

# DIGBY WELLS

## ENVIRONMENTAL

### NON-TECHNICAL SUMMARY OF THE DRAFT ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED PLATREEF UNDERGROUND MINE NEAR MOKOPANE, LIMPOPO PROVINCE

*NEMA ref No: 12/1/9/2-W32;*

*LIM/EIA/0000538/2013,*

*NEMWA ref no: 12/9/11/L1224/5,*

*MPRDA ref no: LP30/5/1/2/2/10067MR*

*\*This document is also available in Sepedi, Tsonga and Afrikaans*

#### **Project Number:**

PLA1677

#### **Prepared for:**

Platreef Resources (Pty) Ltd (Platreef)

#### **PURPOSE OF THIS DOCUMENT**

This document provides information regarding Platreef's intention to develop an underground mine outside of Mokopane. Digby Wells Environmental (Digby Wells) has been appointed by Platreef to undertake the Environmental and Social Impact Assessment (ESIA) for the proposed project. This document summarises the key findings of the environmental and social studies which have been undertaken for the proposed mine.

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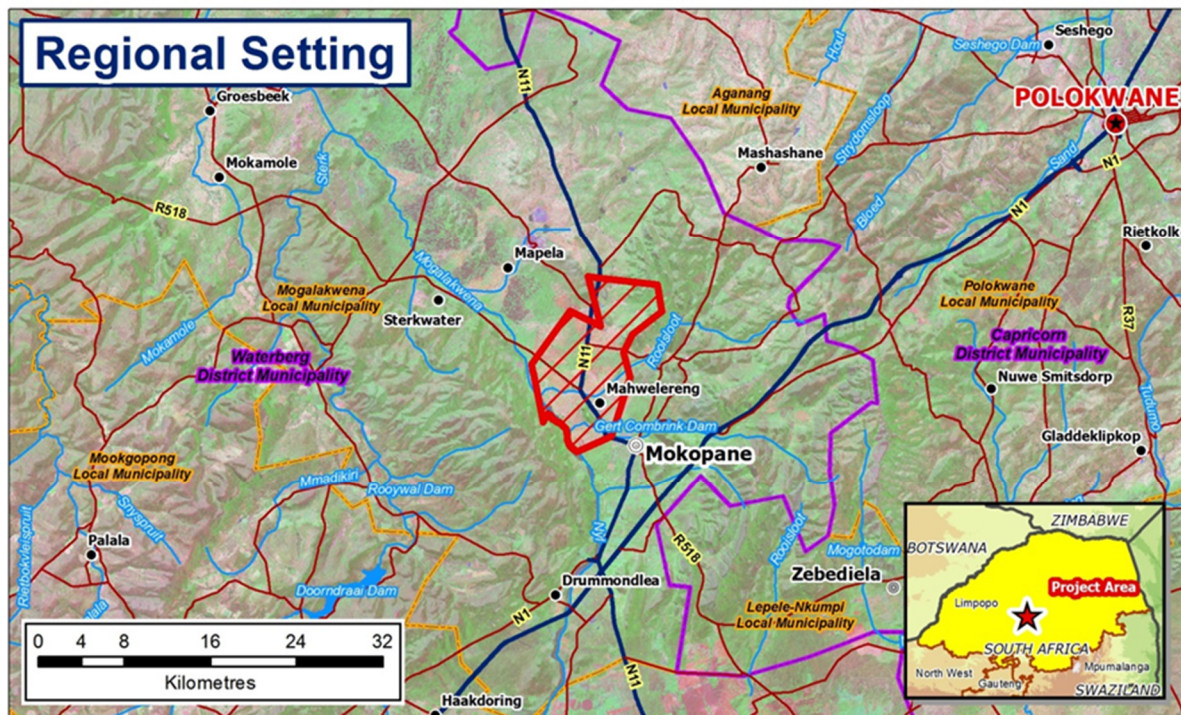
## BACKGROUND

Platreef Resources (Pty) Ltd (Platreef) has prospecting rights over the farms Turfspruit 241 KR and Macalacaskop 243 KR and have been prospecting for more than 15 years. Shallow and deep drilling was undertaken as part of the exploration activities. During the exploration a Platinum Group Metals (PGM) reef on the farm Turfspruit 214 KR was discovered and the decision was taken to develop this resource into an underground mine which will be known as the Platreef Project.

## PROJECT DESCRIPTION

### Project Location

The proposed Platreef Project site is approximately 10km north of the town of Mokopane on the farms Macalacaskop 243 KR and Turfspruit 241 KR next to the N11. The farms Rietfontein 2 KS and Bultongfontein 239 KR also forms part of the project area being investigated. All the farms fall within the Mogalakwena Local Municipality in the Waterberg District Municipality of the Limpopo Province, South Africa.



## Mining and Processing

Highly mechanised underground mining methods will be used to mine the reef. The mine will be accessed via a production shaft. Three ventilation shafts will also be developed to provide ventilation to the underground operation. The ore mined will be crushed underground with further crushing taking place on the surface. The ore and waste will be hoisted from the mine via the production shaft. Waste rock will be stockpiled on surface. After crushing the ore will be sent to a concentrator plant for processing. The concentrator plant will produce a concentrate which will mostly consist of Platinum, Palladium, Rhodium, Gold and Nickel. At first, all the concentrate will be sold to local smelters, with the possibility of developing a smelter, owned by Platreef, at a later stage. The life of mine is expected to be 30 years. Studies are being undertaken to determine whether the life of mine can be extended beyond 30 years.



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## Employment and Economic Development

During the operation of the mine it is expected that approximately 2 000 people will be employed. Platreef has developed a Social and Labour Plan (SLP) which outlines the sustainable local economic development of the communities impacted by the mine and proposes to provide the skills to people to remain economically active after mine closure.

## Infrastructure

The proposed mine will have the following (but not limited to) above ground structures:

- Concentrator plant;
- Workshops;
- Shafts and headgear;
- River crossings ;
- Waste rock dump;
- Pipelines;
- Tailings storage facility;
- Fuel storage facilities;
- Change houses;
- Power lines;
- A waste management site;
- Roads;
- Raw water storage dams;
- Stores;
- Pollution control dams;
- Control rooms; and
- Offices;
- Medical station.

## Access, Water and Power Supply

The project site will be accessed from the N11 and the R518 to transport equipment onto and off the site. Existing roads will be upgraded and old and new intersections are planned.

The amount of raw water required for the operation is approximately 8 000 – 10 000 litres a day (l/day) and will be supplied through the Joint Water Forum.

Power supply is being investigated with Eskom, to increase the power supply for the mining activities to 63 Mega Watts (MW).

## ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

Before Platreef can start mining they will need a number of licences and permissions from the Government. Digby Wells Environmental (Digby Wells) and Golder Associates Africa (GAA) were contracted by Platreef to assist with the licences, permissions and processes required.

### Regulatory Requirements

The following (main) licences are required before the mine can start:

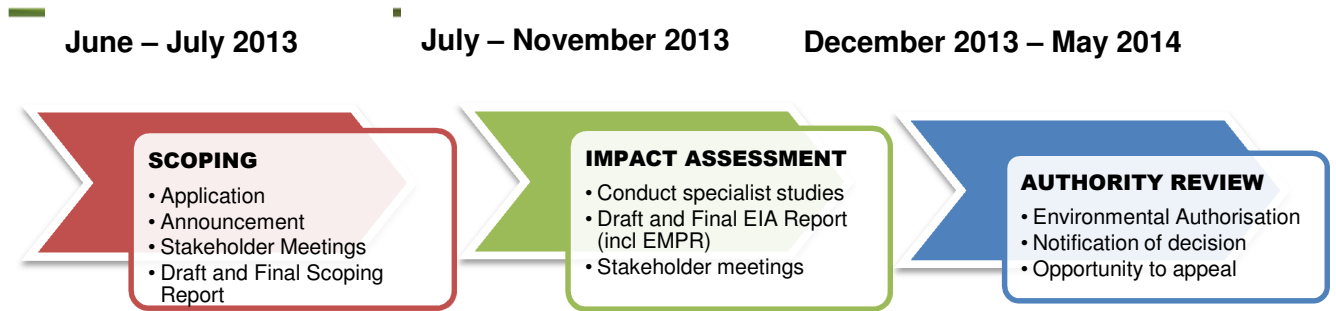
- Approval in line with the National Environmental Management Act (Act No. 107 of 1998) (NEMA) from the Limpopo Department of Economic Development, Tourism and Environmental Affairs (LEDET);
- A mining right according to Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) (MPRDA) from the Limpopo Department of Mineral Resources (DMR);
- An Integrated Water Use Licence (IWUL) as per the National Water Act (Act No 36 of 1998) (NWA) is required from the Department of Water Affairs (Limpopo Province); and
- An Integrated Waste Management Licence as per the National Environmental Management Waste Act (Act No. 107 of 1998) (NEM:WA) is required from the Department of Environmental Affairs (DEA).

Various other permits and licenses are also being applied for.

### Permission Process

The process is divided into the Scoping, Impact Assessment and Decision Making phases. The project is currently in the impact assessment phase.





The public have the opportunity to be involved in the project throughout the ESIA process by commenting on reports (Scoping and EIA/EMP), attending public meetings and submitting comments and concerns.

### Environmental/Specialist Studies

The impact assessment phase included studies to investigate the project area and potential negative and positive impacts. Specialist studies that have been undertaken include:

- Heritage and Archaeology;
- Surface Water Assessment;
- Water Ecology;
- Noise Assessment;
- Visual and Topography Assessment;
- Plants and Animals Assessments;
- Soil and Land Use;
- Groundwater Assessment;
- Air Quality Assessment;
- Socio-Economic Impact Assessment;
- Traffic Assessment; and
- Wetland Study.
- Community Health Impact Assessment;



### Key Findings, Impacts and Mitigations

The key findings, are summarised below

What is the potential impact?	What is the finding of the study?	What are we doing about it?
<b>Noise</b>		
Loud noise from blasting, vehicles, machinery and production plant	Vehicles, machinery and the production plant will create noise	Vehicles and machinery to be serviced regularly. Machinery to be switched of when not in use (day/night)
<b>Air Quality</b>		
Crushing of ore and transport on the dirt roads	The crushing and transportation of materials and equipment releases dust	Dust suppression must occur on the mining site and in areas where lots of dust might be made



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<b>Soil</b>		
Soil compaction and topsoil loss due to erosion	The mine operational phases in the Project area could lead compaction of soils and soil erosion	Only remove topsoil when and where necessary and if removed stored properly in soil stockpiles
<b>Surface water</b>		
Rain water running off the mining area	More water will run off the mining areas because there will be more areas under concrete and this water could possibly be dirty	Cut-off trenches to be built around any waste rock dumps, and stockpiles of overburden and topsoil
<b>Plants and Animals</b>		
Plants and animals will be removed or chased away	The building and operation of the mine will remove plants and animals	Plants should only be removed when and where necessary. Sensitive areas such as wetlands should be avoided
<b>Visual Impact on Landscape</b>		
Building of surface infrastructure will change the visual environment	The building of the mine's surface infrastructure will have a negative visual impact on the environment	Where possible infrastructure such as stockpiles should be covered with plants and infrastructure placed to lessen the visual disturbance
<b>Health and Safety</b>		
Traffic	Increase in traffic numbers could lead to accidents	Traffic control, road maintenance, driver training
<b>Health</b>		
Health	There could be a spread of Communicable Diseases	Education of the workforce and the local communities
<b>Social Impact</b>		
Job Creation	There will be job creation during building and operation of the proposed mine	Training and skills development will take place. Subcontractors will have to employ local people.
Underdeveloped local economy	Development of local economy	Give preference to local contractors and suppliers. Enterprise development through the Social and Labour Plan (SLP)
Lack of skills	Skills transfer and skills development needed	Skills development programmes and SLP commitments will be implemented
Economic displacement	There will be economic displacement as people will lose their access to fields and grazing	Surface Lease Agreements will be needed and compensation will be negotiated with individuals impacted. Platreef is also investigating supplying alternative land for the loss of the fields and grazing.

For all the findings please see the Draft EIA / EMP reports.

## Key Issues Identified During Consultations

The following most important issues were raised by the public during the participation process undertaken to date. These are not all the issues which have been raised but are some of the main issues.

Issue	Response
<b>Issues Raised Related to the Environment</b>	
Will there be compensation for fields?	Compensation is being paid for fields. The amount of compensation was determined by the Department of Agriculture.
Will blasting activities affect nearby houses?	A baseline housing survey will be undertaken prior to the commencement of mining activities. Blasting will be undertaken according to legal requirements by professionals.
The location of the supporting infrastructure must be explained, this includes the location of workshops, offices, and tailings dam.	The specialist studies undertaken for the ESIA have assisted to determine where the rock dump and other infrastructure will be situated. This information is included in the ESIA reports which are public documents.
Only affected parties must be invited to the meeting and not interested parties.	Meetings are open to the public.
What will the strategy be to ensure minimal impacts on the river systems in the area – avoid water pollution?	A detailed surface water study will be undertaken. Recommendations will be made in the EMP to manage the potential for water pollution. A monitoring program will also be implemented.
What will happen to graves found in the project area?	Digby Wells is working hand-in-hand with the South African Heritage Resources Agency (SAHRA). All grave sites will be identified and marked and feedback given to SAHRA. The authorities will be consulted to request permission to relocate the graves. Once this is done, the affected families will be consulted.
We are concerned about the negative impact dust might have on the community.	A dust impact assessment forms part of the EIA and will include mitigation measures to address the impacts of dust.
What will happen to my underground water supply?	There should be no impact on ground water. A ground water investigation is being undertaken to determine the impacts.
Is there an alternative land available for farmers?	Platreef is investigating a number of options to compensate people for the loss of farming land; this includes providing alternative land.
The leadership of the community should be consulted before consulting with the community	The traditional leadership of the communities were engaged prior to the public meetings.
Will there be resettlement?	There is no resettlement planned for any of the villages.
<b>Issues related to Platreef and the Mine</b>	
Will the mine employ uneducated / unskilled people?	The mine will employ mostly people with a minimum of a grade 12 education. There will however be some unskilled jobs.
Platreef is not honest with communities.	Platreef has been open and honest with the communities. More than 50 consultation meetings have been held with the communities to inform them of the activities undertaken by



	Platreef. More meetings will be held in the future to keep the community informed.
What actions have been taken for the granting of the lifting of the section 93?	The actions as indicated by the DMR directive was undertaken and hence the lifting of the section 93.
We even have lawyers, but they are not provided with the required information.	Platreef will provide non-commercial information requested.
The mine's drilling machines are still operating in the area but there are no surface agreements.	The drilling is part of the prospecting right. Surface agreements are a process which is overseen by the Department of Rural Development and Land Reform. This process will soon be started with the affected communities.
Platreef and Digby Wells has only identified eight villages which will be affected all 17 villages of the Mokopane Traditional Council are affected.	The eight villages identified are the most directly affected villages as they will experience the majority of the negative impacts. This does not mean the other villages are excluded
All people from all the affected villages must have an opportunity to work.	People from the affected villages will be given preference to work on the mine.
Platreef is creating divisions by meeting with Tshamahansi separately.	A separate meeting with Tshamahansi was arranged at the request of the Tshamahansi leadership. The meeting was also held separately as the people of Tshamahansi speak Tsonga.
If the Broad-Based Black Economic Empowerment (B-BBEE) issue is not addressed, a small number of people will benefit a great deal while many gain absolutely nothing.	The Government recently revised the B-BBEE codes and Platreef is reviewing the effect of the amendments on the Platreef B-BBEE before consulting the communities regarding this issue.
Platreef is currently drilling and some people in the area are not able to use the water which is already polluted with chemicals from the drilling activities. How is the water going to be managed whilst the communities are already impacted upon?	The family which was impacted has been supplied with an alternative water source. The specialist water quality study will indicate how the impacts of the mine on the water can be minimized.

## Public comment on the Draft Environmental Impact Assessment Report (DEIAR)

This document has the most important findings, of the EIA which has been undertaken for the proposed Platreef underground mine. The complete DEIAR and the supporting studies are available for you to read from **4 November until 25 November 2013 for the MPRDA process and from the 4 November until 14 December 2013 for the NEMA/NEM:WA processes**. The reports are available at the following places.

Documents		
Name	Location	Contact
Rifilwe Madisa	Mogalakwena Public Library, corner Van Riebeeck and Pretorius Streets	015 491 9729
Lucy Mashetisho	Mahwelereng Public Library, Mahwelereng Village	078 628 3326
Daphney Tsatsi	Platreef CSR office, 68 Retief Street, Mokopane	015 491 5694





Electronic Copies		
Steve Horak	www.digbywells.com (under resources public documents)	011 789 9495
Steve Horak	Phone and request a CD copy	011 789 9495
<b>The reports are also available from the headmen of the eight directly affected villages</b>		
Madiba; Ga - Magongoa; Masehlaneng; Masodi; Mzombane; Sekgobokwe; Tshamahansi (3 headmen); and Ga - Kgubudi.		
<b>The reports are also available at the Platreef CLO offices in the following villages</b>		
Madiba; Masehlaneng; Mzombane; and Ga - Kgubudi.		

## How to Comment

You can make your comments by:

- Completing the comment sheet attached to this document;
- Writing a letter or sending an email, or fax to the (contact details below); and
- You can also attend any one of the public meetings (see below) where the reports will be presented.

Date	Location	Time	Language
Sunday 17 November 2013	Mmadikana sport ground next to the Mokopane Traditional Council	09:00 – 11:00	English / Sepedi
Sunday 17 November 2013	Tshamahansi Open Ground, SAASA Pay Point Area, behind Roois Church, Ga Matjeke	09:00 – 11:00	English / Tsonga
Wednesday 20 November 2013	Oasis Lodge, 1 Thabo Mbeki Drive, Mokopane	14:00 – 16:00	English / Sepedi / Afrikaans

***Your comments on the reports are important and your comments, and responses to them, will be included in the next report which will be sent to the government to help them make a decision regarding the mine.***

Comments can be sent to:

Digby Wells Environmental

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