



DEPARTMENT: MINERALS AND ENERGY
REPUBLIC OF SOUTH AFRICA

MINING RIGHT

Granted in terms of section 23(1) of the Mineral and Petroleum Resources Development Act, 2002
(Act No. 28 of 2002)

Minerals and Energy for Development and Prosperity

A collection of handwritten signatures and initials in black ink, including a large stylized signature, a smaller signature, and several initials.

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Protocol No. ¹²⁶⁵ /2010
File Ref No (NC) 206 MR
Application No

LET IT HEREBY BE MADE KNOWN:

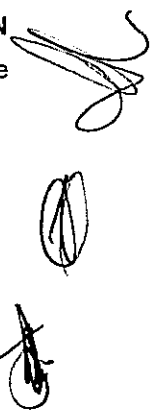
THAT on this 07th day of April in the year 2010, before me, Izak Cornelius Potgieter a Notary Public, duly sworn and admitted, residing and practising at Kimberley, in the Northern Cape Province of South Africa, and in the presence of the subscribing competent witnesses, personally came and appeared:

Pieter Frederik Swart, Regional Manager, Northern Cape Region of the Department of Minerals and Energy, and as such in his / her capacity as the duly authorised representative of:

THE MINISTER OF MINERALS AND ENERGY

The said Regional Manager, being duly authorised thereto under and by virtue of a Power of Attorney granted by the **DIRECTOR-GENERAL OR DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION** of the Department of Minerals and Energy on the 15th day of February in the year 2010 in terms of the powers delegated by the Minister on the 12th day of May 2004 in terms of section 103 (1) of the Act,

Mining Right: Granted in terms of Section 23 of the Mineral and Petroleum Resources Development Act, No. 28 of 2002

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AND

Mokgosi Jacob Nkoana in his capacity as the duly authorised representative of Ntsimbintle Mining Proprietary Limited, Registration number:

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(Hereinafter together with his/her/its successors in title and assigns referred to as "the Holder", he/she, the said representative, being duly authorised thereto under and by virtue of a power of attorney/round robin resolution of directors/members of the Holder, signed or passed at various places on various days during March in the year 2010 which power of attorney or a certified copy of a resolution has this day been exhibited to me, the notary, and remain filed of record in my protocol with the minutes hereof.)

AND THE MINISTER AND HOLDER DECLARED THAT:

WHEREAS The State is the custodian of the Nation's mineral and petroleum resources in terms of section 3 of the Act.

AND WHEREAS The Holder has applied for a mining right in terms of section 22 of the Act,

AND WHEREAS The **DIRECTOR-GENERAL OR DEPUTY DIRECTOR-GENERAL: MINERAL REGULATION** of the Department of Minerals and Energy has by virtue of powers delegated to him, granted to the Holder, a mining right in terms of section 23(1) of the Act.

NOW THEREFORE THE MINISTER GRANTS A MINING RIGHT SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

Definitions

In this mining right, the following words and expressions shall have the meanings assigned to them:

'**Act**' means the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and includes the Regulations, guidelines, circulars, directives and orders made in terms of that Act;

'**Effective date**' means 07th day of April in the year 2010 (being the date on which the environmental management programme is approved in terms of section 39(4) of the Act);

'**Environmental Management Programme**' is as defined in the Act and includes any other Environmental Management Programme approved in terms of the previous mining legislation;

'**Financial year**' means a complete financial year of the Holder which, at the time of the granting of this mining right, commences on 01st day of March in the year 2010; and ends on 28th day of February in the year 2011;

'**Holder**' is as defined in the Act, and specifically in relation to this right, it means Ntsimbintle Mining Proprietary Limited, Registration No/Identification No 200400326907;

'**Mineral**' is as defined in the Act, and specifically in relation to this right means manganese ore;

'**Mining Area**' is as defined in the Act and includes any additional area of environmental liability as may be reflected on the Environmental Management Programme relating to this right;

'**Mining right**' is as defined in the Act and includes all the Annexures to it, agreements and inclusions by reference;

'**Mining Work Programme**' is as defined in the Act and as reflected in the attached Annexure A to this mining right;

'**Minister**' means the Minister of Minerals and Energy and includes the successors in title, the assignee or any person duly authorised to act in the Minister's place and stead;

'**Regional Manager**' is as defined in the Act and specifically in relation to this right means the Regional Manager for the Northern Cape Region of the Department of Minerals and Energy; and

'**Social and Labour Plan**', is as contemplated in regulation 46 of the Regulations to the Act and is as reflected in the attached Annexure B to this mining right.

Handwritten signatures and initials, including a large signature on the left and several smaller initials on the right.

1. Description of the Mining Area

The Mining Area shall comprise the following:

Certain: **Portion of Portion 1 and portion of Portion 2 of the farm Mamatwan no 331**

Situated: **in Magisterial/Administrative District of Kuruman**

Measuring: **767.3155 hectares in extent.**

(In the case of various farms being involved, a list can be attached and referred to as **Annexure N/A**);

Which Mining Area is described in detail on the attached Diagram/plan marked **Annexure C**.

2. Granting of Mining Right

Without detracting from the provisions of sections 5 and 25 of the Act, the Minister grants to the Holder the sole and exclusive right to mine, and recover the mineral/s in, on and under the mining area for the Holder's own benefit and account, and to deal with, remove and sell or otherwise dispose of the mineral/s, subject to the terms and conditions of this mining right, the provisions of the Act and any other relevant law in force for the duration of this right.

3. Commencement, Duration and Renewal

3.1. This mining right shall commence on **07 April 2010** and, unless cancelled or suspended in terms of this clause 13 of this right and or section 47 of the Act, will continue to be in force for a period of **30 years ending on 06 April 2040**.

3.2. The Holder must commence with the mining operations within a year from the date on which the mining right becomes effective in terms of section 23 (5) of the Act, or any later date as may, upon a written request by the Holder, be authorised in writing by the Minister in terms of the Act, failing which this right may be cancelled or suspended.

3.3. Any application for renewal must be submitted to the Regional Manger not later than 60 working days prior to the date of expiry of this right.

4. Amendments, Variation and Abandonment

4.1. The terms of this right (including by extension of the area covered by it or by the addition of minerals or a share or shares or seams, mineralized bodies, or strata, which are not at the time the subject thereof) may not be amended or varied without the written consent of the Minister.

4.2. The Holder shall be entitled to abandon or relinquish the right or the area covered by the right entirely or in part. Upon abandonment or relinquishment of the mining area or any portion thereof, the Holder must:

- 4.2.1. Furnish the Regional Manager with all prospecting and /or mining results and/or information, as well as the general evaluation of the geological, geophysical and borehole data in respect of such abandoned area in so far as it applies to the mineral or any other mineral/s obtained in respect of this right and,
- 4.2.2. Apply for a closure certificate in terms of section 43 (3) of the Act.
- 4.3 With effect from the date the Holder has abandoned or relinquished a portion or portions of the mining area, and subject to section 43 of the Act, the Minister is entitled to grant any right, permit, or permission referred to in the Act in, on, or under the portion/s, so abandoned or relinquished, to any person/s.

5. Payment of Royalties

- 5.1. The Holder shall as contemplated in section 25 (2) (g) pay to the State throughout the duration of this mining right, royalties payable in terms of any Act or Amendment to an Act of Parliament implemented.

6. Payment of Interest

If mining fees, any fees, any levy, royalties or consideration referred to in clause 5 are not paid punctually, the Holder shall be in mora and shall pay interest thereon at the rate prescribed in terms of section 80 of the Public Finance Management Act, 1999(Act 1 of 1999) reckoned from the date on which payment is due and payable, to the date of actual payment.

7. Restrictions and Obligations Imposed on the Holder

- 7.1 The Holder is entitled to the rights referred to in section 5(2), (3) and section 25 of the Act, and such other rights as may be contained in this mining right or such other right as may be granted to, acquired by or conferred upon the Holder by any other applicable law.
- 7.2 Mining operations in the mining area must be conducted in accordance with the Mining Work Programme and any amendment to such Mining Work Programme and an approved Environmental Management Plan.
- 7.3 The Holder shall not trespass or enter into any homestead, house or its curtilage nor interfere with or prejudice the interests of the occupiers and/or owners of the surface of the Mining Area except to the extent to which such interference or prejudice is necessary for the purposes of enabling the Holder to properly exercise the Holder's rights under this mining right.

8. Conditions on disposal of Minerals and/ or Products Derived from Mining

It is a condition of the granting of this mining right that the Holder shall dispose of all minerals and/ or products derived from the exploitation of the mineral at competitive market prices which shall mean in all cases, non-discriminatory prices or non-export parity prices. If the minerals are sold to any entity, which is an affiliate or non-affiliated agent or subsidiary of the Holder, or is directly or indirectly controlled by the Holder, such purchaser must unconditionally undertake in writing to dispose of the minerals and any products produced from the minerals, at competitive market prices.

9. Mortgage, Cession, Transfer, Alienation

9.1 This mining right, a shareholding, an equity, an interest or participation in the right or joint venture, or a controlling interest in a company, close corporation or joint venture, may not be encumbered, ceded, transferred, mortgaged, let, sublet, assigned, alienated or otherwise disposed of without the written consent of the Minister, except in the case of a change of controlling interest in listed companies.

9.2 Any transfer, encumbrance, cession, letting, sub-letting, assignment, alienation or disposal of this right or any interest therein or any share or any interest in the Holder, without the consent of the Minister referred to in section 11(1) is of no force, no effect and is invalid.

10. Protection of Boreholes, Shafts, Edits and Openings.

All boreholes, shafts, edits, excavations, and openings sunk or made, by the Holder during the currency of this mining right shall be sealed, closed, fenced, made safe by the Holder in accordance with the approved Environmental Management Programme, the Mine Health and Safety Act, 1996 or any other applicable laws and Regulations.

11. Holder's liability for payment of Compensation for Loss or Damage

11.1. Subject to section 43 of the Act, the Holder shall, during the tenure of this right while carrying out the mining operations under this right, take all such necessary and reasonable steps to adequately safeguard and protect the environment, the mining area and any person/s using or entitled to use the surface of the mining area from any possible damage or injury associated with any activities on the mining area.

- 11.2. Should the holder fail to take reasonable steps referred to above, and to the extent that there is legal liability, the holder shall compensate such person or persons for any damage or losses, including but not limited to damage to the surface, to any crops or improvements, which such person or persons may suffer as a result of, arising from or in connection with the exercise of his/her rights under this mining right or of any act or omission in connection therewith.

12. Inspection of Mining Area

The Minister and/or any person duly authorised thereto in writing by the Minister shall be entitled to inspect the mining area, the Holder's mining operations and the execution of the approved Environmental Management Programme on the Mining Area as provided for in the Act, and any instruction conveyed in writing by the Minister to the Holder requiring the proper performance by the Holder of the Holder's obligations under this mining right shall be put into effect by the Holder in terms of the Act.

13. Cancellation or Suspension

- 13.1 Subject to section 47 of the Act, this mining right may be cancelled or suspended if the Holder:
- 13.1.1 Submits inaccurate, incorrect and or misleading information in connection with any matter required to be submitted under the Act;
- 13.1.2 Fails to honour or carry out any agreement, arrangement, or undertaking, including the undertaking made by the Holder in terms of the Broad Based Socio Economic Empowerment Charter and Social and Labour plan, on which the Minister relied for the granting of this right;
- 13.1.3 Breaches any material term and condition of this mining right;
- 13.1.4 Conducts mining operations in contravention of the provisions of the Act;
- 13.1.5 Contravenes the requirement of the approved Environmental Management Programme; or
- 13.1.6 Contravenes any provisions of this Act in any other manner.
- 13.2 Before the Minister cancels or suspends this right, the Minister shall:
- 13.2.1 Give written notice to the Holder indicating the intention to suspend or cancel this right;
- 13.2.2 Give reason/s why the Minister is considering the suspension or cancellation of this right;
- 13.2.3 Give the Holder 30 days to show reasons why the right should not be suspended or cancelled;
- 13.2.4 Notify, the mortgagee [if any], of the intention to suspend or cancel this right; and
- 13.2.5 Direct the Holder, where it is possible to remedy any contravention, breach or failure, to comply or to take such specified measures to remedy any contravention, breach or failure to comply.
- 13.3 If the Holder does not take the measures as specified by the Minister to remedy a contravention, breach or failure, the Minister may cancel or suspend this right after considering representations made by the Holder in terms of clause 13.2.3.

14. Records and Returns

- 14.1. The Holder shall maintain all such books, plans and records in regard to mining on the Mining Area as may be required by the Act and shall furnish to the office of the Regional Manager such reports and documents as may be relevant under this right.
- 14.2. The Holder shall furnish to the Regional Manager all such monthly returns contemplated in section 28 (2) A of the Act not later than the 15th day of the month following the month in respect of which it was reported.
- 14.3. The Holder shall furthermore at the end of each year following commencement of this mining right, inform the Regional Manager in writing of any new developments and of the future mining activities planned in connection with the exploitation/mining of the minerals on the Mining Area.

15. Minister's liability for Compensation

The Minister shall not at any time be liable or responsible for the payment of compensation of whatever nature to the Holder, the Holder's successors-in-title or assignee, or any person whomsoever as a result of the granting of this right.

16. Compliance with the Laws of the Republic

The granting of this Right, does not exempt the Holder and its successors in title and/or assigns from complying with the relevant provisions of the Mine Health and Safety Act, (Act No.29 of 1996) and any other law in force in the Republic of South Africa.

17. Provisions relating to section 2(d) and (f) of the Act

In the furthering of the objects of this Act, the Holder is bound by the provisions of an agreement or arrangement dated 26 & 27 September 2006 also 02, 03 & 04 October 2006 entered into between the Holder/ empowering partner and Safika Resources Pty Ltd, Women Investments Portfolio Holdings Ltd, Sunshine Street Investments 131 Pty Ltd, Bo-Mme Ba Meepo Investments Pty Ltd, The Trustees of the Kgalagadi Rural Poverty Node Charitable Trust, Natural Resources Empowerment Fund, NC Women in Mining Pty Ltd, Future Indefinite Investments 225 Pty Ltd and Nkojane Economic Prospecting and Investment Pty Ltd (the empowerment partner) which agreement or arrangement was taken into consideration for purposes of compliance with the requirements of the Act and or Broad Based Economic Empowerment Charter developed in terms of the Act and such agreement shall form part of this right.

18. Social and Labour Plan

18.1 The holder must annually, not later than three months before the end of its financial year, submit detailed implementation plan to give effect to Regulation 46(e)(i),(ii)and (iii) in line with the Social and Labour Plan.

18.2 The holder must annually, not later than three months after finalisation of its audited annual report, submit a detailed report on the implementation of the previous year's social and labour plan.

19. Severability

Notwithstanding anything to the contrary, any provision of this mining right which is contrary to any provision of the Act or which is otherwise ultra vires, null and void, voidable, or unenforceable, shall be severable from the rest of this right, such rest thus being and remaining of full force, effect and enforceable.

20. Domicilia citandi et executandi

20.1. The parties hereto choose the following addresses as their *domicilia citandi et executandi* and for all purposes arising from this mining right, in particular for the purposes of serving of any notice in terms of this mining right, and any notice properly addressed to the under mentioned postal addresses of the parties shall be deemed to have been received by the addressee within 14 days if given in writing and posted by prepaid registered post addressed to the addressee at the relevant postal address:

20.1.1. In the case of the Minister:

Physical Address	Postal Address
Liberty Corner Building, 29-31 Currey Street, Kimberley Code 8301 Tel 053 807 1700 Fax 053 832 5631	Private Bag X6093 Kimberley 8300

20.1.2. In the case of the Holder:

Physical Address	Postal Address
89 Central Street Houghton Code 2198	PO Box 652286 Benmore 2010

Tel 011 483 0840	
Fax 011 483 0655	

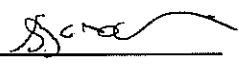
- 20.2. Notwithstanding anything to the contrary herein contained, a written notice or communication actually received by a party at any place other than the chosen *domicilia citandi et executandi* shall constitute adequate notice or communication to the party notwithstanding that it was not sent to or delivered at such party's chosen *domicilium citandi et executandi*.
- 20.3 Either party shall be entitled from time to time to change the *domicilia citandi et executandi* or postal address furnished above after giving at least 14 days prior written notice of such change to the other party, failing which the above mentioned addresses will remain in force.
- 20.4. Any written notice or communication contemplated in this clause which is forwarded by one party to the other by registered post will be presumed to have been received by the addressee on the fourteenth day following the date of posting from an address within the Republic of South Africa to the addressee at the postal address of the addressee for the time being as determined in accordance with the provisions of this clause.


21. Costs

The Holder shall pay all costs and charges incurred in connection with the execution and registration of this prospecting right.

Thus done and signed at Kimberley on the 07th day of April in the year 2010 in the presence of the undersigned witnesses:

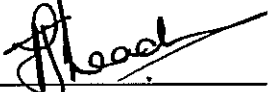
AS WITNESS:






For and on behalf of the Minister

AS WITNESS:





For and on behalf of the Holder

IZAK CORNELIUS POTGIETER
NOTARY PUBLIC / NOTARIS PUBLIEK
NORTHERN CAPE PROVINCE / NOORD-KAAP PROVINSIE
R.S.A.



DEPARTMENT OF TOURISM,
ENVIRONMENT AND CONSERVATION

ISEBE LEZOKHENKETHO, INDALO
NOLONDOLOZO

LEFAPHA LA BOJANALA, TIKOLOGO
LE TSHOMARELO

DEPARTEMENT VAN TOERISME,
OMGEWING EN BEWARING

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Enquiries :
Dipatlisiso :
Imibuzo :
Navrae :

Reference: **S.G Mbanjwa**
Tshupelo :
Isalathiso :
Verwysings :

Date :
Letlha :
Umhla :
Datum :

20th October 2009

**NNO 25/19
NC/KGA/KATHU/37/2008**

**Mr. Justin Pitt
1st Floor Wrigler Field, 57 Sloane Street, Bryanston
P.O. Box 98956
Sloane Park
2021**

Fax: 011- 575 3416

APPLICATION FOR AUTHORIZATION: GNR386: ACTIVITIES: 1a,1b,1c,1l,1n, 1q(i),7,12,13,14,15,16 AND GNR 387:ACTIVITIES: 1c,1e,1j,1s,2,5,5d,6 AND 10: ON FARM MAMATWAN 331 AND MOAB 700 AS PART OF ESTABLISHMENT OF A MANGANESE MINE , HOTAZEL, JOHN TAOLO GAETSEWE DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE.

By virtue of power conferred to me by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Regulations, 2006, the Department hereby granted authorisation **APPLICATION FOR AUTHORIZATION: GNR386: ACTIVITIES: 1a,1b,1c,1l,1n, 1q(i),7,12,13,14,15,16 AND GNR 387:ACTIVITIES: 1c,1e,1j,1s,2,5,5d,6 AND 10: ON FARM MAMATWAN 331 AND MOAB 700 AS PART OF ESTABLISHMENT OF A MANGANESE MINE , HOTAZEL, JOHN TAOLO GAETSEWE DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE.** A detailed description of the activity is given in the ENVIRONMENTAL IMPACT REPORT JULY DATED 2009, subject to the conditions listed in the environmental authorisation. The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations, 2006, you are instructed to notify all registered interested and affected parties, in writing and within Seven (7) calendar days of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the regulations.

Permit No 63/2009

A DESTINATION IN HARMONY WITH NATURE

Your attention is drawn to Chapter 7 of the Regulations which regulates appeal procedures. Should you / any person affected by this decision wish to appeal any aspect of the decision, you or a person affected by this decision must, inter alia, lodge a notice of intention to appeal, as prescribed in regulation 62 of Environmental Impact Assessment Regulations, 2006, with the Member of the Executive Council, Ministry of Tourism, Environment and Conservation within 10 days of receiving this letter, by means of one of the following methods:

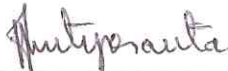
By facsimile: (053) 832 1026;

By post: Private Bag x 6102, Kimberley, 8300 or

By hand: T-Floor, MetLife Towers, Kimberley, 8300.

Should you decide to appeal, you must serve a copy of your notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection.

Yours faithfully



**MR. JJ MUTYORAUTRA – DIRECTOR
ENVIROMENTAL MANAGEMENT**

DEPARTMENT OF TOURISM, ENVIRONMENT AND CONSERVATION

Date of Decisions: 21st October 2009

**CC: METAGO MOGRABI
011- 467 0978**

**Northern Cape Province
DEPARTMENT OF
TOURISM, ENVIRONMENT
& CONSERVATION**



**Porofensi Ya Kapa Bokone
LEFAPHA LA BOJANALA,
TIKOLOGO LE
SHOMARELO**

ENVIRONMENTAL AUTHORISATION

**in terms of National Environmental Management Act, 1998 (Act No. 107 of 1998) and the
Environmental Impact Assessment Regulations, 2006**

**Authorisation Register
Number:**

PERMIT 63/2009

Reference Number:

NC/KGA/KATHU9/37/08

Last Amended:

N/A

Holder of Authorisation:

NTSIMBINTLE MINING (PTY)LTD

Location of activity:

**ON THE FARMS MAMATWAN 331 AND MOAB 700, TO THE
SOUTH OF HOTAZEL IN THE JOHN TAOLO GAETSIWE
DISTRICT MUNICIPALITY, NORTHERN CAPE.**

DEFINITIONS

"Activity" means an activity identified in Government Notice No. R. 386 and No. R. 387 of 2006 as a listed activity.

"Applicant" means a person who has submitted an application

"Application" means an application for an environmental authorization in terms of chapter 3 of these regulations (of Government Notice No. 28753)

"Basic assessment" means a process contemplated in regulation 22 of Government Notice No. 28753

"Basic assessment report" means a report contemplated in regulation 22 of Government Notice No. 28753

"EAP" means an environmental assessment practitioner as defined in regulation 1 of Government Notice No. 28753

"Environmental Management Plan" means an environmental management plan in relation to identified or specified activities envisaged in chapter 5 of the Act and described in regulation 34 of Government Notice No. 28753

"Interested and affected party" means an interested and affected party contemplated in section 24(4) (d) of the Act, and which in terms of that section includes

- Any person, group of persons or organisation interested in or affected by an activity, and
- Any organ of state that may have jurisdiction over any aspect of the activity

"Public Participation Process" means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters

"Scoping" means a process contemplated in regulation 28(e)

"Scoping report" means a report contemplated in regulation 29

"The Act" means the National Environmental Management Act, 1998 (Act No. 107 of 1998)

DECISION

The Department is satisfied, on the basis of information available to it and subject to compliance with conditions of this environmental authorisation, that the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

ACTIVITIES AUTHORISED

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises – Ntsimbintle Mining (Pty) Ltd

with the following contact details –

Justin Pitt
1st Floor Wrigley Field, 57 Sloane Str, Bryanston
P.O.Box 98956
SLOANE PARK
2021

Tel. : (011 575 3416
Fax. : (011) 575 3416

to undertake the following activity (hereafter referred " the activity")

as listed Government Notice 386, Activity No.1a; 1b; 1c; 1l; 1n;1p; 1q(i);7; 12; 13; 14; 15; 16 and Notice 387, Activity No.1c; 1e,1j,1s; 2; 5; 5d; 6; and 10 (GG. 28753) on farms Mamatwan 331 and Moab 700, as part of establishment of a manganese mine.

On farms Mamatwan 331 and Moab 700, Hotazel, John Taolo Gaetsiwe District Municipality, Northern Cape hereafter referred to as the "property".

The granting of this environmental authorisation is subject to the conditions set out below.

CONDITIONS

Scope of authorisation:

1. Authorisation of the activity is subject to the conditions contained in this authorisation, which conditions form part of the environmental authorisation and are binding on the holder of the authorisation.
2. The holder of the authorisation shall be responsible for ensuring compliance with the conditions by any person acting on his or her behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to the holder of the authorisation.
3. The activity(s) which is authorised may only be carried out at the property indicated above.
4. Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.
5. This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

General conditions:

6. A copy of this authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.

7. Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/ or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.
8. In all other cases, the holder of the authorisation must notify the Department, in writing, within 7 days if any condition of this authorisation is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance.
9. Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.
10. This authorization is subject to the approval by the relevant local authorities i.e. in terms of any relevant legislation administered by those local authorities.
11. The activity may not commence without the necessary permits/licenses/approvals and/or service agreements, where it is relevant, from or with the relevant regulatory authorities whether national, provincial or local (these include but are not limited to National Department of Environmental Affairs & Tourism, National Department of Agriculture, Department of Housing & Local Government, Department of Water Affairs & Forestry, Department of Minerals and Energy, Department of Transport, Roads & Public Works, Department Arts, Sports & Culture, South African Heritage Resources Agency, South African Civil Aviation Authority).
12. The activity, including site preparation, may not commence before the thirty (30) day appeal period expires or until such time as the Department has considered any appeals that have been lodged.
 - a. One week's written notice must be given to the Department before commencement with the activity.
 - b. Such notice shall make clear reference to the site location details and the reference number given above.
 - c. The said notice must also include proof of compliance with the following conditions described herein:
 - i. Conditions: (11 & 23)
13. The applicable conditions of this authorization must form part of all contractors' and sub-contractors' conditions of contract. A performance-based requirement with regard to environmental impact management must be included in all contracts related to any aspect of this authorization.
14. The applicant must carry out regular environmental audits to establish compliance with the conditions of this authorization and contracts.
15. Records relating to the compliance/non-compliance with the conditions of the authorization and contracts must be kept in good order. Such records must be made available to the Department within 7 (seven) days of receipt of a written request by the Department for such records.
16. Any complaints regarding the said development must be brought to the attention of the Department within 24 hours after receiving the complaint. A complaints register must be kept up to date for inspection by the Department.
17. Officials in the employ of the Department shall be given access to the property as described above (see detailed description of the activity) for the purposes of assessing and/or monitoring compliance with the conditions contained in this Record of Decision. Where the activity is located on a third party's property the applicant shall be responsible to arrange access for departmental officials.

18. This Department may add to, change and/or amend any of the conditions in this authorization if, in the opinion of the Department, the addition, change of amendment is environmentally justified. In event that such impacts exceed its significance as predicted in the independent consultant's environmental scoping report and supporting documentation, the authorization may be withdrawn after proper procedures were followed.
19. In the event of any dispute concerning the significance of a particular impact, the opinion of this department in respect of its significance will prevail.
20. This Department and any national department, provincial department, local authorities or committees appointed in terms of the conditions of this application or any other public authority or organization shall not be held responsible for any damage or losses suffered by the applicant or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the applicant with the conditions of approval as set out in this document or any other subsequent document emanating from these conditions of approval.
21. The applicant shall be responsible for all costs necessary to comply with the above conditions unless otherwise specified.
22. The applicant must apply the principle of best practicable environmental option for all technologies used/ implemented during construction.

Appeal of authorisation:

23. The holder of the authorisation must notify every registered interested and affected party, in writing and within 7 (SEVEN) calendar days, of receiving notice of the Department's decision to authorise the activity.
24. The notification referred to in 23 must –
 - specify the date on which the authorisation was issued;
 - inform the interested and affected party of the appeal procedure provided for in Chapter 8 of the regulations; and
 - advise the interested and affected party that a copy of the authorisation and reasons for the decision will be furnished on request.
25. If the applicant should appeal against this record of decision, he/she must inform all interested and affected persons that such an appeal is being lodged with the MEC and if requested, the applicant/appellant must provide those persons with reasonable access to a full copy of the appeal within a reasonable time before expiry of the thirty day appeal period.

Management of activity:

26. All mitigation measures and recommendations as laid down in the Environmental Management Plan are binding and must be implemented and strictly adhered to
27. The disturbance to the environment must be restricted to the absolute minimum.

Monitoring:

28. The applicant must appoint an Environmental Control Officer (ECO) that will have the responsibility of Implementing the approved EMP.

Recording and Reporting to the Department:

29. Records relating to compliance or non-compliance with any condition of this authorization must be kept in good order. Such records must be made available to any official from Compliance and Monitoring section of the Directorate: Environmental Management within seven (7) days of written request by the said officer.

Commissioning of the activity:

30. Seven (7) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.
31. No protected tree must be cut, disturbed, damaged or destroyed and removed without a licence from the Department of Water.

Operation of the activity:

32. Relevant Occupational Health and Safety Standards must be observed at all times.
33. A permit must first be obtained from the Department of Water Affairs and Forestry for the removal of any protected tree.
34. No other fauna must be removed before any permit from the Department of Tourism, Environment and Conservation.
35. Any comments from the Department of Transport, Roads and Public Works must be considered before the construction of the activity.
36. A monitoring protocol must be established to monitor groundwater in boreholes surrounding the mine infrastructure.
37. Ambient PM 10, SO₂ and NO₂ monitoring be done and a dust fallout monitoring network established as soon as possible for the purpose of defining baseline air quality prior to the start of operation.
38. Traffic and information signs, as well as road markings, must be provided to ensure safe access to the existing development.
39. In terms of workers at the mine, dedicated loading and off-loading facility must be provided on the property of the mine.
40. In terms of the rail crossing on Road D3457, it is required that the mining industry together with the relevant road authority engage with the rail authority in order to discuss and agree in terms of what will be required at the relevant crossing.
41. If water will be acquired from Sedibeng Water / Vaal-Gamagara scheme for water the applicant must liaise with the Kgalagadi District Municipality and Sedibeng Water Board / Vaal-Gamagara in order to determine if additional water will be made available for the proposed operation and how these systems will be operated and maintained before commencement of the proposed operation and proof (copy) of confirmation thereof must be submitted to this Department.
42. *All applicable sections of the National Water Act (No.36 of 1998) must be met and strictly adhered to.*
43. Construction must be done during normal working hours as to minimise noise impact.
44. Pollution creating activities must be minimised.
45. All waste produced during the construction period must be removed and disposed off at a registered site.
46. On site chemical toilets must be used during the construction phase.
47. Any archaeological features and artefacts discovered during the operation must be reported to SAHRA.

Site Closure and Decommissioning:

48. In case of decommissioning of the project, the holder of Environmental Authorization must rehabilitate the site to the satisfaction of this Directorate: Environmental Management.
49. The ecosystem integrity must be promoted.
50. All cleared areas should be re-seeded once the topsoil has been replaced with a seed mixture reflecting the natural vegetation as it was found.

DURATION AND PERIOD OF VALIDITY

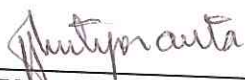
This activity(s) must commence within a period of three (3) years from the date of issue. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.

APPEAL

In terms of Chapter 7 of Environmental Impact Assessment Regulations, 2006, if the applicant or a person affected by this Decision wishes to appeal this decision, a notice of intention to appeal must be lodged within ten (10) days of being notified of the decision, and an appeal must **be lodged within thirty (30) days** of lodging of the notice to appeal to:

The Member of the Executive Council
Ministry of Tourism, Environment & Conservation
Private Bag X6102
Kimberley
8300
Fax: (053) 8321032

Appeals must comply with the provisions of Chapter 7 of Environmental Impact Assessment Regulations, 2006 Government Notice No. R. 385 of 21 April 2006.



MR. J.J. MUTYORAUTA
DIRECTOR: ENVIRONMENTAL MANAGEMENT
DATE OF ENVIRONMENTAL AUTHORISATION:

21st October 2009

ANNEXURE 1: REASONS FOR DECISION

1. Background

The applicant, Ntsimbintle Mining (Pty) Ltd, applied for authorization to carry on the following activities:
Establishment of a manganese mine on farms Mamatwan 331 and Moab 700.

The applicant appointed Ms. Colleen Parkins to undertake the Environmental Assessment Process.

The proposed activity involves one of the listed activities identified in Government Notice R 386, Activity No.1a; 1b; 1c; 1k(i); 1l; 1n; 1o; 1p; 1q(i); 1s; 7; 12; 13; 14; 15; 16 and Notice 387, Activity No.1c; 1e; 1g; 1h; 1j; 1p; 1s; 2; 5; 5d; 6; and 10 (GG. 28753). As a result the Environmental Assessment Process was followed.

2. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

The information contained in the Environmental Impact Report for the proposed establishment of mining operation on farms Mamatwan 331 and Moab 700, Hotazel.

- a) Relevant information contained in the Departmental information base including -
 - Environmental Impact Management Assessment Regulations promulgated in terms of the new Environment Management Act (No. 107 of 1989).
 - Public Participation guideline and
- b) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
- c) The findings of the site visit undertaken by Mr. H. Ndindane on **05th June 2009**.

3. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The Environmental Impact Assessment Report findings given the nature of the project, concludes that the potential impacts associated with the proposed development are of a nature and extent that can be reduced.
- b) The legal and procedural requirements have been complied with and the information contained in the Environmental Impact Assessment Report and Appendices is to the satisfaction of this Department.

4. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) Environmental Impacts associated with the proposed project can be reduced to acceptable levels if properly managed.
- b) Adequate Public Participation Process took place.
- c) The legal and procedural requirements have been complied with and the information contained in the Environmental Impact Report and Appendices is to the satisfaction of this Department.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels. The application is accordingly granted.



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093, Kimberley, 8300, Tel: 053 807 1700, Fax: 053 832 5671
Perm Building, 65 Phakamile Mabija Street, 0699

Enquiries: Mr. Takalani Khorombi Ref: NC/30/5/1/2/2/206/00083 EM
E-Mail Address: Takalani.Khorombi@dmr.gov.za
Sub-Directorate: Mine Environmental Management

The General Manager
Tshipi é Ntle Manganese Mining (Pty) Ltd
PO Box 2098
KATHU
8446

Telephone : (053) 7394700
Fax : (086) 5778636

FOR ATTENTION: Pretorius Bezuidenhout

Dear Sir,

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) (AS AMENDED) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014: RELATED TO MINING RIGHT AND RELATED INFRASTRUCTURAL ACTIVITIES ON FARM MAMATWAN NO.331 PORTION 16, 17 AND 18 IN MAGISTERIAL DISTRICT OF KURUMAN, NORTHERN CAPE PROVINCE.

With reference to the abovementioned application, please be advised that the Department has decided to **grant** environmental authorisation for in terms of National Environmental Management Act (Act 107 of 1998). The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 4 (2) of the Environmental Impact Assessment Regulations of 2014, you are instructed to notify all registered interested and affected parties, in writing within 14 (Fourteen) calendar days, from the date of the Department's decision in respect of your application and the relevant provisions regarding the lodgement of appeal must be provided for in terms of the National Appeal Regulations of 2014.

Should you wish to appeal any aspect of the decision, you must submit the appeal to the Minister of Environmental Affairs and a copy of such appeal to the Department of Mineral

Resources (Northern Cape Regional Office), within 20 days from the date of notification, and such appeal must be lodged as prescribed in by Chapter 2 of the National Appeal Regulations of 2014, by means of the methods as per prescribed below:

Appeal to the Department of Environmental Affairs

Attention : Directorate Appeals and Legal Review
Email : appealsdirectorate@environment.gov.za
By post : Private Bag X 447, **PRETORIA**, 0001
By hand : Environmental House, Corner Steve Biko and Soutpansberg Street, Arcadia, **Pretoria**,0083

Copy of the lodged appeal to the Department of Mineral Resources

Attention : Regional Manager: Northern Cape Region
By facsimile : (053) 807 1700 EXT. 1777
E-mail : Pieter.swart@dmr.gov.za
By post : Private Bag X 6093, **KIMBERLEY**, 8300
By hand : Perm Building, 65 Phakamile Mabija Street, Kimberley, 8301

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected, and a copy of the official appeal form can be obtained from the Department of Environmental Affairs.

Kind Regards

.....
REGIONAL MANAGER: MINERAL REGULATION
NORTHERN CAPE REGIONAL OFFICE
DATE:



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093, Kimberley, 8300, 65 Phakamile Mabija Street, Perm Building, Kimberley, 8301

Tel: 053 807 1700 /1748 Fax: 053 832 5671 Email: Takalani.Khorombi@dmr.gov.za

ENVIRONMENTAL AUTHORISATION

Reference Number	NC/30/5/1/2/2/0206MR / 00083MR
Last Amended	First Issued
Holder of Authorisation	Tshipi é Ntle Manganese Mining (Pty) Ltd
Location	Farm Mamatwan 331, portion 16, 17 and 18

DECISION

ACRONYMS

NEMA:	The National Environmental Management Act, 1998 (Act 107 of 1998), as amended
DEPARTMENT:	Department of Mineral Resources.
EA:	Environmental Authorisation.
IEA	Integrated Environmental Authorisation.
EMPr:	Environmental Management Programme
BAR:	Basic Assessment Report
S&EIR:	Scoping and Environmental Impact Report
I&AP:	Interested and Affected Parties
ECO:	Environmental Control Officer
SAHRA:	South African Heritage Resources Agency
EIA REGULATIONS:	EIA Regulations, 2014
MPRDA:	Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002), as amended
NEMA:WA:	National Environmental Management: Waste Act, 2008 (Act 59 of 2008), as amended
EIA:	Environmental Impact Assessment.

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the Environmental Impact Assessment Regulations, 2014, ("EIA Regulations") the department herewith **grants** environmental authorisation to the **Tshipi é Ntle Manganese Mining (Pty) Ltd** to undertake the list of activities specified in Section B below and as described in the Environmental Impact Assessment and Environmental Management Amendment Report dated March 2017.

Tshipi é Ntle Manganese Mining (Pty) Ltd
PO Box 2098
KATHU
8446

Telephone : 053 7394700
Fax : 086 5778636

FOR ATTENTION: Pretorius Bezuidenhout

Dear Sir/Madam

DECISION ON ENVIRONMENTAL AUTHORISATION

The granting of this environmental authorisation is subject to compliance with the conditions set out in Section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Tshipi é Ntle Manganese Mining (Pty) Ltd
PO Box 2098
KATHU
8446

Telephone : 053 7394700
Fax : 086 5778636

The abovementioned **Tshipi é Ntle Manganese Mining (Pty) Ltd** is the holder of this EA and is hereinafter referred to as "the holder".



B. TO UNDERTAKE THE FOLLOWING ACTIVITIES LISTED IN THE NEMA EIA REGULATION.

Activity Number: 17 Government Notice No. R.984 of 4 December 2014 –

Activity Description:

Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including associated infrastructure, structures and earthworks, directly related to the extraction 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).

- An increase in the number, position, volume and layout of waste rock dumps
- Change to the design, capacity and position of the sewage treatment plant
- Change to the stormwater management system, position including additional storage
- Change to the potable water storage facilities capacity and position
- Change to the position of the office, plant and workshop
- Change to the number, position, volume and layout (footprint) of the ore stockpiles
- Change to the design of the railway line and an increase in length
- The establishment of an additional temporary run-off-mine (ROM) stockpile area
- The establishment of a tyre bays and an establishment of additional weighbridges
- The establishment of an additional topsoil stockpile area (No. 2) and expansion of the approved topsoil stockpile area
- Change in the position secondary crushing and screening plant
- The change in the position of the approved 78MI stormwater dam
- Establishment of a clean and dirty water separation system
- Mining of the barrier pillar between the Tshipi Borwa Mine and the adjacent South 32 Mamatwan Mine.
- Widening of existing gravel haul road
- Establishment of diesel tank with capacity of 996 000 litres
- Transportation of fuel via underground pipeline

The abovementioned list is hereinafter referred to as “the listed activities”.

C. PROPERTY DESCRIPTION AND LOCATION

The listed activity will take place on ***Farm Mamatwan no.331 Portion 16, 17 and 18*** in magisterial district of Kuruman, Northern Cape Province).

Co-ordinates of the boundary of the properties are those that are described in the final site layout map attached hereto

Hereinafter referred to as "the site".

22°57'38.863E

27°21'19.108S

22°56'30.871E

27°22'27.044S

22°58'52.923E

27°22'32.847S

22°58'34.888E

27°24'20.851S

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Responsible person: Natasha Smyth

Physical address

SLR Consulting (Africa) (Pty) Ltd

SLR House (Block 7) Fourways Manor Office Park

Cnr Roos and Macbeth Street Fourways

JOHANNESBURG

2060



Postal address:

PO Box 1596

CRAMERVIEW

2060

Telephone : 011 4670945

Fax : 011 4670978

E. CONDITIONS OF AUTHORISATION

1. This environmental authorisation is conditional upon the implementation of the approved EMPr.
2. This environmental authorisation will only be effective in the event that a corresponding mining right is issued in terms of the MPRDA and none of the listed activities in this authorisation may commence without such mining right being issued.
3. This environmental authorisation does not absolve the holder of its obligation to comply with the requirements of the National Water Act and any other applicable legislation.
4. Subject to the commencement and duration requirements of the MPRDA, the EA for the listed mining activity is valid for the period for which the aforesaid right/permit is granted provided that this activity must commence within 10 years.
5. The commissioning and decommissioning of individual activities within the overall listed mining activities must take place within the time periods as set out in the EMPr.
6. The listed activities, including site preparation, must not commence within 30 (twenty) calendar days of the date of the notification of the decision being sent to the registered Interested and Affected Parties ("I&APs"). In the event that an

appeal is lodged with the appeal administrator, the effect of this environmental authorisation is suspended until such time as the appeal is decided.

7. The applicant must in writing, within 14 (fourteen) calendar days of the date of this decision and in accordance with Regulation 4(2) of the EIA Regulations.

7.1 Notify all registered I&APs of –

- 7.1.1 the outcome of the application;
- 3.1.2. the reasons for the decision as included in Annexure 1;
- 3.1.3. the date of the decision; and
- 3.1.4. the date of issue of the decision;

- 6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulation, 2014 detailed in Section F below; and

- 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision.

6.4 Provide the registered Interested and Affected Parties with:

- 3.5.1 name of the holder (entity) of this Environmental Authorisation;
- 3.5.2 name of the responsible person for this Environmental Authorisation;
- 3.5.3 postal address of the holder;
- 3.5.4 telephonic and fax details of the holder; and
- 3.5.5 e-mail address if any.

5. The holder is responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.

6. The holder of the EA must implement an Emergency Preparedness Plan and review it biennially when conducting audit and after each emergency and major incident. The holder must notify the competent authority in writing, within 24 hours thereof of the occurrence.
7. This EA only authorises activities specified in the EMPr and a new EA must be applied for in respect of any new activity not specified as part of the EMPr
8. A copy of the environmental authorisation and the EMPr must be kept at the site where the listed activity will be undertaken. Access to the site must be granted to any authorised official representing a competent authority. The environmental authorisation and EMPr must be available on site to the aforesaid authorised official on request at all times.
9. Whenever any of the applicant's contact details, physical or postal address and/ or telephonic details change, the applicant must notify the competent authority in writing to that effect.
10. Non-compliance with a condition of this environmental authorisation or EMPr may result in the issuing of a directive in terms of section 28 and or a compliance notice in terms of section 31L of NEMA.
11. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from the Provincial Heritage Resources Authority. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings; shipwrecks; and graves or unmarked human burials.



12. A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.
13. The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, for the all phases/ of implementation before commencement of any land clearing to ensure compliance with the EMPr and the conditions contained herein.
14. The holder of the environmental authorisation must:
 - 14.1 annually assess the environmental liabilities of the operation by using the master rates in line with the applicable Consumer Price Index (CPI) at the time and address the shortfall on the financial provision submitted in terms of section 24P of NEMA.
15. The holder of the authorisation must appoint an independent auditor to audit the site biennially. This auditor must compile an audit report documenting the findings of the audit.

The audit report must:

- 15.1 specifically state whether conditions of this environmental authorisation and EMPr are adhered to;
- 15.2 identify and assess any new impacts and risks as a result of undertaking the activity/ies, if applicable;
- 15.3 identify shortcomings in the EMPr, if applicable;
- 15.4 identify the need, if any, for any changes to the management, avoidance and mitigation measures provided for in the EMPr ;
- 15.5 if applicable, specify that the corrective action/s taken for the previous audit's non-conformities, was adequate; and
- 15.6 be submitted by the holder to the competent authority within 30 calendar days from the date on which the auditor finalised the audit.

Should any shortcomings in terms of Regulation 34(4) be identified, the holder must submit recommendation to amend the EMPr in order to rectify any shortcomings identified with the aforementioned audit report.

- 16 An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.
- 17 No surface or ground water may be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
- 18 The applicable requirements with respect to relevant legislation pertaining to cutting, damaging, disturbing or destroying protected trees or trees from a natural forest must be adhered to.
- 19 The applicable requirements with respect to relevant legislation pertaining to occupational health and safety must be adhered to.
- 20 This approval doesn't purport to absolve from their common law obligations towards the owner(s) of the surface of land affected.
- 21 Mining activities must conform to all legislation and such other conditions as may be imposed by the Regional Manager or any other official of this office, duly authorized thereto.
- 22 The Department is responsible for all surface disturbances on the mining area, which includes all historical surface disturbances.
- 23 The operation must comply with GN 704 (Regulations on use of water for mining and related activities aimed at the protection of water resources).



- 24 No waste will be allowed to be deposited in a natural drainage lines, erosion gullies and or dongas, unless agreed thereto in writing with the Regional Manager.
- 25 The operation must implement and control measures that will prevent the pollution of any water resource by oil, grease, fuel or chemicals.
- 26 All topsoil must be stripped and stockpile for the future rehabilitation.
- 27 During the operation must ensure that it comply with all declared weeds must be controlled continuously in terms of Reg.15 and 16 of Act 43 of 1983.
- 28 At all the times keep any natural water free from any matter or obstruction which may affect the efficiency thereof
- 29 The environment affected by this operation shall be rehabilitated by the holder of the right holder.
- 30 Regular monitoring of all the environmental management measures shall be done to ensure that the conditions are being adhered to.

F. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations 2014.

1. An appellant must –

- 1.1. submit an appeal in accordance with Regulation 4 to the appeal administrator, within 30 (twenty) calendar days from the date the applicant notified registered I&APs of this decision;



- 1.2. If the appellant is the applicant, provide any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;
 - 1.3. If the appellant is a person other than the applicant, provide any registered I&AP, any Organ of State and the decision-maker with a copy of the appeal lodged with the appeal administrator;
- 1.2 The applicant (if not the appellant) the decision-maker, I&APs and Organ of State must submit their responding statement, if any, to the appeal authority and the appellant within 20 days from the date of receipt of the appeal submission.

1.3 The appeal form/s must be submitted by means of one of the following methods:

By post: Attention: Appeals and Review Directorate
 The Minister
 Department of Environmental Affairs
 Private Bag X 447
 PRETORIA
 0001

Tel: (012) 399 9356

By hand: Environmental House, Corner Steve Biko and Soutspanberg,
 Arcardia, Pretoria, 0083

By e-mail: Appealsdirector@environment.gov.za

An electronic copy (word document format) of the appeal and it supporting documents must also be submitted. Mr Ziyaad Hassam

1.4 A prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of the appeal authority/ at URL <http://www.deat.gov.za>



G. DISCLAIMER

The Department of Mineral Resources in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully



MR. PIETER SWART
REGIONAL MANAGER: MINERAL REGULATION (NORTHERN CAPE)

DATE OF DECISION: 3/1/2015

ANNEXURE 1: REASONS FOR THE DECISION

In reaching its decision, the competent authority, *inter alia*, considered the following:

- a) The information contained in the, application form as received by the competent authority on the 31 August 2017, the Environmental Impact Assessment and Environmental Management Amendment Report ("EIA and EMAR")
- b) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA");
- c) The comments received from Interested and Affected Parties ("I&APs") and the
- d) The sense of balance of the negative and positive impacts and proposed mitigation measures; and
- e) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

All information presented to the competent authority was taken into account in the consideration of the application for environmental authorisation. A summary of the issues which, according to the competent authority, were the most significant reasons for the decision is set out below.

1. Public Participation

The PPP conducted as part of the EIA process included:

- identification of and engagement with I&APs;
- A notices were also placed on the different places and on the notice board at the close vicinity of the project site.
- giving written notice to the owners and occupiers of land adjacent to the site and any alternative site where the listed activity is to be undertaken, the municipality ,



and the various Organs of State having jurisdiction in respect of any aspect of the listed activities.

All the concerns raised by I&APs were responded to and adequately addressed during the PPP. Specific management and mitigation measures have been considered in this environmental authorisation and in the EMP/closure plan to adequately address the concerns raised.

The Department concurs with the Environmental Assessment Practitioner's responses to the issues raised during the PPP and has included appropriate conditions in this environmental authorisation.

2. Impacts, assessment and mitigation measures

2.1. Activity Need and Desirability

Taking the above into considered the mine will result in continued positive socio-economic impacts. The mine already contributes to the national South African economy at macro level by exporting its product that leverages foreign income into the country. The direct economic benefits derived from wages and services, taxes and profits. Indirect economic benefits derives from the procurement of goods and services and the buying power of employees.

2.2. Topsoil management

- Topsoil shall be removed from all areas where physical disturbance other surface will occur
- The topsoil removed, shall be stored in a bund wall on the high ground side of the mining area outside the 1:50 flood level within the boundaries of the mining area.
- Topsoil shall be kept separate from overburden and shall not be used for building or maintenance of access roads.



- The topsoil stored in the bund wall shall be adequately protected from being blown away or being eroded.

2.3. Waste management

- Chemical toilet facilities or other approved toilet facilities such as a septic drain shall preferably be used and sited on the camp site in such a way that they do not cause water or other pollution.
- All effluent water from the camp washing facility shall be disposed of in properly constructed French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole.
- Only domestic type wash water shall be allowed to enter this drain and any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, either for resale or for appropriate disposal at a recognised facility.

2.4. Biodiversity

- All remaining natural corridors identified as significant biodiversity features must be mapped identified as “no-go area”.
- No flora may be removed, damaged or disturbed except to the extent necessary for the carrying out the work.

2.5. Oil spillage

- Spills shall be cleaned up immediately and/or the removing the spillage together with the polluted to the satisfaction manner.
- Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., shall be stored in a container at a collecting point and collected on a regular basis and disposed of at a recognised disposal facility. Specific precautions shall be taken to prevent refuse from being dumped on or in the vicinity of the camp site.



- Biodegradable refuse generated from the office/camp site, processing areas vehicle yard, storage area or any other area shall either be handled as indicated above or be buried in a pit excavated for that purpose and covered with layers of soil, incorporating a final 0,5 metre thick layer of topsoil (where practicable).

2.6 Rehabilitation of excavated areas.

- Rocks and coarse material removed from the excavation must be dumped into the excavation simultaneously with the tailings.
- Waste will not be permitted to be deposited in the excavations.
- Once excavations have been refilled with overburden, rocks and coarse natural materials and profiled with acceptable contours and erosion control measures, the topsoil previously stored, shall be returned to its original depth over the area.
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, the Regional Manager may require that the soil be analyzed and any deleterious effects on the soil arising from the mining/ mining operation, be corrected and the area be seeded with a vegetation seed mix to his or her specification.

3. NEMA Principles

The NEMA Principles (set out in Section 2 of NEMA, which apply to the actions of all Organs of State, serve as guidelines by reference to which any Organ of State must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;
- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;



- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between Organs of State through conflict resolution procedures; and
- the selection of the best practicable environmental option.

4. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this environmental authorisation, and compliance with the EMP/closure plan, the competent authority is satisfied that the proposed listed activity/ies will not conflict with the general objectives of Integrated Environmental Management stipulated in Chapter 5 of NEMA and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

-END-





water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Beard Street, Pretoria,
Tel: (012) 336-7500 Fax: (012) 323-4472 / (012) 326-2715

**LICENCE IN TERMS OF CHAPTER 4 OF THE
NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)**

I, **Margaret-Ann Diedricks**, in my capacity as Director-General in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorise the following water uses in respect of this licence:

SIGNED:

DATE: 19th APRIL 2015

**LICENCE NO: 10/D41K/AGJ/1735
FILE NO: 27/2/2/D1141/C/1**

1. Licensee: Tshipi e Ntle Manganese Mining (Pty) Ltd
**Postal Address: P.O Box 652286
Johannesburg
2010**

2. Water Uses

- 2.1 Section 21(a) of the Act: Taking of water from a water resource, subject to the conditions set out in Appendices I and II.
- 2.2 Section 21(b) of the Act: Storage of water, subject to the conditions set out in Appendices I and III.
- 2.4 Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions as set out in Appendices I and IV.
- 2.6 Section 21(j) of the Act: Removing, discharging or disposing of water found underground, subject to the conditions set out in Appendices I and V.

B 04959



3. Properties on which water uses will be exercised

Table 1: Water uses and properties

Water Uses	Properties	Registered Owner
Section 21 (a)	Mamathwan 331 RD Portion 16 and 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (b)	Mamathwan 331 RD Portion 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (g)	Mamathwan 331 RD Portion 16 and 17	Tshipi e Ntle Manganese Mining (Pty) Ltd
Section 21 (j)	Mamathwan 331 RD Portion 17	Tshipi e Ntle Manganese Mining (Pty) Ltd

4. Registered Owner of the Properties

4.1 Tshipi e Ntle Manganese Mining (Pty) Ltd

5. Licence and Review Period

5.1 This licence is valid for a period of twenty six (26) years from the date of issuance and may be reviewed every five (5) years.

6. Definitions

"Any terms, words and expressions as defined in the National Water Act (Act 36 of 1998) shall bear the same meaning when used in this licence, unless specifically stated otherwise."

"The Provincial Head" means the Provincial Head: Northern Cape, Department of Water and Sanitation, Private Bag X6101, Kimberley, 8300.

"The Act" means the National Water Act, (Act 36 of 1998).

"Report" refers to the reports entitled:

- Geo-hydrological Report prepared by Water Geoscience Consulting, dated 27 February 2009;
- Water Quality Management Report and Waste Management Plan prepared by SLP Global Environmental Solutions, dated 12 June 2013;
- Civil Design for the Storm Water Dam prepared by CICON Consulting Engineering, dated 21 October 2011;
- Environmental Management Plan prepared by Metago Environmental Engineers (Pty) Ltd, dated 20 May 2009;
- Environmental Impact Assessment prepared by Metago Environmental Engineering (Pty) Ltd, dated 23 May 2009;
- Integrated Water and Waste Management Plan (IWWMP) prepared by SLP Global Environmental Solutions, dated 12 June 2013; as well as all other related documentation and communication (e-mails, letters, verbal, etc) related thereto.



7. Description of the Project

Tshipi e Ntle Manganese Mining (Pty) Ltd is authorised to undertake Section 21(a), (b), (g) and (j) water uses in terms of Section 40 of the National Water Act, 1998 (Act 36 of 1998) associated with the mining of manganese ore on Portion 2 of the Farm Mamatwan 331 and Portion 3 (a Portion of Portion 1) of the Farm Diabiaghomo 226). The mine and associated activities are located in the Lower Vaal Water Management Area within Quaternary Catchment D41K.



APPENDIX I

General conditions of the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.
4. If the property(ies) in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head of the Department within sixty (60) days of the said change taking place.
5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.
6. The Licensee shall be responsible for any water use charges or levies imposed by a Responsible Authority.
7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it shall be given effect to.
8. The licence shall not be construed as exempting the Licensee from compliance with the provisions any other applicable Act, Ordinance, Regulation or By-law.
9. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
10. The Licensee shall conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Provincial Head within one (1) month of finalisation of the audit
11. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within three (3) months after the date this licence is issued and a report on the audit shall be submitted to the Provincial Head within one (1) month of finalization of the report.
12. Flow metering, recording and integrating devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two (2) years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.

13. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within twenty four (24) hours.
14. The Licensee must provide written proof from an independent laboratory that the stockpile material and waste rock dump material emanating from this project are Type 4 waste according to Regulation 36784 Articles 634 & 635.

A handwritten signature in black ink, consisting of a large, loopy initial 'D' followed by a smaller, less distinct signature.

APPENDIX II

Section 21 (a) of the Act: Taking water from a water resource

1. The Licensee is authorised to take a maximum quantity of water in cubic metres per annum (m^3/a) from two (2) boreholes and a mining pit as indicated in Table 2.

Table 2: Section 21 (a) water use activity

Purpose	Volume (m^3/a)	Property Description	Co-ordinates
Taking water from an open (dewatering) pit for mining purposes	57 720 m^3/a	Mamathwan 331 RD Portion 17	27°22'47.4"S 22°57'55.0"E
Taking water from the borehole (TSH01) for mine processing	12 612 m^3/a	Mamathwan 331 RD Portion 16	27°22'52.2"S 22°56'58.8"E
Taking water from the borehole (TSHI02) for potable and emergency water use	12 612 m^3/a	Mamathwan 331 RD Portion 16	27°22'36.7"S 22°57'20.3"E

2. The quantity of water authorised to be taken in terms of this licence may not be exceeded without prior authorisation by the Department.
3. This licence does not imply any guarantee that the said quantities and qualities of water will be available at present or at any time in the future.
4. The above mentioned volume may be reduced when the licence is reviewed.
5. The Licensee shall continually investigate new and emerging technologies and put into practice water efficient devices or apply technique for the efficient use of water containing waste, in an endeavour to conserve water at all times.
6. The Licensee shall be responsible for any water use charges or levies, which may be imposed from time to time by the Department or responsible authority in terms of Department's Raw Water Pricing Strategy.
7. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of:
 - 7.1 shortage of water
 - 7.2 inundations or flood
 - 7.3 siltation of the resource; and
 - 7.4 required reserve releases.
8. The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders with respect to Water Conservation and Water Demand Management initiatives.



APPENDIX III

Section 21 (b) of the Act: Storing of water

1. Storing of Water

- 1.1 The Licensee is authorised to store a maximum quantity of treated water in cubic metres per annum (m^3/a) in a reservoir as indicated in Table 3.

Table 3: Section 21 (b) water use activity

Purpose	Capacity/ Volume (m^3 , tonnes and/or $m^3/annum$)	Property Description	Co-ordinates
Storing potable water from Sedibeng Water Board in a water tank for domestic use	2000 m^3	Mamathwan 331 RD Portion 17	27°23'37.0"S 22°58'01.3"E
Storing water in a temporary dam for construction activities	9000 m^3	Mamathwan 331 RD Portion 17	27°23'31.6"S 22°58'03.1"E

- 1.2 The Licensee must obtain any proprietary rights or servitudes at their own cost.
- 1.3 The Licensee is not exempted from compliance with any applicable Dam Safety Regulations.

2. Monitoring Requirements

- 2.1 The Licensee is not indemnified from any detrimental effect that the dam(s) may have on other properties. The Department does not accept any responsibility or liability for any damages or losses that may be suffered by any other party as a result of the construction and utilisation of the dams.
- 2.2. Suitable measuring structures must be constructed up-stream and down-stream of the dam to measure the flow entering and leaving the dam and this information must be available on request.
- 2.3 The Licensee shall establish a monitoring programme and the date and time of monitoring in respect of each sample taken. Sample shall be recorded together with the results of the analysis as well as other significant information (low flow, flooding, pollution incident, etc.).
- 2.4 The quantity of water stored shall be recorded as at the last day of each month.

3. Dam Safety Requirements

- 3.1 The construction, operation, and maintenance of all dam facilities classified as a dam with a safety risk, must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990).

3.2 The Licensee shall supply any information, drawings, specifications, design assumptions, calculations, documents and test results when requested by the Provincial Head.

3.3 The Licensee is not exempted from compliance with any applicable Dam Safety Regulations published under Government notice R.139 of July 2012, read with Chapter 12 of the Act.

4. Construction of Dam(s)

4.1 The as-built plans and specifications of the dam(s) must be submitted to the Provincial Head for his/her records.

4.2 The Government reserves the right to construct storage works at any time in any stream and to store all surplus water reaching the dam(s) and to control the allocation of such water.

4.3 Construction of the dam(s) may not commence unless the required authorisation to build has been issued by the Dam Safety Office of the Department.



APPENDIX IV

Section 21 (g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource

1. CONSTRUCTION, OPERATION AND MAINTENANCE

1.1 The Licensee shall carry out and complete all the activities, including the construction and operation of the facilities indicated in Table 4, according to the Report and according to the final plans submitted with the integrated water use licence application.

Table 4: Details of waste water management facilities

Purpose	Capacity/ Volume (m ³ , tonnes and/or m ³ /annum)	Property Description	Co-ordinates
Storing water from the tailings facility in a return water dam	15 768m ³	Mamathwan 331 RD Portion 16	27°22'25.1"S 22°56'35.7"E
Storing water into Dirty water dam	613 200 m ³ /a /10 678.4m ³	Mamathwan 331 RD Portion 16	27°23'30.9"S 22°57'48.1"E
Workshop collection dam	1446 m ³ /a	Mamathwan 331 RD Portion 16	27°23'20.1"S 22°57'38.2"E
Tailling/Slimes dam	85 838 m ³ /a/227 760 tons	Mamathwan 331 RD Portion 16	27°22'28.7"S 22°56'42.7"E

- 1.2 The construction of the dams listed in Table 4 must be carried out under the supervision of a professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990).
- 1.3 Within 30 days after the completion of the water use activities listed in Table 4 in accordance with the relevant provisions of this licence, the Licensee shall in writing; under reference 27/2/2/D1041/7/9, inform the Provincial Head thereof. This shall be accompanied by a signature of approval from the registered civil design professional confirming that the construction was done according to the design plans referred to in the Report.
- 1.4 The Licensee must ensure that the disposal of the waste water and the operation and maintenance of the system are done according to the provisions in the Report.
- 1.5 The Licensee shall as well submit a set of as-built drawings to the Provincial Head after the completion of the waste facilities listed in Table 4.
- 1.6 The waste facilities listed in Table 4 shall be operated and maintained to have a minimum freeboard of 0.8 metres above full supply level and all other water systems related thereto shall be operated in such a manner that it is at all times capable of handling the 1:50 year flood-event on top of its mean operating level.



1.7 The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.

2. STORAGE OF WASTE OR WATER CONTAINING WASTE

2.1 The Licensee is authorised to dispose of a maximum quantity in cubic metres (m³) of waste or water containing waste per annum into the waste management facilities on the property described in Table 5:

Table 5: Disposal of Waste/Water containing Waste

Purpose	Capacity/ Volume (m ³ , tonnes and/or m ³ /annum)	Property Description	Co-ordinates
Storing dirty water from tailings facility in return water dam	15 768m ³	Mamathwan 331 RD Portion 16	27°22'25.1"S 22°56'35.7"E
Storing dirty water in dirty water dam	613 200 m ³ /a /10 678.4m ³	Mamathwan 331 RD Portion 16	27°23'30.9"S 22°57'48.1"E
Workshop collection dam	1446 m ³ /a	Mamathwan 331 RD Portion 16	27°23'20.1"S 22°57'38.2"E
ROM primary product stockpile	24 260 tons	Mamathwan 331 RD Portion 17	27°23'07.5"S 22°58'06.8"E
Low grade product stockpile	100 000 tons	Mamathwan 331 RD Portion 16	27°23'14.1"S 22°57'44.9"E
Lumpy product stockpile	2 040 000 tons	Mamathwan 331 RD Portion 16	27°23'32.1"S 22°58'09.1"E
Fines product stockpile	480 000 tons	Mamathwan 331 RD Portion 17	27°23' 31.7"S 22°58' 10.8"E
Eastern waste rock dump	62 160 tons	Mamathwan 331 RD Portion 17	27°23'48.9"S 22°58'24.8"E
Western waste rock dump	34 663 tons	Mamathwan 331 RD Portion 16 and 17	27°22'52.0"S 22°57'16.8"E
Taillings/slimes dam	85 838 m ³ /a/227 760 tons	Mamathwan 331 RD Portion 16	27°22'28.7"S 22°56'42.7"E
Dust suppression	105 996 m ³ /a	Mamathwan 331 RD Portion 16, 17 and 18	Various areas on mining properties

2.2 The quantity of water containing waste authorised to be disposed of in terms of this licence may not be exceeded without authorisation from the Provincial Head.

3. MONITORING

3.1 The Licensee shall monitor on monthly basis the water resources at groundwater monitoring points to determine the impact of the facility and other mining activities on the water quality by taking samples at the monitoring points as indicated in Table 6:

Table 6: Ground water monitoring points



Borehole ID	Latitude (S)	Longitude (E)	Depth	Purpose
(TSH01)	27°22'47.4"S	22°57'55.0"E	30m	Down gradient, shallow groundwater level/quality
(TSH02)	27°22'36.7"S	22°57'20.3"E	30m	Down gradient, shallow groundwater level/quality

- 3.2 The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.
- 3.3 Monitoring points must not be changed prior to notification to and written approval by the Provincial Head.
- 3.4 An Aquatic Scientist approved by the Provincial Head must establish a monitoring programme for the following indices: Invertebrate Habitat Assessment System (IHAS) and the latest SASS (South African Scoring System). Sampling must be done once during the summer season and once during the winter season, annually, to reflect the status of the river upstream and downstream of the wastewater contaminated facilities as indicated in Table 6
- 3.5 Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), in terms of the Standards Act, 1982 (Act 30 of 1982).
- 3.6 The methods of analysis shall not be changed without prior notification to and written approval by the Department.
- 3.7 Proper ground and surface water monitoring network should be established to monitor the quality and quantity of groundwater as per the Report recommendation and ensuring that water used by other water users are safeguarded in accordance to Chapter 14 of the National Water Act, 1998.

4 WATER RESOURCE PROTECTION

- 4.1 The impact of the activities of the wastewater containment facilities on groundwater shall not exceed the interim resource water quality objective (RWQO) for the management unit as detailed in the Water Quality Reserve for the area as set out in Table 7:

Table 7: Resource quality objectives

Parameters	Groundwater quality reserve
Sodium (mg/l)	100 – 200
Total Dissolved Solids	450 – 1000
Magnesium (mg/l)	30 -70
Calcium (mg/l)	80 – 150
Chloride (mg/l)	100 – 200
Sulphate (mg/l)	200 – 400
Faecal coliforms	0 – 1
Nitrate (mg/l)	6 – 10
Fluoride (mg/l)	1 – 1.5
Ph	5 – 6& 9 – 9.5
Electrical Conductivity	70 – 150

5 REPORTING

- 5.1 The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.
- 5.2 The Licensee shall submit the results of analysis for the monitoring requirements to the Provincial Head on a quarterly basis under the reference number 27/2/2/B312/6/4.
- 5.3 The Licensee shall submit the nature and the quality of waste disposed of into the following wastewater facilities:
- 5.3.1 Pollution control dams
 - 5.3.2 Return water dam
 - 5.3.3 Workshop collection dam
 - 5.3.4 Talling/slimes dam
 - 5.3.5 Office French drains for sewage disposal

6. STORMWATER MANAGEMENT

- 6.1 Stormwater leaving the Licensee's premises shall in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.
- 6.2 Increase runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the stream.
- 6.3 Stormwater shall be diverted from the mine complex site and roads and shall be managed in such a manner as to disperse runoff and concentrating the stormwater flow.
- 6.4 Where necessary works must be constructed to attenuate the velocity of any stormwater discharge and to protect the banks of the affected watercourses.
- 6.5 Stormwater control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.
- 6.7 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the streams.
- 6.8 All stormwater that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.

6.9 Polluted stormwater captured in the stormwater control dams shall be pumped back to the processing plant for reuse and recycling.

7. PLANT AREAS AND CONVEYANCES

7.1 Pollution caused by spills from the conveyances must be prevented through proper maintenance and effective protective measures especially near all stream crossings.

7.2 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled material back into the system. The system shall be maintained in a state of good repair and standby pumps must be provided.

7.3 Any hazardous substances must be handled according to the relevant legislation relating to the transport, storage and use of the substance.

7.4 Any access roads or temporary crossings must be:

7.4.1 non-erosive, structurally stable and shall not induce any flooding or safety hazard and;

7.4.2 repaired immediately to prevent further damage.

8. ACCESS CONTROL

8.1 Strict access procedures must be followed in order to gain access to the property. Access to the waste water containment facilities must be limited to authorised employees of the Licensee and their contractors only.

8.2 Notices prohibiting unauthorised persons from entering the controlled access areas as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.

9. CONTINGENCIES

9.1 Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

9.1.1 operating errors;

9.1.2 mechanical failures (including design, installation or maintenance);

9.1.3 environmental factors (e.g. flood);

9.1.4 loss of supply services (e.g. power failure); and

9.1.5 other causes.

9.2 The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

- 9.3 The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:
- 9.3.1 correct the impacts resulting from the incident;
 - 9.3.2 prevent the incident from causing any further impacts; and
 - 9.3.3 prevent a recurrence of a similar incident.

10. AUDITING

- 10.1 The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Provincial Head within one (1) month of finalisation of the report, and shall be made available to an external auditor should the need arise.
- 10.2 The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within six (6) months of the date this licence was issued and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.

11. INTEGRATED WATER AND WASTE MANAGEMENT

- 11.1 The Licensee must update an Integrated Water and Waste Management Plan (IWWMP), which must together with the updated Rehabilitation Strategy and Implementation Programme (RSIP), be submitted to the Provincial Head for approval within one (1) year from the date of issuance of this licence.
- 11.2 The IWWMP and RSIP shall thereafter be updated and submitted to the Provincial Head for approval, annually.
- 11.3 The Licensee must, at least one hundred and eighty (180) days prior to the intended closure of any facility, or any portion thereof, notify the Provincial Head of such intention and submit any final amendments to the IWWMP and RSIP as well as a final Closure Plan, for approval.
- 11.4 The Licensee shall make full financial provision for all investigations, designs, construction, operation and maintenance for a water treatment plant should it become a requirement as a long-term water management strategy.

12. GENERAL CONDITIONS

- 12.1 Water samples must be taken from all the monitoring boreholes by using approved sampling techniques and adhering to recognized sampling procedures. Samples should be analyzed for both organic as well as inorganic pollutants, as mining activity often lead to hydrocarbon spills in the form of diesel and oil. At least the water quality parameters on Table 7 should be analyzed.

- 12.2 Water samples should be recorded on a data sheet. It is proposed that the data should be entered into an appropriate computer database and reported to the Department.
- 12.3 The final backfilled opencast topography should be engineered such that runoff is directed away from the opencast areas.
- 12.4 The Licensee must ensure in advance that alternative water supply for external water users is provided to these users should groundwater resources be impacted
- 12.5 Pollution control dam must be designed in such a manner that any spillage can be contained and reclaimed without any impact on the surrounding environment. A plan must be in place to stop overflowing in dams during the rainy season.
- 12.6 Geochemical assessments should be done on the discard material during the mining operation.
- 12.7 The Licensee shall at all times together with the conditions of this licence adhere to the Regulations on use of water for mining and related activities aimed at the protection of water resources (Government Notice 704 of 4 June 1999).



APPENDIX V

Section 21 (j) of the Act: Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people

1. This licence authorises the removal, discharging or disposing of a maximum volume of water found underground for the efficient continuation of an activity as set out in Table 8:

Table 8: Section 21 (j) water use activities

Purpose	Volume (m ³ , m ³ /annum)	Property Description	Co-ordinates
Open pit dewatering	57 720 m ³ /a	Mamathwan 331 RD Portion 17	27°22'47.7"S 22°51'55.0"E

2. The quantity of the water authorised to be removed and disposed of into the pollution control dam in terms of this license may not be exceeded without prior authorisation by the Department.
3. The Licensee shall provide any water user whose water supply is impacted by the water use with potable water.
4. The quantity of water removed from underground must be metered and recorded on a daily basis.
5. Groundwater levels shall be monitored every six (6) months (once in the beginning of the dry season and once in the beginning of the wet season).
6. Self-registering flow meters must be installed in the delivery lines at easily accessible positions near the dewatering points.
7. The flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two (2) years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.
8. Calibration certificates in respect of the pumps must be submitted to the Provincial Head after installation thereof and thereafter at intervals of two years.
9. The date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis.
10. Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards, in terms of the Standards Act, 1982 (Act 30 of 1982).
11. The methods of analysis shall not be changed without prior notification to the Licensee and

written approval by the Provincial or his/her delegated nominee.

12. The Provincial Head must be informed of any incident that may lead to groundwater being disposed of contrary to the provisions of this license, by submitting a report containing the following information:
 - 12.1 nature of the incident (e.g. operating malfunctions, mechanical failures, environmental factors, loss of supply services, etc);
 - 12.2 actions taken to rectify the situation and to prevent pollution or any other damage to the environment; and
 - 12.3 measures must be taken to prevent re-occurrence of any similar incident.
13. The Licensee shall follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the groundwater removal system.
14. Reasonable measures must be taken to provide for mechanical, electrical or operational failures and malfunctions of the underground water removal system.

[END OF LICENCE]



