



**NATIONAL INSTRUMENT 43-101  
TECHNICAL REPORT  
AND  
VALUATION STATEMENT  
FOR THE  
MPHAHLELE PROJECT  
LIMPOPO PROVINCE, SOUTH AFRICA  
FOR  
PLATMIN LIMITED**

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Our Ref.  
Final Report  
Effective Date

D584R – Mphahlele  
17 April 2009  
2 February 2009

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PLATMIN LIMITED**

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Dear Sirs

### **EXECUTIVE SUMMARY**

The directors of Platmin Limited (Platmin) requested that Venmyn Rand (Pty) Ltd (Venmyn) prepare an independent Technical Report and Valuation Statement (Technical Report) on their Mphahlele development project (Mphahlele project), in the Limpopo Province of South Africa.

Platmin is a mineral exploration and development company with listings on both the Toronto Stock Exchange (TSX) and the Alternative Investment Market (AIM) of the London Stock Exchange (LSE). The Technical Report forms part of the documentation in support of a proposed inward listing of Platmin on the JSE Limited (JSE).

The Technical Report was prepared in accordance with the requirements of the Canadian National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, the South African Mineral Resource Code (SAMREC); and the South African Code for the Reporting of Mineral Asset Valuation (SAMVAL).

Platmin's exploration and development efforts are focused on the platinum group elements (PGEs) and the company is positioned to become an independent PGE producer with a growing pipeline of high quality PGE projects and an experienced management and technical team in place. Platmin's five key projects are the Pilanesberg Platinum Mine (PPM), Mphahlele, Grootboom, Loskop and Platmin Other Exploration Projects, all of which are located in the PGE-rich Bushveld Complex (BC) of South Africa.

#### **Property and Location**

The Mphahlele project is a PGE development project, comprising the entire 11,725 hectares (ha) of the farm Locatie van M'Phatlele 457KS (M'phatlele), which is located on the northern part of the Eastern Limb of the BC, in the Limpopo Province of South Africa. The project is located ±50km south of the town of Polokwane (capital of Limpopo Province).

#### **Ownership**

A New Order Prospecting Right (LP 30/5/1/1/2/905 CPR) was obtained over the whole area in September 2006. The rights were awarded to Tameng Mining & Exploration (Pty) Ltd (Tameng) in November 2002, in which Platmin holds a 54.29% interest.

A New Order Mining Right application was lodged with the Department of Minerals and Energy (DME) on 12 December 2007 (LP 30/5/1/2/2/87 MR). Said application was accepted on 20 December 2007 and although the New Order Mining Right has not yet been granted, Platmin have been required to provide financial provision in respect of potential future environmental liabilities.

### **Geology and Mineralisation**

The Mphahlele deposit is situated along the eastwest trending, northern part of the Eastern Limb of the BC, which is the largest layered igneous complex in the world (67,000km<sup>2</sup>) and host to the world's largest deposits of PGEs, chromium (Cr) and vanadium (V). The Proterozoic (2.06Ga to 2.058Ga) BC is divided into the lower Rustenburg Layered Suite (RLS) of ultramafic to mafic rocks, the Lebowa Granite Suite (LGS) and the felsic extrusive rocks of the Rашoop Granophyre Suite (RGS). The PGE mineralisation occurs within the UG2 Chromitite Layer (UG2) and the Merensky Reef, lying within the Upper Critical Zone (UCZ) of the RLS. The rocks of the Main Zone and the upper parts of the Critical Zone underlie the Mphahlele project.

The main structural controls of the northern parts of the Eastern Limb are the Wonderkop and Dwarsrand faults which traverse the Mphahlele project. East of the project, in the vicinity of the Lebowa Platinum Mine (previously known as ATOK), the igneous stratigraphy is shallow dipping with a northwesterly strike. West of the faulted region, the Critical Zone trends eastwest and dips an average of 51° on the Mphahlele project which increases to near vertical, 20km to the west at the former SouthernEra Resources Limited (SouthernEra) Messina Mine, now known as Lonmin Platinum Limpopo operations.

The mineralised Merensky Reef and UG2 are magmatic segregation deposits containing economic quantities of the PGEs and base metals. Throughout the BC the reefs are tabular bodies extending laterally over hundreds of square kilometres, resulting in extensive mineral resources whose continuity has been established over years of exploration and mining. On the Mphahlele project both the Merensky Reef and UG2 have the form of a gentle, open plunging anticline, striking on average at a 070° azimuth, and dipping at an average of 51° to the south-southeast. The strike length is over 7.9km, while the reef width for the Merensky Reef and the UG2 is between 1m and 4m, with the reef separation an average true width of 115m.

The UG2 is a chromitite layer, approximately 1.2m thick and in this northern area of the Eastern Limb it is unique in that it is sulphide rich. Typically the mineralisation peaks in the lower part of the layer and there is a correlation between the 4E grade and sulphide content.

The Merensky Reef is a pyroxenite layer typically 3m to 6m thick with mineralisation disseminated in the top metre of the pyroxenite. The Merensky Reef on the Mphahlele project exhibits three distinct facies types and has been disturbed by multiple intrusions of harzburgite in the central regions of the project area, with resultant dilution rendering the Merensky Reef in this region uneconomic. Disturbances of the reefs in the form of faulting and potholing are discernable in the borehole cores.

### **Exploration Concept**

The exploration work conducted by Platmin over the past five years has included:-

- airborne magnetic and radiometric geophysical surveys, with aerial photography to create digital elevation models;
- drilling of 220 boreholes with 306 deflections for a total of 71,822m including deflections; and
- logging, sampling and assaying of all mineralised core from this drilling.

### **Status of Exploration**

The core drilling programme began in February 2004 and, to date, 220 boreholes have been completed, logged and sampled, with assays results available from all holes sampled.

### **Development and Operations**

A definitive feasibility study (DFS) is currently being conducted on the Mphahlele project by SRK Consulting Engineers and Scientists (SRK) and the anticipated completion date is the second quarter of 2009.

A pre-feasibility study (PFS) was completed to a final draft stage in the last quarter of 2007, at which stage the decision was made by Platmin to commence with a DFS on the Mphahlele project.

To address the full extent of the specialist requirements for the PFS, a consortium of consulting engineering firms was assembled by SRK as summarised below. SRK undertook the overall collation of the data for the study and compiled the study report, the results of which are discussed in the conclusions below.

ACTIVITY	RESPONSIBLE COMPANY
Tenure and permitting Boynton	Boynton Investments
Geology	Tameng together with SRK
Hydrogeology	Africa Geo-Environmental Services
Metallurgy	Boynton Investments
Processing	Mineral Development Services/DRA
Tailings and rock dump design	Epoch Resources
Environmental aspects	Metago Environmental Engineers
Water supply	Boynton Investments
Labour requirements	Mineral Development Services together with SRK
Capital and operating costs	Mineral Development Services together with SRK

### Independent Valuation (SV T1.1)

Minxcon (Pty) Ltd (Minxcon) completed an Independent Valuation of the Mphahlele project. The valuation was compiled in accordance with the reporting and assessment criteria stipulated for Mineral Asset Valuations in the SAMVAL Code (2008).

The effective date of the Valuation is 2 February 2009.

Minxcon used the market approach and cost approach to value the Mphahlele project.

Minxcon's confidence in the market approach, leads the competent valuator to prefer the results of the market approach versus the cost approach. Furthermore, a DFS for the Mphahlele project is near completion and for this reason the cost approach is less applicable for valuing the project. Consequently the concluding opinion of value for the Mphahlele project is based on the market approach as follows:-

- the upper and lower valuation range of ZAR971.514m and ZAR794.588m respectively; and
- with a "fair" value of ZAR883.794m.

Since Platmin's attributable interest in the Mphahlele project is 54.3%, the "fair" value attributable to Platmin for the Mphahlele project is only ZAR479.900m.

### Conclusions and Recommendations

The Mphahlele project is situated within a prime segment of the Eastern Limb of the BC, where numerous companies are prospecting and successfully mining PGEs from the Merensky Reef and UG2. The legal tenure in terms of the New Order Prospecting Right is secure and without complication. A New Order Mining Right application has been accepted and approval is anticipated shortly.

Geologically the Mphahlele project is suitable for mining, as the mineralised reefs are continuous (apart for the central region where the Merensky Reef is disturbed by harzburgite intrusion), relatively steeply dipping at 50° to 55° and separated by 115m of footwall/hangingwall.

The exploration approach at the Mphahlele project has been systematic and appropriate for the style of mineralisation and the borehole information and database is sound. The confidence in the quantity and quality of geological information is sufficient for the declaration of Indicated and Inferred Mineral Resources on both the Merensky Reef and UG2.

A total (Merensky Reef and UG2), Indicated 6E Mineral Resource of 49.5Mt at 4.91g/t 5PGE+Au for 7.81Moz of metal content has been declared, of which 4.24Moz are attributable to Platmin. The Inferred 6E Mineral Resources are 71.9Mt at 4.34g/t 5PGE+Au for 10.04Moz of metal content, of which 5.45Moz are attributable to Platmin.

The Mineral Resources estimated are of a sufficient quality and quantity to support the DFS which is currently being conducted.

The Merensky Reef and UG2 would be mined via three decline systems from surface which would be located between the two reefs. The eastern and western declines would be a double barrel format and the central decline will be a single tunnel. In the PFS two mining production scenarios were examined, a 'Base Case' (excluding the Inferred Merensky Resource) and the 'Expanded Case' (including the Inferred Merensky Reef). The production rates for the 'Base' and 'Expanded' Cases are respectively 200ktpm and 240ktpm, made up respectively of 28% and 42% Merensky Reef and 72% and 58% UG2.

Mining in both reefs would begin simultaneously and the run of mine (RoM) would be fed to the concentrator together. In the 'Base Case', a total of 31.9Mt (7.8Mt Merensky Reef plus 24.1Mt UG2) are mined over at a grade of 3.81g/t 4E for a life of mine (LoM) of 21 years. In the 'Expanded Case', the corresponding figures are 18.9Mt Merensky Reef and 24.1Mt UG2 for a LoM of 21 years at 3.45g/t 4E.

The mineralisation allows for treatment of the Merensky Reef and UG2 in any blended proportion through a single plant without affecting recoveries and the general process circuit is likely to require two-stage milling with flotation (MF2), through rougher, cleaner and re-cleaner cells.

To enable the milling and flotation circuit to achieve the required throughput for all blend ratios, the mills need to be sized to treat 100% Merensky Reef and the flotation plant would need to be sized to treat 100% UG2.

Minxcon concludes a total Mphahlele project "fair" value of ZAR883.794m with an upper and lower range of ZAR971.514m and ZAR794.588m respectively.

Since Platmin's attributable interest in the Mphahlele project is 54.3%, the "fair" value attributable to Platmin for the Mphahlele project is only ZAR479.900m.

In terms of advancement, the Mphahlele and Grootboom projects are second to the PPM of Platmin's projects, with DFSs currently being completed on both of them.

## **DISCLAIMER AND RISKS**

This Technical Report has been prepared by Venmyn. In the preparation of the report, Venmyn has utilised information relating to operational methods and expectations provided to them by others. Where possible, Venmyn has verified this information from independent sources after making due enquiry of all material issues that are required in order to comply with the SAMREC and SAMVAL Codes and the JSE Listings Requirements. Venmyn has utilised information from the public domain, which, whilst it could not be verified, is considered to be from reliable sources. Venmyn and its directors accept no liability for any losses arising from reliance upon the information presented in this report.

## **OPERATIONAL RISKS**

The business of mining and mineral exploration, development and production by their nature contain significant operational risks. The business depends upon, amongst other things, successful prospecting programmes and competent management. Profitability and asset values can be affected by unforeseen changes in operating circumstances and technical issues.

## **POLITICAL AND ECONOMIC RISK**

Factors such as political and industrial disruption, currency fluctuation, commodity prices and interest rates could have an impact on future operations, and potential revenue streams can also be affected by these factors. The majority of these factors are, and will be, beyond the control of Platmin or any other operating entity.

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## 1 INTRODUCTION (NI 4, SR T1.1, T1.2 & T11, T5.4 SV T1.2, T1.11 & T1.13)

The directors of Platmin requested that Venmyn prepare an independent Technical Report on their Mphahlele project in the Limpopo Province of South Africa. Platmin is a mineral exploration and development company with listings on both the TSX and AIM. The Technical Report forms part of the documentation in support of a proposed inward listing of Platmin on the JSE. The main purpose of this inward listing is to:-

- increase the Company's public presence and profile;
- enhance the liquidity and tradability of Platmin's shares;
- facilitate direct investment by South African residents and corporates in Platmin; and
- provide Platmin with another potential source of capital.

The Technical Report was prepared in accordance with the requirements of the Canadian NI 43-101 Standards of Disclosure for Mineral Projects, the SAMREC Code and the SAMVAL Code. Each section of the report is designated with the relevant NI 43-101 Item number (NI Item), SAMREC Code Table 1 reference number (SR T) and SAMVAL Code Table 1 reference number (SV T). A comparison of the fundamental criteria underlying the SAMREC Code and Canadian NI 43-101 is presented in Appendix 1.

Platmin's corporate structure is outlined in Figure 1. Their exploration and development efforts are focused on PGEs at five key projects areas, namely the PPM, Mphahlele, Grootboom, Loskop and Platmin Other Exploration Projects, all of which are located in the PGE-rich BC of South Africa (Figure 2).

Platmin's flagship project is the PPM, which is currently in the Development stage and is the most advanced of the key projects, with a DFS having been completed on the project during 2007. Construction on the concentrator plant commenced in 2007 and mining operations started up with the removal of overburden in April 2008 after the granting of the New Order Mining Right on 14 February 2008. The full production stage for the mine is scheduled for the second quarter of 2009.

The Mphahlele project is a PGE development project on the Eastern Limb of the BC. DFSs will be completed for both the Mphahlele and Grootboom projects by the second quarter of 2009. The Loskop and Platmin's Other Exploration projects are in the Exploration phase.

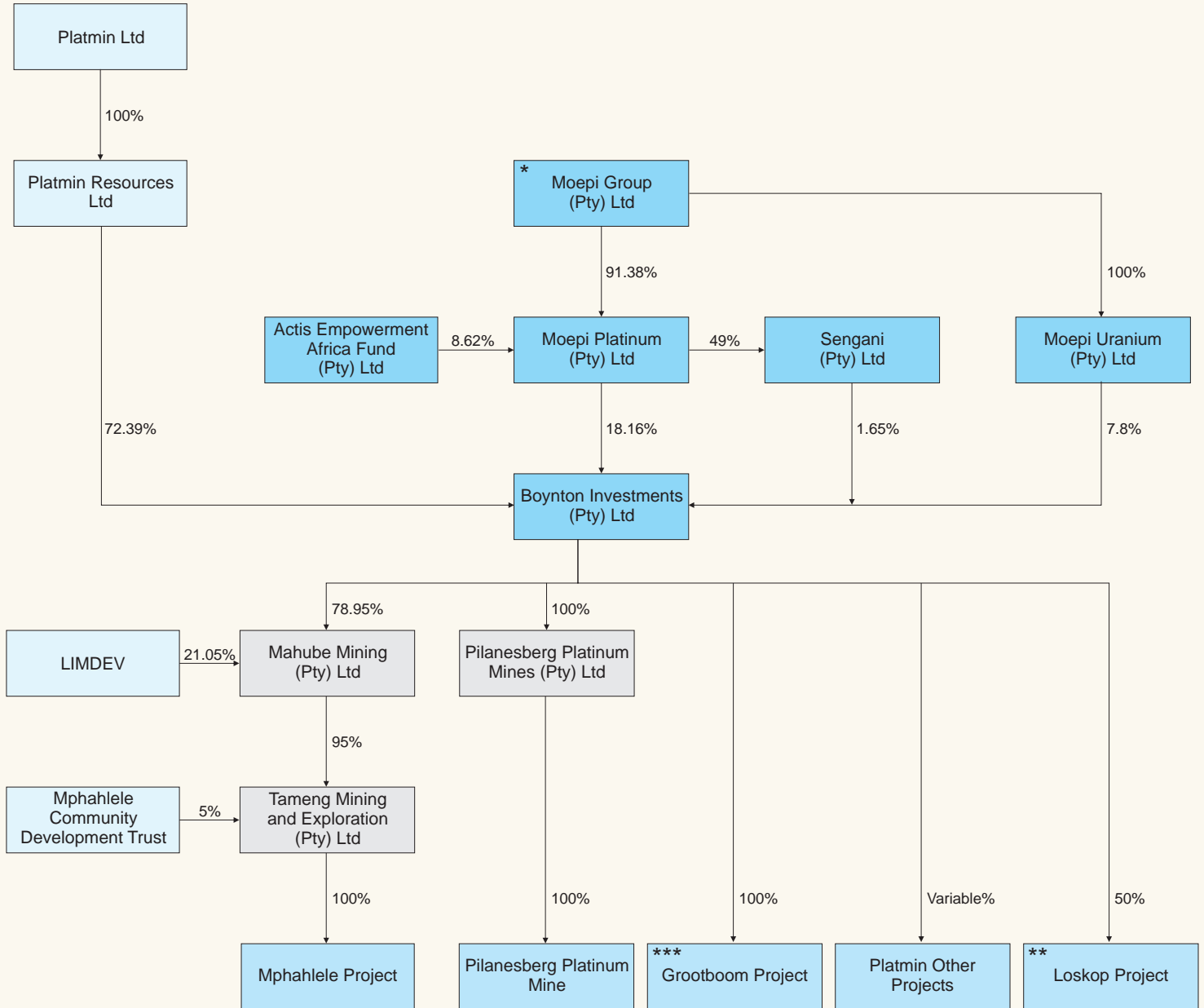
Platmin has made a smooth transition from advanced PGE exploration into the development phase and is positioned to become an independent PGE producer with a growing pipeline of high quality PGE projects and an experienced management and technical team in place.

In compiling the Technical Report, Venmyn reviewed and made use of the documentation outlined in Table 1, for which written consents were obtained from the independent consultants. In addition, technical information post dating these reports have been provided by Platmin. The effective date of the Technical Report is 2 February 2009.

**Table 1 : Source Documentation**

DOCUMENT NAME	COMPILED BY	REFERENCE NUMBER	DATED
Interim Management's Discussion and Analysis of Financial Condition and Results of Operation.	Platmin Limited	-	10 October 2008
Updated October 2008 NI 43-101 Technical Report on the Mineral Resource Estimate for the Mphahlele Project held by Platmin Limited.	SRK	-	1 October 2008
Annual Information Form for the Year ended February, 29 2008.	Platmin Limited	-	22 May 2008
Pre-Feasibility Study for the M'Phatlele Platinum Mine (Draft).	SRK	371760	November 2007
Independent Technical Report on Platmin Limited's South African Platinum Minerals Properties (Volumes 1 & 2)	RSG Global	-	15 May 2006
Historical and current records of Platmin, public domain and documents referenced in the Reference list.	Various	-	-

**CORPORATE STRUCTURE OF PLATMIN**



\* BEE Partners  
 \*\* 50% Rietfontein 1st JV area - Lonmin  
 100% Elsewhere  
 \*\*\* Boynton 100% on Grootboom 336KT  
 Option to acquire PGE Right on Annex Grootboom 335KT



The Qualified Persons contributing to this Report are:-

- Mr Andy Clay, M.Sc. (Geol.), M.Sc. (Min. Eng.), Dip. Bus. M., Pr Sci Nat, MSAIMM, FAusIMM, FGSSA, MAIMA, M.Inst.D., AAPG, MCIMMP;
- Mr Derick de Wit, Pr. Tech. Eng., B. Tech. (Chem. Eng), M.A.P. (Wits.), MSAIMM, MIASSA, MAusIMM;
- Ms Fiona Harper B.Sc.Hons (Geol.), Pr Sci Nat, MGSSA, and.

Venmyn relied upon the independent opinion of external experts, as outlined in Table 2, to complete the Technical Report. One of the Qualified Persons contributing to this report conducted a personal inspection of the property on 2 April 2009. Furthermore, the author of several reports on which this Technical Report is based, Dr. A Martin (SRK) visited the property in August 2007 and again in March 2008. Mr A van den Merwe (RSG Global) undertook a site visit to the Mphahlele project in March 2004 and again in January 2005. The Competent Valuator, Mr J Odendaal (Minxcon) visited the property in 2004.

Venmyn is an independent advisory company. Its consultants have extensive experience in preparing Technical Reports, technical advisers' and valuation reports for mining and exploration companies. Venmyn's advisors have, collectively, more than 70 years of experience in the assessment and evaluation of mining projects and are members in good standing of appropriate professional institutions. The signatories to this report are qualified to express their professional opinions on the values of the mineral assets described. To this end, Qualified Persons Certificates are presented in Appendix 2.

Neither Venmyn nor its staff, have or have had any interest in this project capable of affecting their ability to give an unbiased opinion, and, have not and will not, receive any pecuniary or other benefits in connection with this assignment, other than normal consulting fees. Platmin has warranted in writing that it has openly provided all material information to Venmyn, which, to the best of its knowledge and understanding, is complete, accurate and true.

## 2 RELIANCE ON OTHER EXPERTS (NI 5, SR T11, SV T1.11 & T1.13)

Venmyn has relied upon the independent opinion of the following experts to the extent and in the context described in the summary below:-

**Table 2 : Reliance on Other Experts**

EXPERT	COMPANY	TYPE OF STUDY	DATE	EXTENT OF RELIANCE
Astrup, J	Platmin	Current records of Platmin, public domain and documents referenced in the Reference list.	2009	Updated exploration results, consolidated Mineral Resource statement and general information
Bell, J.G.	Bell Geophysics	Airborne Geophysics results quoted by SRK in the Technical Report on Mphahlele	2006	Interpretation of airborne geophysics Survey
Gouws, H.	Hannes Gouws & Vennote Inc	Legal Opinion Confirmation of Title	September '07	Confirmation of a Converted Prospecting Right
Lomberg, K	RSG Global	NI Technical Report on Platinum's South African Platinum Minerals Properties (Volumes 1&2)	May '06	Historical Mineral Resource Statements and Others
Martin, A.	SRK	NI Technical Report on the Mphahlele Mineral Resources	October '08	Reliance on the QA/QC for the sampling, the Mineral Resource estimation
Odendal, J	Minxcon	SAMVAL Valuation	February '09	Project Valuation
Pheiffer, A.	Metago Environmental Engineers	Pre-feasibility Study for the M'Phatlele Platinum Mine (Draft)	June '08	Environmental Impact Assessment and Environmental Management Plan
	SRK		November '07	Metallurgical and Mine design

## 3 PROPERTY DESCRIPTION AND LOCATION (NI 6, SR T1.5, T1.7, T3.9 & T5.6, SV T1.3)

### 3.1 Location, Area and Other Properties

The Mphahlele project lies approximately 50km south of Polokwane (the capital city of the Limpopo Province of South Africa), east of Dithabaneng village.



The project is located on the northern section of the Eastern Limb of the BC as outlined in Figure 3. In terms of current administrative boundaries, the project area falls within the jurisdiction of the Lepelle-Nkumpi Municipality. The concession occupies an area of 11,725ha, constituting the entire farm Locatie van M'Phatlele 457KS. As a point of note, the Title Deed Register for the farm originally went by the name of M'phatlele, however Platmin agreed with the Mphahlele Tribal Authority to refer to the project as Mphahlele. Much of the historical documentation utilises the original spelling, however the nomenclature Mphahlele will be utilised throughout this Technical Report.

The project area is immediately east of Lonmin's Platinum Limpopo Mines, 40km northwest of Anglo Platinum's new Twickenham-Hackney mining complex, and 40km south of Anglo Platinum's Polokwane smelter (Figure 3).

### 3.2 Property Description and Confirmation of Tenure

The proposed project area is rural and densely settled on the outskirts. The main land uses within and adjacent to the project, include residential areas, subsistence dry land agriculture, small-scale commercial agriculture and livestock grazing. The identified mineral resource blocks and proposed mining infrastructure are located sufficiently removed from these areas to have no impact either from or on them.

The boundaries of the farm have been surveyed and coordinates of these are held by the Government administered Title Deeds Register. The tenure has been confirmed by Hannes Gouws & Vennote Inc., Attorneys Notaries and Conveyancers, Pretoria.

### 3.3 Issuer's Title and Tenure

The Prospecting Right covers an area of 11,725ha constituting the entire farm M'Phatlele (Figure 4). The Mphahlele project consists of a New Order Converted Prospecting Right (LP 30/5/1/1/2/905), issued in September 2006, over a single farm with mineralisation extending over a known strike length of 7.9km. The prospecting right is valid until September 2011, and is renewable.

**Table 3 : Legal Aspects and Tenure - Mphahlele**

PROVINCE	PROPERTY	PERMIT TYPE AND NUMBER	START DATE	EXPIRY DATE	SIZE (ha)	APPLICANT	INTEREST AND ISSUES OUTSTANDING	MINERALS
Limpopo	M'Phatlele 457 KS	New Order Prospecting Right LP 30/5/1/1/2/905 CPR	21-Sep-06	20-Sep-11	11,725.00	Tameng Mining and Exploration (Pty) Ltd	Boynton 78.9% interest	PGEs and associated minerals

Both the surface rights and the mineral rights are vested with the State. Although the surface area required for mining is not currently held by Platmin, they believe awarding of this is considered to be only a formality.

The New Order Mining Right application was lodged with the DME on 12 December 2007 (LP 30/5/1/2/2/87 MR). Said application was accepted on 20 December 2007. Although the New Order Mining Right is not yet granted, Platmin were required to provide financial provision in respect of an environmental guarantee during late 2008, which was done by way of a bank guarantee in January 2009.

The standard New Order Converted Prospecting Right was awarded to Tameng and contains the material clauses as outlined in Table 4:-

**Table 4 : Material Clauses of the Converted Prospecting Right**

ITEM	CLAUSE
Period	5 years commencing on the issue of the right
Prospecting Fees	Payable in accordance with the standard rates as per the Act
Mining Right Application	The Act confers this right upon the Company
Royalties	Payable in accordance with the relevant legislation



To Platmin's knowledge there are currently no legal proceedings that might influence the integrity of the Mphahlele project, the right to prospect or mine for minerals.

### **3.4 Material Agreements**

Discussed in detail as required by NI 43-101, Item 25, in Section 16.4.

### **3.5 Environmental Considerations**

Discussed in detail as required by NI 43-101, Item 25, in Section 16.5.

### **3.6 Legislative Framework**

Discussed in detail as required by NI 43-101, Item 25, in Section 16.6.

### **3.7 Royalties, Fees and Taxes**

Discussed in detail as required by NI 43-101, Item 25, in Section 16.7.

### **3.8 Claims, Servitudes, Permits and Licences**

Platmin is not aware of any land claims against the property or of any servitude that needs to be negotiated with any surface owners outside of the Mphahlele property.

Prior to the execution of the Mphahlele project, Platmin will have to acquire the necessary permits and licences to commence production. To our knowledge there are currently no legal proceedings that might influence the integrity of the Mphahlele project, the right to prospect or mine for minerals.

### **3.9 Existing Infrastructure**

Since the Mphahlele project is in the development phase, no mining, process plant, tailings ponds, or other mining infrastructure exists.

Existing infrastructure in the area includes power supplied by Eskom (the national electricity supplier), telecommunications, roads and railways, which support the surrounding mines, and is of a high calibre. Negotiations with Eskom for the supply of bulk power are ongoing. Platmin is also considering alternative power supply (diesel or heavy fuel oil (HFO) generators) in the event that Eskom is unable to supply bulk power. The mine will draw its power from neighbouring Eskom power lines either at 33kV or at 132kV.

## **4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES AND PHYSIOGRAPHY (NI 7, SR T1.5 & T1.6)**

### **4.1 Locality, Population and Access**

The Mphahlele project is located within the rural settlement areas of Mphahlele and Makurung, some 70km east of the town of Mokopane and 50km south of Polokwane (Figure 3).

The densely populated areas are located north of the mineralisation, well removed from the project area, and do not represent an impediment to future exploitation of the resource. The proposed project area is mainly rural and sufficient land is available for infrastructure, plant and tailings dams, the location of which is not restricted or confined to a single option.

Sealed roads provide access to within a few kilometres of the project area and link it directly to Polokwane and Mokopane. A large number of tracks off the main roads provide easy access to the project area.

Lebowakgomo, Mokopane and Polokwane provide urban amenities and along with local villages provide for sources of skilled and unskilled labour for future operations.

### **4.2 Climate, Vegetation and Physiography**

The climate of the project area is typical of the South African Highveld, comprising warm to hot summers and cool to cold winters. Maximum temperatures in summer are between 28°C to 32°C, whilst minimum temperatures during winters rarely reach below -4°C.

Precipitation is usually in the form of thunderstorms during summer. These sudden downpours pose some risk of flooding in low-lying areas. However, most South African mines are exposed to this weather and precautionary measures are routine on most operations. The average annual rainfall varies from 380mm to 700mm, with the peak of the rainy season occurring in January. Winters are dry and sunny. The moderate climate means that exploration and mining operations can be undertaken throughout the year, with no extraordinary measures required.

The project area consists of four habitats including rocky areas, arable plains for crops, plains with predominantly indigenous plants and drainage lines (Figure 5). The areas are covered by scrub with scattered trees interspersed with arable lands. The land is only used for scattered subsistence farming and grazing of cattle. Woodlands are found towards the south of the project. Due to the high concentration of people, wildlife in the project area, except for birds and small reptiles, is limited.

The regional topography varies between 900m and 1,100m above sea level (amsl) with the Strydpoort Mountains located to the north. Beyond the foothills of the Strydpoort Mountains, the area is a flat plain covered by a fan of alluvium emanating from the Transvaal sediments, which slopes very gently towards the Chunies River. The Chunies River flows almost parallel to the southern boundary of the property.

### 4.3 Infrastructure and Local Resources

Power and telecommunications are readily available but supplies of water could be problematic. A temporary power supply of 5MVA at 33kV has been applied for from Eskom by Platmin. The current indications by Eskom are that this capacity is readily available. A feasibility quotation has been completed and Eskom has been requested to proceed with the budget quotation. The temporary supply will only be installed when required due to the problems of theft in the area. Bulk power supply to the mine will be at 132kV from a new Eskom supply point. An application has been submitted, by Platmin for a supply of 46.6MVA building up to 51MVA in 2017. This will entail the building of a new power reticulation system to the mine and the firming up of other reticulation systems. The feasibility quotation has been accepted by Eskom and a provisional budget quotation is being prepared by them.

The Department of Water Affairs and Forestry (DWAF) is currently increasing the supply of water to the area for both mining and agriculture by the building of the De Hoop Dam and allowing additional water to be made available from the Flag Boshielo Dam.

The Olifants River Joint Water Forum (ORJWF) is the body that was formed to ensure the distribution and development of the water resources in the Steelpoort, Groothoek and Mogalakwena areas. A Memorandum of Agreement has been signed with the DWAF for the development of a water systems to the ORJWF area

The design and construction of the pipeline from the Flag Boshielo Dam to Pruizen will commence once the takeoff agreements have been signed by all the affected parties. The raw water supply will consist of a takeoff along the Flag Boshielo/Pruizen line at a point called Immerpan. The water will be pumped approximately 30km to the Baobab operation (Lonmin Platinum Limpopo) and then 18km to the Mphahlele project.

The Mphahlele project is located in an established mining area and sourcing of suitably trained and experienced mining personnel for operation and maintenance is not foreseen to be problematic.

## 5 HISTORY (NI 8, SR T1.3 & T 8, SV T1.4)

The historical ownership of the mineral rights to the Mphahlele project and the exploration conducted by these parties is summarised in Table 5.

The results of the regional Governmental Surveys, shown in Table 5, are published, however the details of the Anglo Platinum exploration are not available. There has been no mining on the property to date.