsite will be established on site. Each drilling site will have an access route in the form of a track and a sump for the collection of waste water generated during the drilling operation.

The area under investigation comprised of irregular topography characterised by hills and valley. The site falls within a semi-arid rainfall region with relative low rainfall which slightly reduced the potential impacts associated with soil erosion.

The proposed prospecting site is classified as non-arable land with a moderate to low grazing capacity with cattle farming and maize meal plantation being the predominant land use in the area.

The prospecting site is located in a semi-arid region and the protection of water quality and availability has been identified as aspects of key importance within the municipality and the general region. A high dependency on ground water resources has been identified; however, no Water Use License has been lodged with the Department of Water and Sanitation.

The conservation status is unknown, since no ecology study was undertaken. There are no graves present within the prospecting area observed during the site visit.

4.6 FINAL SITE MAP

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

The final maps showing the layouts of the proposed project plan are included on this report and same will be submitted to the DMR on granting of the prospecting right. The map has been developed to superimpose the proposed prospecting project together and associated infrastructure with the environmental sensitivities within the proposed project site.

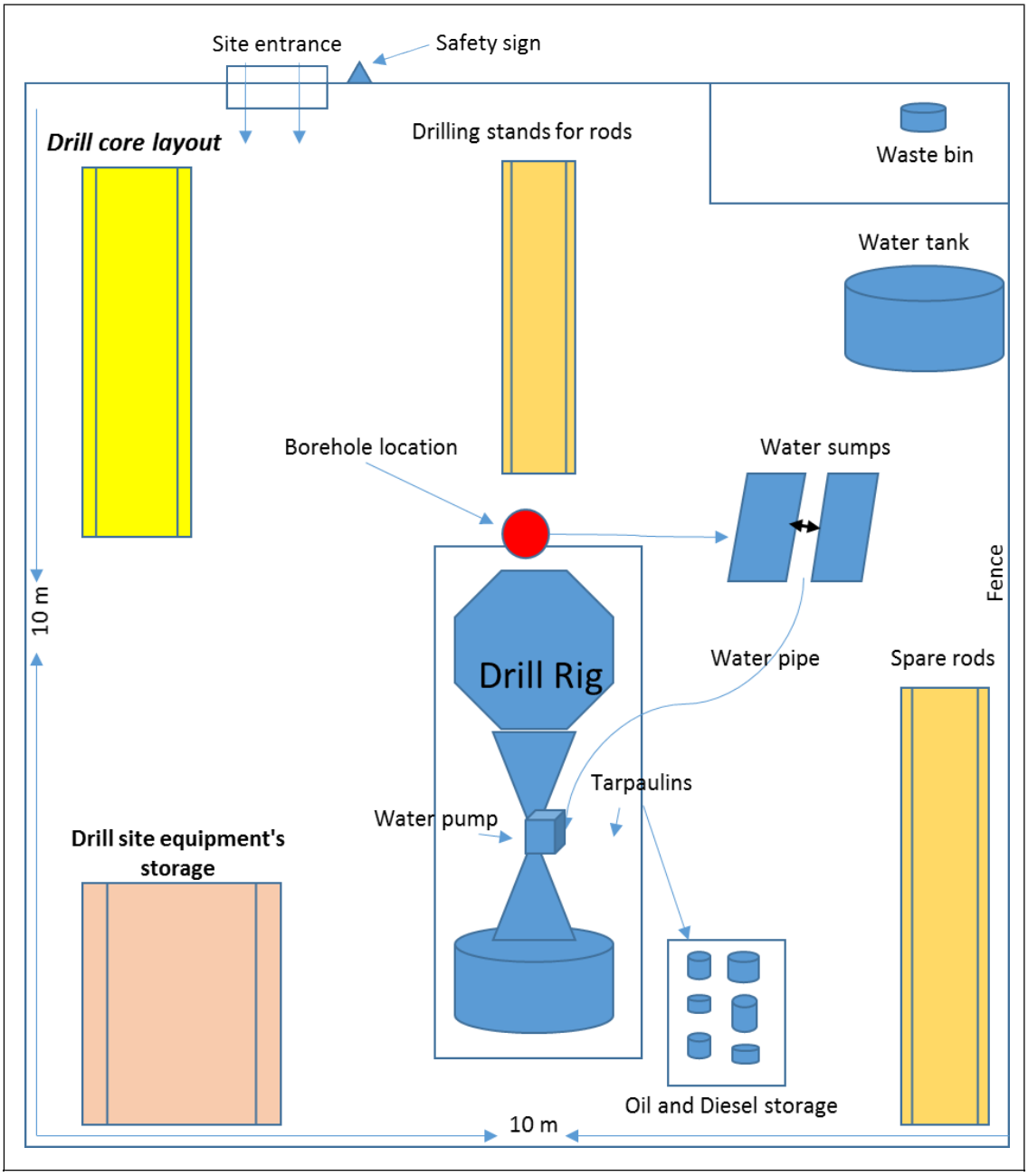

Figure 11: Drill Site Layout plan for the prospecting project area

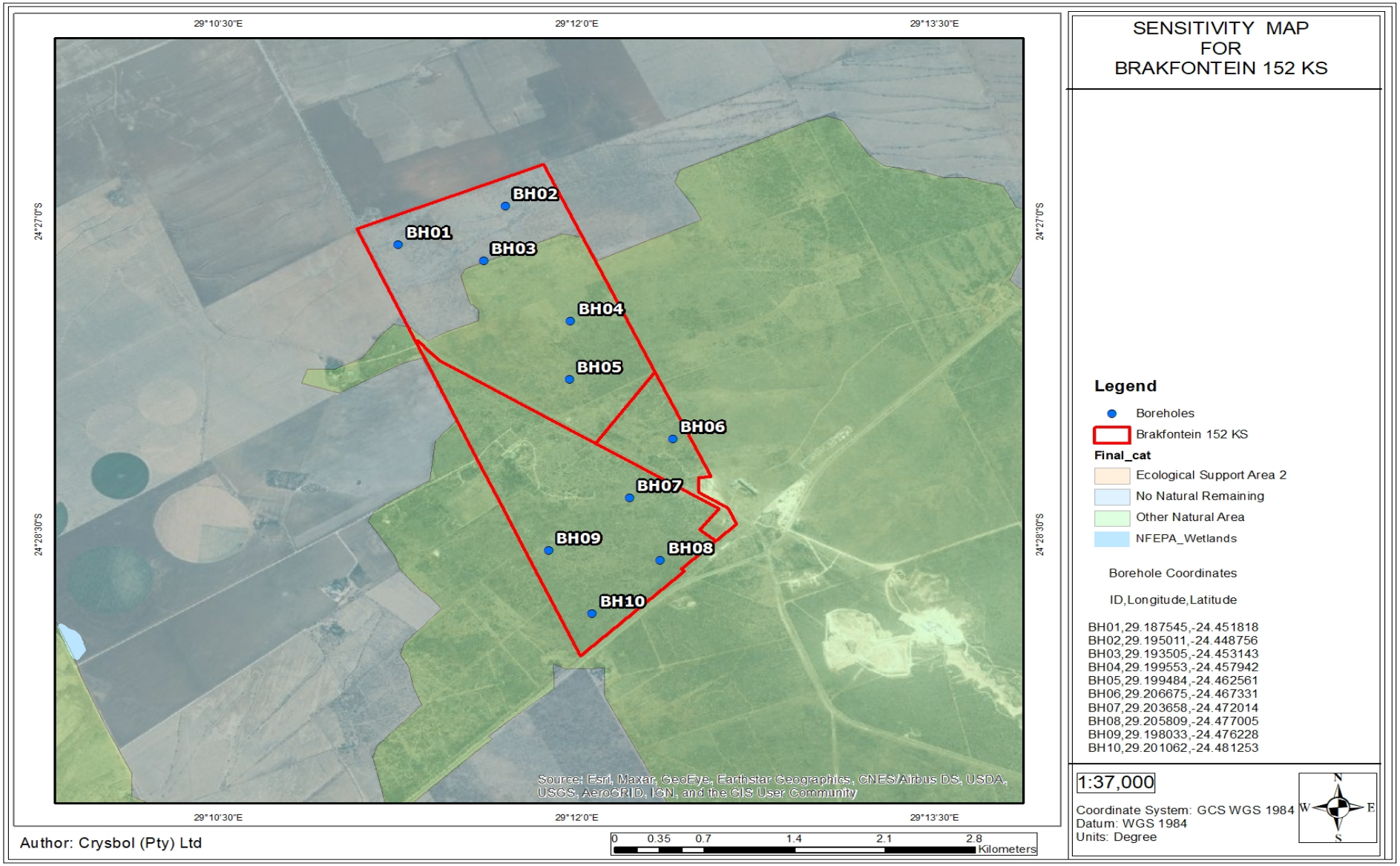

Figure 12: Borehole location layout for the prospecting area superimposed on environmental sensitivities within the project area.

4.7 SUMMARY OF THE POSITIVE AND NEGATIVE IMPACTS AND RISKS OF THE PROPOSED ACTIVITY AND IDENTIFIED ALTERNATIVES;

The impacts of the proposed site layout will be the same. There are no alternative sites selected however should they be a need for such to any unexpected discoveries such as graves, such alternatives site may be identified during the prospecting exercise. The alternative sites will be identified based on the location of sensitive environments such as heritage sites (graves etc.), wetlands, riparian zones, and areas with Red Data Species. Changes in the layout plan will be discussed and agreed on with the affected landowners

The nature of these projects are such that they do not create a magnitude impact on job creations, however as a positive contribution to the community and the environment, unknown geological and lithological become discovered and studied and to contribute to the knowledge of the area for future explorations. Should the prospecting activity yield positive results, mining right application will be logged which if granted will then contribute to the job creation of the surrounding community.

Negative impacts of the project have been discussed on the previously section and mitigation measures thereof that will be applied. Generally prospecting activities have low impact on the environment, such impacts can be controlled, and avoided or minimised therefore the layout does not require revision.

4.8 PROPOSED IMPACT MANAGEMENT OBJECTIVES AND THE IMPACT MANAGEMENT OUTCOMES FOR INCLUSION IN THE EMPR;

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

The objectives of the EMPr will be to provide detailed information that will advise project during Construction, Operation, Decommissioning and Post Closure Phases of the proposed project in order to avoid and/or reduce impacts that may be detrimental to the environment.

The proposed project's ultimate goal with regard to the environmental management is to manage all the significant environmental aspects by addressing, managing and controlling the environmental impacts of the work, and ensuring a continuous monitoring of environmental performance, and continual improvement in environmental performance through:

- Providing sufficient information to the prospecting activities as to avoid unnecessary social and environmental impacts

- Ensuring an approach that will provide the necessary confidence in terms of environmental compliance.
- Providing a management plan that is effective and practical for implementation

The key impact management outcomes would be the efficient and environmentally responsible management of the site and rehabilitate correctly. With the successful implementation of the recommended mitigation measures and rehabilitation of bore hole site, roads and directional drilling sites, these will be converted back into productive agricultural sites or grazing areas.

4.9 ASPECTS FOR INCLUSION AS CONDITIONS OF AUTHORISATION.

(Any aspects which must be made conditions of the Environmental Authorisation)

In order to minimise potential impacts associated with the establishment and management of the site, the following measures must be implemented and therefore included as conditions of the authorisation:

- Disturbed areas will be rehabilitated to a quality that matches or replicates the surrounding area.
- The EMPr will be implemented fully at all stages of the proposed project
- No activities may take place within 50m from any river or surface water body.
- No trees or shrubs will be felled or damaged for the purpose of obtaining firewood
- The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora.
- Topsoil will be removed from all areas where physical disturbance of the surface will occur.
- All available topsoil will be removed prior to the commencement of any operations.
- The drilling activities should be restricted to daytime
- All wastes generated will be disposed of at an appropriate registered landfill and disposal certificate be kept on site.
- Creation of new access roads will be minimised as far as possible.
- The speed of haul trucks and other vehicles will be strictly controlled to avoid dangerous conditions; excessive dust or excessive deterioration of the road being used.

4.10 DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE.

(Which relate to the assessment and mitigation measures proposed)

This BAR is based on the following assumption(s), uncertainties and gaps:

- The information provided by the applicant is accurate, sufficient and unbiased, and that no information that could change the outcome of the authorisation process has been withheld.
- It is uncertain that all issues brought forth by the interested and affected parties during the period of public participation process (30 days) where indeed the only issues available.
- That any potential impacts on the environment associated with the proposed prospecting activities will be avoided, mitigated, or offset.
- Valley Side Resources (Pty) Ltd will follow the conditions of the EA and applicable legislation for the duration of the project.

4.11 REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED

Reasons why the activity should be authorized or not.

- The desktop studies have proven that the site is located on a mineralised zone, prospecting activities must be undertaken to confirm the ore reserves. Environmental Management Plan has been developed to ensure proper mitigation measures are implemented to elevate and or minimise and any impact.
- It has also been noted that mining sector is the pillar of South African economy and also provides employment opportunities for many therefore if the results of this prospecting work are conducive for a mining application this will benefit the country as a whole.
- The option of not approving the activities will result in a significant loss to valuable information regarding the status of the ore bodies present on these properties.
- In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilize these reserves for future phases will be lost as well.

Conditions that must be included in the authorisation

Refer to section 4.9 above

4.12 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED.

The Prospecting Right has been applied for a period of five (5) years. The Environmental Authorisation should therefore allow for the four (4) years of prospecting and one (1) year for decommissioning and rehabilitation.

4.13 UNDERTAKING

(Confirm that the undertaking required to meet the requirements of this section is provided at the end of the EMPr and is applicable to both the Basic assessment report and the Environmental Management Programme report).

The undertaking is provided at the end of the EMPr and is applicable to both, this Basic Assessment Report and the EMPr in Part B, below.

4.14 FINANCIAL PROVISION

The Regulations pertaining to the Financial Provision for Prospecting, Mining and Production Operations promulgated under Section 44(A) (e), (f), (g), (h) read with sections 24(5)(b)(ix), 24(5)(d), 24N, 24P and 24R of the National Environmental Management Act, 1998 (Act 107 of 1998) (20 November 2015) have been considered and this is anticipated to result in an increase in the rehabilitation costs estimated using the above mentioned quantum.

The amount that is required to both manage and rehabilitate the environment in respect of rehabilitation is reflected in the quantum of financial provision in Section 35 (Part B) of the report.

4.15 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

Aside from the BAR and EMPr, the competent authority requires the proof of consultation, health and safety prospecting ability and financial ability.

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

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

Safety and security risks to landowners and lawful occupiers:

- The potential exists for a group of unfamiliar workers to enter the project area during the prospecting activities. This impact could potentially affect the local communities. However, the impact will be minimal as people on site will be limited to the Applicant, contractors and geologists.

Interference with existing land uses:

- Access to the application area when conducting prospecting activities will be required which may interrupt the existing land uses, such as livestock grazing, residential developments and game activities. However, this impact will be minimal as no heavy equipment will be brought on site and it is of short duration.

Perceptions and expectations:

- The proposed Prospecting Right may create interest, particularly in the potential for employment and concerns over damage to natural resources. However, the impact will be minimal as there will be on-going, open and transparent communication with affected stakeholders, communities and landowners.

Expropriation of land and displacement of landowners:

- At present, this impact is not anticipated and is considered improbable. However, should it occur, negotiations with affected landowners will be undertaken and any loss of revenue caused by the prospecting works will be reasonably compensated in order to minimise this impact.

Job creation:

- Where possible, the Applicant and contractors will source local labour. This will enable the use of the local labour force and as such create employment for locals. Due to the technical skills required to undertake prospecting works, the number of jobs would not be substantial and duration thereof would be short lived. In this regard, the nature of this impact is rated as positive. However, the significance thereof is relatively low.

Discovery of economically viable minerals

- Should prospecting prove successful and a resource quantified, it would indicate a potential for a viable economic activity in the form of mining. Mining will contribute greatly for local economic stimulation through direct employment, future business opportunities, royalties and tax revenues.

The consultation process will allow directly affected parties to raise their concerns. Further to this, it must be noted that I&APs, including directly affected parties were given the opportunity to review and comment on the draft BAR+EMPR. The results of the public consultation have been included in the final report submitted to the Department for adjudication.

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

There are no significant heritage resources present on the site and significant impacts are thus not expected. However, should there be any artefacts discovered on site during any phase of the prospecting work, such discovery will be reported to SAHRA and at the mean time all the activities should cease.

4.18 OTHER MATTERS REQUIRED IN TERMS OF SECTIONS 24(4)(A) AND (B) OF THE ACT.

There are no other matters required in terms of Section 24(4)(A) and (B) of the Act.

PART B

ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT

5 ENVIRONMENTAL MANAGEMENT PROGRAMME.

5.1 DETAILS OF THE EAP

The details of the EAP are provided in section 1.1 of part A of this document.

5.2 DESCRIPTION OF THE ASPECTS OF THE ACTIVITY

The requirements to describe the aspects of the activity are covered by the environmental management programme and are included in PART A of the document under section 1. The reader is therefore referred to section 1 of PART A of this document.

5.3 COMPOSITE MAP

The map superimposing the proposed project, its associated structures and infrastructure on the environmental sensitivities of the preferred site has been attached on this document Figure below. Note that all areas that must be avoided due to their environmental sensitivity are indicated in the map.

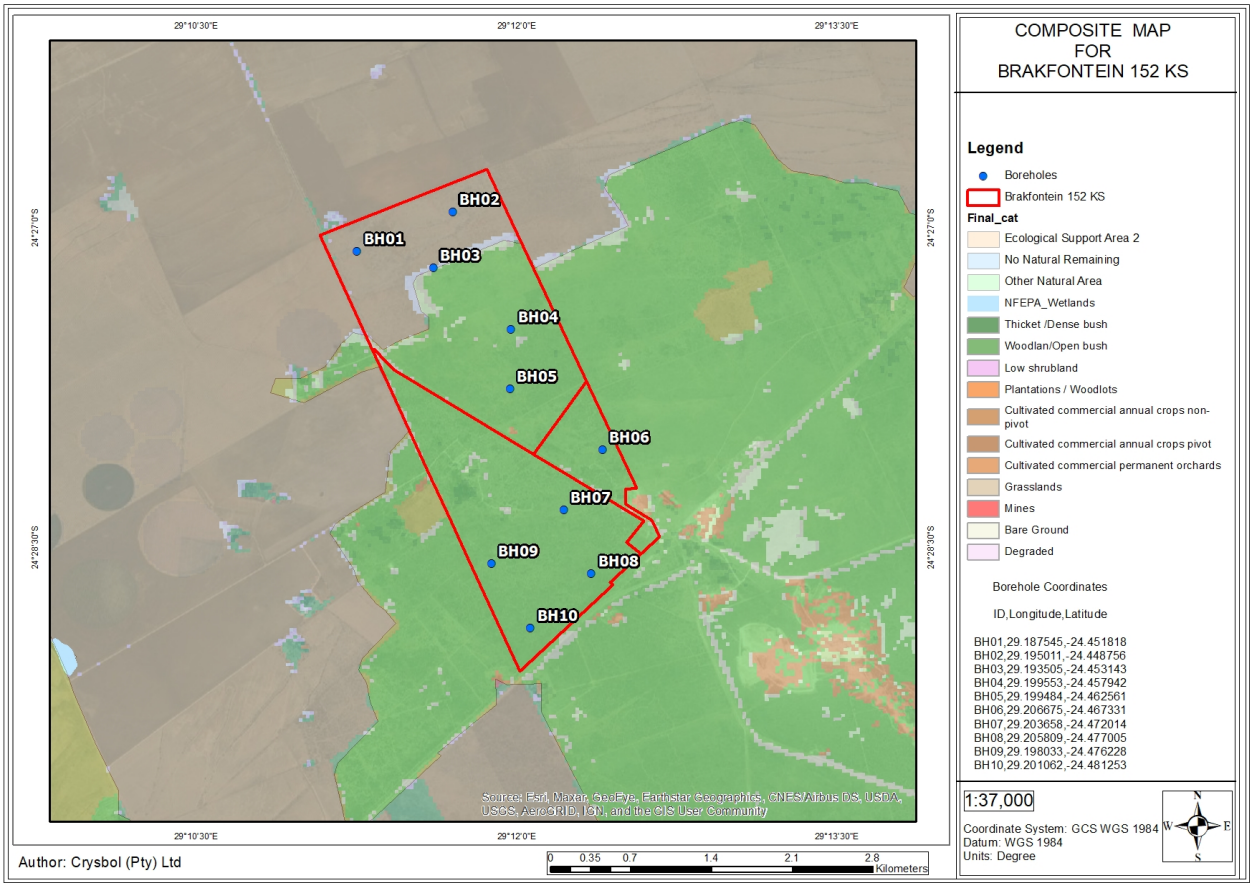

Figure 13: Composite map for the proposed prospecting right application.

5.4 DESCRIPTION OF IMPACT MANAGEMENT OBJECTIVES INCLUDING MANAGEMENT STATEMENTS

The main closure objective is to ensure that the site will be left as close as possible to the pre-prospecting state after completion of the borehole drilling activities. This will be achieved through continuous management and rehabilitation of the site and this can be achieved through three stages of the prospecting lifecycle (rehabilitation, decommissioning and closure activities and remediation of residual or latent environmental impacts). The following closure sub-objectives will guide the closure plans:

- Minimise erosion in areas that are already disturbed;
- Ensure that the impacted areas are free draining;
- Ensure the areas are safe for all people;
- Protect drainage lines and watercourses;
- Ensure that no temporary infrastructure is left on-site during long periods of cessation or upon closure; and
- Ensure environmental risks are minimised.

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

1000L of water per day on maximum production day of drilling

5.6 HAS A WATER USE LICENCE HAS BEEN APPLIED FOR?

No-Water Use Licence has not been applied for; this is due to the fact that no water extraction & diversion will be done from any water source. All water which will be used will be brought on site by a water tank for the sole purpose of this project. The brought it water will be bought from a licenced water supplier who sells potable water or treated industrial water for which a water sale agreement will be provided before work commences and is submitted to the DMR.

Figure 14: Indicating a mobile water cart

5.7 IMPACTS TO BE MITIGATED IN THEIR RESPECTIVE PHASES

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

Table 8: summary of rehabilitation measures to undertake

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
1. Construction Phase								
Establishment of access, to prospecting sites, establishment of the campsite, physical surveying of the site and pegging of drilling boreholes								
Loss of soils, erosion of the soils and impacts on owner's livelihood	Soils, Land Use and Land capability	To ensure that the activities in the development of the prospecting sites and associated infrastructure do not have detrimental impacts on the soils, land use and land capability	Ensure that the establishment of the prospecting sites is undertaken in accordance with the approved EMPr	Establishment of the site will be undertaken according to the prospecting method statement	Appointed contractor and site manager	Visual monitoring through inspections.	Environmental Control Officer (ECO) during construction.	During construction phase
				No soil stripping will be allowed during site establishment	Appointed contractor	Visual monitoring and inspections	ECO monthly	During construction phase
				Should it be necessary to conduct geophysical surveys and geological mapping, ensure minimal disturbance of soil.	Appointed contractor	Visual monitoring and inspections.	ECO monthly	During construction phase
				Should it be necessary to conduct geophysical surveys and geological mapping, ensure minimal disturbance of soil.	Appointed contractor	Visual monitoring and inspections	ECO monthly	During construction phase
				Any area that may result into the disturbance of the soils must be rehabilitated immediately on discovery	Appointed contractor and the applicant site manager	Visual monitoring and inspections.	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Machinery to be used for the operation will be of good working conditions. Any hydrocarbon spill from the site establishment will be remediated as soon as possible	Appointed contractor	Visual monitoring and inspections	ECO monthly	During construction phase
				Use sites that are unused and that are in the degraded state for the proposed development. This must be done in agreement with the land owner. The setting up of the boreholes must be conducted such that ensure that rocky ridges, sensitive grass lands, indigenous trees and shrubs, sites of geological importance and farmlands actively used for crop farming are avoided.	Appointed contractor	Undertake regular inspections	ECO monthly	During construction phase
Loss of natural vegetation in the affected areas	Flora	To ensure that the establishment of the prospecting site and associated infrastructure/equip ment do not have detrimental impact on the area's flora	The management of the impact will comply with the company's biodiversity management plan.	Use sites with most disturbed vegetation cover for the development.	Appointed contractor and site manager.	Visual monitoring and inspections.	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				No strip of topsoil and vegetation will be allowed during site establishment	Appointed contractor and site manager.			During construction phase
				Ensure minimal disturbance of vegetation when conducting geophysical surveys and geological mapping	Appointed contractor and site manager.	Visual monitoring and inspections	ECO monthly	During construction phase
				Any area that may result into the disturbance of the vegetation cover must be rehabilitated immediately on discovery	Appointed contractor and site manager.	Visual monitoring and inspections.	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
Migration of animal life due to disturbance caused proposed project	Animal Life	Ensure that the animal life within in the project is not affected by the proposed project	Maintenance of the current status on animal life within the project area	Establishment of the site will be undertaken according to the prospecting method statement	Appointed contractor and site manager	Visual monitoring and inspections.	ECO monthly	During construction phase
				No soil stripping will be allowed during site establishment. Any area that may result into the disturbance of the soils must be rehabilitated immediately on discovery	Appointed contractor and site manager.	Visual monitoring and inspections.	ECO monthly	During construction phase
				Use sites with most degraded environment for the site development	Appointed contractor and site manager.	Visual monitoring and inspections	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Poaching will be prohibited at the prospecting site	Appointed contractor and site manager	Visual monitoring inspections	ECO monthly	During construction phase
Deterioration of water quality in the nearby steams and within the groundwater regime	Surface and Ground Water	Ensure that the establishment of the project and its associated infrastructure does not have detrimental impact on nearby stream and the groundwater regime	The quality of streams and groundwater within the site will comply with the target DWS target water quality objectives. Construction will be in compliance with the regulations under the GN704.	Site establishment will not be undertaken within sensitive landscapes. These areas will be avoided. A distance of 100 meters will be created between the sites and the sensitive landscapes.	Appointed contractor and site manager.	Regular inspections	ECO monthly	During construction phase
				Avoid stripping of areas within the construction sites.	Appointed contractor and site manager	Regular inspections	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Rehabilitate areas that may have been mistakenly stripped	Appointed contractor and site manager.	Regular inspections	ECO monthly	During construction phase
				Storm water upslope of the campsite and drill sites should be diverted around these areas	Appointed contractor and site manager.	Regular inspections	ECO monthly	During construction phase

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Proper waste management facilities will be put in place at the campsite and drilling site. Any hydrocarbon spill from the site establishment will be remediated as soon as possible.	Appointed contractor and site manager.	Regular inspections	ECO monthly	During construction phase
Wetland destruction and loss of habitat.	Sensitive Landscapes	Ensure that the construction activities do not have detrimental impacts on the sensitive landscapes	Maintain the current state of the sensitive landscapes within the project area (farm dams and seepage zone).	Construction activities will be limited to be more than five hundred meters from the site establishment will be remediated as soon as possible.	Appointed contractor and site manager.	Inspection to ensure compliance with the action plan will be conducted at the construction site.	Eco will conduct the inspections monthly	Whenever construction is undertaken near the sensitive landscapes

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
Air pollution through air pollutants' emissions, from the construction site.	Air quality	Ensure that the operations during the construction phase do not result in detrimental air quality impacts.	The construction will be undertaken such that the ambient air quality does not exceed the National Air Quality Standards	Wet suppression using will be conducted at areas with excessive dust emissions.	Appointed contractor and site manager	Visual inspection of areas with possible dust emissions.	ECO monthly	Throughout the construction phase
				Traffic will be restricted to demarcated areas and traffic volumes and speeds within the construction site will be controlled	Appointed contractor and site manager	Regular inspections	ECO monthly	Throughout the construction phase.

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
Increased noise levels.	Noise aspects	Ensure that the noise levels emanating from the construction sites will not have detrimental effects on the mine employees and surrounding communities/and owners.	The noise levels from the construction sites will be managed and measures will be taken to ensure that noise levels are below the National Noise Control Regulations, SANS10103:2008 guidelines.	Limit the maximum speed to 60 km/h or less, subject to risk assessment. Less noisy equipment will be used, the equipment will be kept in good working order and the equipment will be fitted with correct and appropriate noise abatement measures	Undertake speed checks on speed used	Undertake site checks on speeds used.	Site manager	Throughout the construction phase.

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Ensure that the employees are issued with earplugs and that they are instructed to use them.	Site manager	Speed checking will be conducted.	Site manager checking as regularly as possible	Throughout the duration of the construction phase.
				Educate employees on the dangers of hearing loss due to mine machinery noise	Site manager	Use of earplugs will be checked and reported	Site manager will check the use of the earplugs as regularly as possible	Throughout the duration of the construction phase.
Visual impacts on the surrounding communities and road users from the construction	Visual aspects	Ensure that the operations during the construction phase do not result in detrimental visual impacts on surrounding properties communities and road users	Measures will be undertaken by the mine to ensure that visual aspects from the site are complying with the relevant visual standards objectives	The land owner will be informed on the type of machinery and equipment to be used at the prospecting sites	Applicant and site manager	The constructed perimeter berms will be inspected for compliance the design specifications	Mine Engineer on a monthly basis.	Throughout the construction phase.

Impact Activity Reference	Environmental Attribute	Impact Management Objectives	Targets (Impact Management Outcomes)	Management Actions and Interventions	Responsibility for Actions/Intervention	Monitoring Action	Responsibility and Frequency for Monitoring	Time period for Management Action
				Lighting will be conducted in manner that will reduce the impacts on visual aspects at night times	Appointed Contractor	Night time inspection of the site will be undertaken	The site manager once	During construction phase
Damage or destruction of sites with archaeological cultural significance.	Sites of archaeological and cultural importance	Ensure that the construction activities do not have detrimental impacts on the heritage sites.	The construction will be undertaken in compliance with the requirements of the National Heritage Resources Act, 1999 (Act 25 of 1999) and recommendations from the specialist.	The establishment of the sites will be away from any identified grave site or heritage sites. A buffer of five hundred meters will be created between the sites and the proposed camp and drilling sites.	Applicant and site manager	The site will be monitored for any damages on a regular basis.	ECO monthly	Throughout the construction phase when activities are in close proximity to the heritage sites
Impact from the influx of job seekers and employment of farm Labourers	Socio-economic aspects	Ensure that measures are taken to discourage influx of job seekers and employment of farm Labourers	Measures taken will be in line with the company's recruitment policies	Recruitment will not be undertaken on site. Farm Labourers will not employed unless agreed to with the farm's owners	Appointed contractor and site manager	Visual monitoring	Site manager	Throughout the pre-construction a construction phase

5.8 FINANCIAL PROVISION

Section 24 P of NEMA requires an applicant applying for an environmental authorisation related to mining to comply with the prescribed financial provision for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts before the Minister responsible for mineral resources issues the environmental authorisation. The above-mentioned financial provision may be in the form of an insurance, bank guarantee, trust fund or cash.

Regulations pertaining to the financial provision for prospecting, exploration, mining or production operations (GNR 1147) were promulgated on the 20th of November 2015. Valley Side Resources (Pty) Ltd has undertaken the financial provision determination in line with the requirements of section 11 of the Regulations pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations (GNR 1147). The financial provision determination for the proposed project is submitted to the Department of Mineral Resources for their consideration

5.9 DESCRIPTION OF CLOSURE OBJECTIVES AND EXTENT TO WHICH THEY HAVE BEEN ALIGNED TO THE DESCRIBED BASELINE ENVIRONMENT

The closure objectives for the proposed project as detailed under section 7.4 of the EMPr, were determined in consideration of physical (infrastructure), biophysical (environmental) and socio-economic measures as well as alignment to the closure components provided by the Department of Mineral Resources (DMR). See section 7.4.1 for the closure objectives.

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

The environmental objectives in relation to closure plan have been consulted with the landowners as well as farmers and affected parties. The consultation was done through public participation process which included submission of draft BAR and EMP'r Within the document content all aspects relating to the environment and the impacts posed by the proposed projects where outlines, furthermore, mitigation measure and closure plan was also outlined for the restoration land to its original land state.

5.11 REHABILITATION PLAN FOR THE PROPOSED PROJECT

In terms of Regulation 23 of NEMA EIA Regulations, 2014, an EMPr must address the requirements as determined in the regulations, pertaining to the financial provision for the rehabilitation, closure and post closure of the proposed operations. In view of the above, a rehabilitation plan for the proposed project has been compiled and detailed below:

In order to obtain a self-sustainable and stable closure plan, the following will be done where natural grassland had been disturbed during the prospecting process.

a. Rehabilitation and Closure

The clearing of soil surface areas would be restricted to what is really necessary for prospecting purpose. During the closure of these sites, or where vegetation is lacking or compacted, the areas would be ripped or ploughed and levelled in order to re-establish a growth medium and if necessary, appropriately fertilised to ensure the regrowth of vegetation and the soil ameliorated based on a fertilizer recommendation (soil sample analysed).

As the project progresses there will be an increase in the topsoil surface area disturbed initially but also at the same time concurrent rehabilitation will take place which involves the replacement of topsoil on backfilled drilled holes.

I. Rehabilitation of access roads

- Whenever a prospecting right is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the right, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.
- Any gate or fence erected by the holder which is not required by the landowner / tenant, shall be removed and the situation restored to the pre prospecting situation.
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the prospecting operation, be corrected and the area be seeded with a seed mix to the Regional Manager's specification.

II. Rehabilitation of the surface prospecting site

On completion of operations, all buildings, structures or objects on the camp/office site shall be dealt with in accordance with section 44 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), which states:

1. When a prospecting right, mining right, retention permit or mining permit lapses, is cancelled or is abandoned or when any prospecting or mining operation comes to an end, the holder of any such right or permit may not demolish or remove any building, structure, object -

   A & b. Which may not be demolished in terms of any other law?

   b. Which has been identified in writing by the Minister for purposes of this section; or

   c. This is to be retained in terms of an agreement between the holder and the owner or occupier of the land, which agreement has been approved by the Minister in writing.

2. The provision of subsection (1) does not apply to bona fide mining equipment which may be removed After all the foreign matter has been removed from the sites, the excavations shall be backfilled with subsoil, compacted and levelled with previously stored topsoil. No foreign matter such as cement or other rubble shall be introduced into such backfilling.

All rescued plants should be bagged and kept on a designated on-site nursery, and should be returned to site once all prospecting is completed and rehabilitation of disturbed areas is required. Replanting should only occur in springs or early summer (September to November), once the first rains have fallen, in order to facilitate establishment.

Seed should be collected from plants earmarked for removal prior to disturbance, in order to reduce the impact on plants. If seeds are collected from nearby seedbanks, it may indirectly affect the availability of seed as a source of food for a variety of animals and birds.

On completion of the prospecting operation, the above areas shall be cleared of any contaminated soil. The surface shall then be ripped or ploughed to a depth of at least 300mm and the topsoil previously stored adjacent the site, shall be spread evenly to its original depth over the whole area. The area shall then be fertilised if necessary (based on a soil analysis). The site shall be seeded with a vegetation seed mix adapted to reflect the local indigenous flora. Where the site has been rendered devoid of vegetation/grass or where soils have been compacted owing to traffic, the surface shall be scarified or ripped.

Photographs of the camp and office sites, before and during the prospecting operation and after rehabilitation and closure, shall be taken at selected fixed points and kept on record for the information of the Regional Manager.

Photographs of the different borehole sites, before and during the prospecting activities, after rehabilitation and closure, shall be taken at selected fixed points and kept on record for the regional manager's information and annual reporting.

Rehabilitation of the new topographical landscape in such a way that it would blend in with the surrounding landscape and allow normal (controlled) surface drainage to continue.

Implement water control systems in order to prevent erosion. Visual impact would be addressed by means of:

- Re-vegetation (grasses);
- Removal of any building, scrap, domestic waste, etc. that would otherwise contribute to a negative visual impact.

III. Fertilising of Areas to be rehabilitated

If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analysed and any deleterious effects on the soil arising from the mining operation be corrected and the area be seeded with a seed mix to his or her specification.

IV. Seeding of Grass Seed Mixture and planting of Woody Species

The eventual seed mixture takes into account the availability of seed, different soil situations and the prevailing climatic conditions of the area. The following mixture will be applicable to the boreholes on prospecting site:

- *Cenchrus ciliaris*
- *Cynodon dactylon*
- *Digitaria eriantha*
- *Heteropogon contortus*
- *Panicum maximum*

a. Demolition of infrastructure/buildings

On completion of operations, all structures on the prospecting terrain shall be dealt with in accordance with section 44 of the Mineral and Petroleum Resources Development Act,2002 (Act No. 28 of 2002).

b. Invasive and alien control programme

Develop and implement an invasive and alien control programme to control the spread of weeds and other invasive species. Eradicate exotic weeds and invader species if it invades the terrain. All illegal invader plants and weeds shall be eradicated as required in terms of Regulation 15 & 16 of the Act on Conservation of Agricultural Resources, 1983 (Act no. 43 of 1983) which list the plants.

c. Final Land use after rehabilitation

The land use within the proposed prospecting project area will not change after the prospecting activities. However, for the first three (3) years after the drilling of boreholes especially on the drilled rehabilitated area, the area will need to be monitored every second month and more of agriculture activities will need to be conducted to bring the land to its original state.

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

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

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

The table below details the quantum for financial provision for the Final Rehabilitation, Decommissioning and Closure Plan. Based on the calculations indicated in table below, the quantum of pecuniary vision required for the proposed project is R 65575 (Sixty-five Thousand, five Hundred and seventy-five Rand).

CALCULATION OF THE QUANTUM							Ref No.: LP 30/5/1/1/2/14433 PR	
Applicant: **Valley Side Resources (Pty) Ltd**							**Date: 13-May-22**	
No.	**Description**	**Unit**	**A** **Quantity**	**B** **Master Rate**	**C** **Multiplication factor**	**D** **Weighting factor 1**	**E=A*B*C*D** **Amount (Rands)**	
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	m3	0	17.33	1	1	R	-
2 (A)	Demolition of steel buildings and structures	m2	0	241.33	1	1	R	-
2(B)	Demolition of reinforced concrete buildings and structures	m2	0	355.65	1	1	R	-
3	Rehabilitation of access roads	m2	0	43.19	1	1	R	-
4 (A)	Demolition and rehabilitation of electrified railway lines	m	0	419.16	1	1	R	-
4 (A)	Demolition and rehabilitation of non-electrified railway lines	m	0	226.63	1	1	R	-
5	Demolition of housing and/or administration facilities	m2	0	482.67	1	1	R	-
6	Opencast rehabilitation including final voids and ramps	ha	0	253019.03	1	1	R	-
7	Sealing of shafts adits and inclines	m3	0	129.56	1	1	R	-
8 (A)	Rehabilitation of overburden and spoils	ha	0,1	168679.35	1	1	R	168679.35
8 (B)	Rehabilitation of processing waste deposits and evaporation ponds (non-polluting potential)	ha	0	210087.08	1	1	R	-
8 (C)	Rehabilitation of processing waste deposits and evaporation ponds (polluting potential)	ha	0	610192.47	1	1	R	-
9	Rehabilitation of subsided areas	ha	0	14124	1	1	R	-
10	General surface rehabilitation	ha	0,2	133622.5	1	1	R	26724.5
11	River diversions	ha	0	133622.5	1	1	R	-
12	Fencing	m	0	152.42	1	1	R	-
13	Water management	ha	0	50807.03	1	1	R	-
14	2 to 3 years of maintenance and aftercare	ha	0,2	17782.46	1	1	R	3556.492
15 (A)	Specialist study	Sum	0			1	R	-
15 (B)	Specialist study	Sum				1	R	-
					Sub Total 1		R	47148.927
1	Preliminary and General		4589,51136		**weighting factor 2** 1		R	5657.87124
2	Contingencies				4714.8927		R	4714.8927
					Subtotal 2		R	57521.69
					VAT (15%)		R	8053.04
					Grand Total		**R**	**65575**

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

The amount to finance the prospecting activities have been estimated to **R 65575 (Sixty-five Thousand, five Hundred and seventy-five Rand).** Financing will be sourced from the capital expenditure as planned by the company; this capital will come from the treasury of the company. As part of the mining permit programme, the applicant has provided the Valley Side Resources (Pty) Ltd annual financial statement for 2020. The annual financial statement for 2020 was also submitted to the DMR for confirmation that the company has available funding to implement this proposed project.

5.15 MECHANISMS FOR MONITORING COMPLIANCE WITH AND PERFORMANCE ASSESSMENT AGAINST THE ENVIRONMENTAL MANAGEMENT PROGRAMME AND REPORTING THEREON, INCLUDING

Mechanism for monitoring compliance

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Drilling and Sumps (Site Establishment)	The clearing of vegetation	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	The storage of hydrocarbon-based materials on site	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	On-site waste management	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
				DMR
Drilling	The creation of roads/tracks	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	The removal of storage and soil	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR
Drilling	Driving activities	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR

SOURCE ACTIVITY	IMPACTS REQUIRING MONITORING PROGRAMMES	FUNCTIONAL REQUIREMENTS FOR MONITORING	ROLES AND RESPONSIBILITIES (FOR THE EXECUTION OF THE MONITORING PROGRAMMES)	MONITORING AND REPORTING FREQUENCY and TIME PERIODS FOR IMPLEMENTING IMPACT MANAGEMENT ACTIONS
Drilling	Groundwater: Monitor the water quality of the boreholes	Monitor daily	Geologist/ EAP	Daily by Geologist, annually by independent environmental assessment practitioner to compile the required annual environmental compliance report required by the DMR

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

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

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

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

5.17 ENVIRONMENTAL AWARENESS PLAN

a) Way the applicant intends to inform his or her employees of any environmental risk which may result from their work.

All employees will be provided with environmental awareness training to inform them of any environmental risks which may result from their work and the manner in which the risks must be dealt with in order to avoid pollution or the degradation of the environment. Employees will be provided with environmental awareness training before prospecting operations start. All new employees will be an Inducted on environmental awareness which will be provided to all employees by a reputable trainer. Daily and weekly meetings will be held with employees to discuss all environmental issues.

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

The above section gives an overview of the manner in which the risks will be dealt with in order to avoid pollution. Approved documents such as EA, and EMP as well EMS will be used

as reference documents for any impacts related to the project. Training of employees in relation to environmental awareness will touch base on issues such;

- Access, including use of roads, tracks, gates, etc.
- Control measures required to manage no go areas.
- The handling, storage and disposal of waste.
- Weed control.
- Fire prevention.
- Sediment and erosion control.
- Control measures to be implemented with regards to the management of water, noise and dust.
- General Health and Safety Matters

5.18 SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

(Among others, confirm that the financial provision will be reviewed annually).

The financial provision will be reviewed on an annual basis or as requested by DMR.

5.19 UNDERTAKING

The EAP herewith confirms

a. the correctness of the information provided in the reports;
b. the inclusion of comments and inputs from stakeholders and I&APs;
c. the inclusion of inputs and recommendations from the specialist reports where relevant; and

d. that the information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected. parties are correctly reflected herein.

Signature of the environmental assessment practitioner:

Crysbol (Pty) Ltd

Name of company:

13 May 2022

Date:

-END-