



NORTH-WEST UNIVERSITY[®]
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

BACHELOR OF SCIENCE

in

ENVIRONMENTAL AND BIOLOGICAL SCIENCES

awarded to

DANIEL CORNELIUS LABUSCHAGNE

after complying with all the requirements

Dr T Eloff
Vice-Chancellor

16 March 2012



Prof NT Mosia
Registrar

University number: 21618100
Serial number: 126062



NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

HONOURS BACHELOR OF SCIENCE

in

ENVIRONMENTAL SCIENCES

awarded to

DANIEL CORNELIUS LABUSCHAGNE

WITH DISTINCTION

after complying with all the requirements

Dr T Eloff
Vice-Chancellor

27 February 2013



Prof NT Mosia
Registrar

University number: 21618100
Serial number: 148535



NORTH-WEST UNIVERSITY[®]
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

MASTER OF SCIENCE

in

GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT

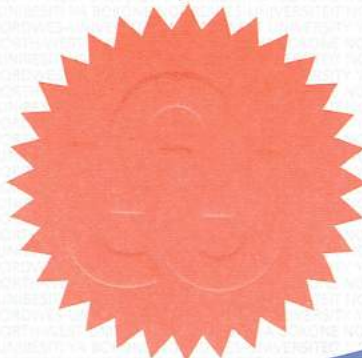
awarded to

DANIEL CORNELIUS LABUSCHAGNE

after complying with all the requirements

Prof ND Kgwadi
Vice-Chancellor

19 May 2015



Prof M Verhoef
Registrar

University number: 21618100
Serial number: 225004



NORTH-WEST UNIVERSITY[®]
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT



Centre for Environmental Management

This is to certify that

DC LABUSCHAGNE
9009135031088

successfully completed the short course on:

Implementing Environmental Management Systems (ISO 14001)

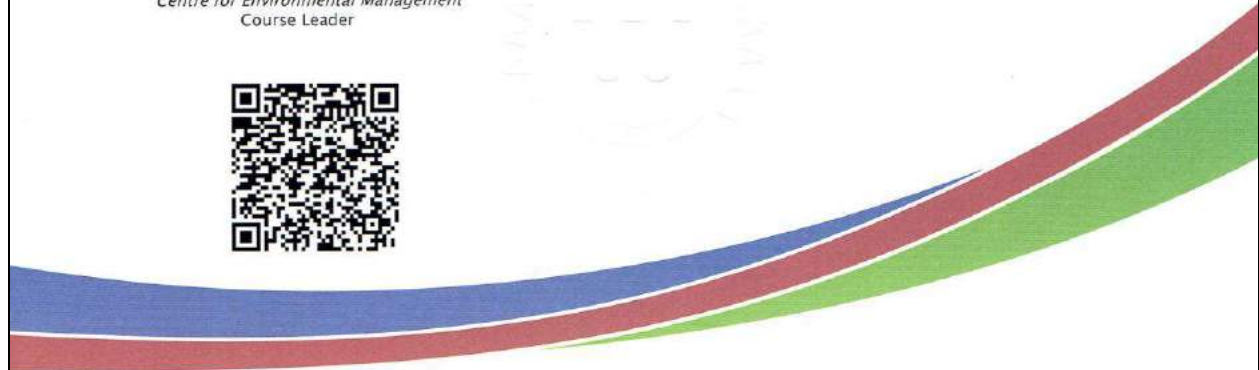
CEM-03.1/0037/2014

12-16 May 2014

Proposed NQF Level: 6

Prof. JG Nel
Executive Manager:
Centre for Environmental Management
Course Leader

Prof. JJ Pienaar
Dean Faculty of Natural Science





NORTH-WEST UNIVERSITY[®]
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT



Centre for Environmental Management

This is to certify that

DC LABUSCHAGNE
9009135031088

successfully completed the short course on:

Environmental Law for Environmental Managers

CEM-02.1/0071/2014

26-31 May 2014

Proposed NQF Level: 7

Prof. JG Nel
*Executive Manager:
Centre for Environmental Management
Course Leader*

Prof. JJ Pienaar
Dean Faculty of Natural Science





NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT



CEM

SAATCA

LA Course ISO 14001 (P14)

Centre for Environmental Management

This is to certify that

DC LABUSCHAGNE
9009135031088

successfully completed the short course on:

Environmental Management System ISO 14001 Audit: A Lead Auditor Course Based on ISO 19011 and ISO 17021

CEM-04.1.1/0017/2014

3-7 November 2014

Proposed NQF Level: 7

Prof. JG Nel
*Executive Manager:
Centre for Environmental Management
Course Leader*

Prof. JJ Pienaar
Dean Faculty of Natural Science





NORTH-WEST UNIVERSITY[®]
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

MASTER OF SCIENCE

in

ENVIRONMENTAL SCIENCES

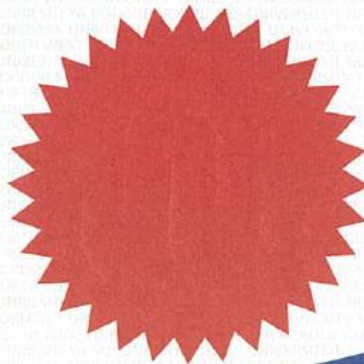
awarded to

THIBELLO PERSEVERANCE SEHAOLE

after complying with all the requirements

Dr T Eloff
Vice-Chancellor

14 September 2012



Prof NT Mosia
Registrar

University number: 20348819
Serial number: 138916





NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

HONNEURS BACCALAUREUS SCIENTIAE

in

OMGEWINGSWETENSKAPPE

toegeken aan

PERSEVERANCE THIBELLO SEHAOLE

nadat aan al die vereistes voldoen is

Visekanselier

2 Maart 2010



Registrateur

Universiteitsnommer: 20348819
Reeksnommer: 56763



NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT

BACHELOR OF SCIENCE

in

ENVIRONMENTAL AND BIOLOGICAL SCIENCES

awarded to

PERSEVERANCE THIBELLO SEHAOLE

after complying with all the requirements

Vice-chancellor

9 September 2009



Registrar

University number: 20348819
Serial number: 103076

CURRICULUM VITAE

MS. PERCY SEHAOLE



PERSONAL DETAILS:

Name: Percy Sehaole

Date of Birth: 11 Feb 1988

Nationality: South African

Profession: Environmental
Management

POSITION WITH MILNEX:

Junior Environmental Assessment
Practitioner (EAP)

ACADEMIC QUALIFICATIONS:

B.Sc Microbiology & Biochemistry

Hons.Env.Science.

M.Sc. Env. Science &

M.Sc. Env. Management

REGISTRATIONS:

IAIA: Registration number 5004
SASM



Environmental Assessment Practitioner

KEY QUALIFICATIONS:

Masters Degree in Environmental Management, North West University, SA (in process)
Masters Degree in Environmental Science, North West University, SA (2012)
Honors in Environmental and Biological Science (Hons.Env.Science), North West University (NWU), SA (2010)
B. Sc in Microbiology and Biochemistry, North West University (NWU), SA (2006-2010)
Implementing Environmental Management Systems (ISO 14001) course from the CEM (Centre for Environmental Management) in 2013
Environmental Law for Environmental Managers course from the CEM (Centre for Environmental Management) in 2013

Registered at:

International Association for Impact Assessment (IAIA)
SASM

PROJECT EXPERIENCE:

Percy Sehaole has environmental Environmental Impact Assessment (EIA), Environmental Auditing and Microbiology. Some of the projects are summarised below, which demonstrates her specialist competence:

Scoping Report Jacobus Smit- Prospecting Right Application for Diamond near Windsorton on Erf 2001, Barkly West RD, Northern Cape Province

Basic Assessment Report: Oceanside Trading 139 CC- Mining Permit Application for the removal of Diamonds Alluvial near Schweizer-Reneke on the Remaining Extent of the farm Grootpoort No. 83, RD HO, North West Province

Scoping Report: G.C. Knoetze- Prospecting Right Application for Diamond near Wolmaransstad on the farms Boschrand 158 and Uitkyk 156, Registration Division HO, North West Province

Scoping Report: Prospecting Right Application for Diamond Alluvials near Christiana on the Remaining Portion of Portion 4 (Northfield) of the Farm Catharina 44, Registration Division HN, North West Province

Final EIR & EMP: Prospecting Right Application for Diamond Alluvials near Ottosdal on the farm Kareelaagte 330 Registration Division IO, North West Province

Final EIR & EMP: Prospecting of Diamonds Alluvial near Ottosdal on the Remaining Extent and Portion 2 of the farm Murray 377, Registration Division IO and The Remaining Extent of Portion 2, 5, 13 and Portion 20, 21, 23, 25, 26, 32, 33, 34, 36 and 41 of the farm Lakenvallei 310 Registration Division IP, North West Province

Final EIR & EMP: Prospecting Right Application for Diamond Alluvials and Diamonds General on Remaining Extent of Portion 1 of the farm Springbok 191 and Portion 5 of the farm Krompan 85, Registration Division HO, North West Province

Final EIR & EMP: Prospecting Right Application for Diamond Alluvials and Diamonds General near Schweizer-Reneke on the farm Grootpoort 83, Registration Division HO, North West Province

Basic Assessment Report: The Proposed Mining Permit of Diamond Alluvial near Sannieshof on a certain portion of the portion 9 of the farm Tweebosch No. 318, RD IO, North West Province

Basic Assessment Report: The Proposed Mining Permit of Diamond Alluvial near Sannieshof on a certain portion on portion 34 of farm Klipdrift No. 335, RD IO, North West Province.

CURRICULUM VITAE

MR. DANIE LABUSCHAGNE



Environmental Assessment Practitioner

KEY QUALIFICATIONS:

Masters Degree in Environmental Management and Geography, North West University, SA (2014)
Honors in Environmental Management (Hons.Env.Man) (Cum Laude), North West University (NWU), SA (2012)
B. Sc in Geology and Geography, North West University (NWU), SA (2009–2011)
Implementing Environmental Management Systems (ISO 14001) course from the CEM (Centre for Environmental Management) in 2014
Environmental Law for Environmental Managers course from the CEM (Centre for Environmental Management) in 2014
Environmental Management Systems ISO 14001 Audit: A Lead Auditor Course based on ISO 19011 and ISO 17021(SAATCA Registered) course at the CEM (Centre for Environmental Management) in November 2014

Registered at:
International Association for Impact Assessment (IAIA)

PROJECT EXPERIENCE:

Involvement with environmental management projects and EIA applications:

Danie Labuschagne has environmental consulting experience in Environmental Impact Assessment and (EIA) and Environmental Management Programmes (EMPr). Some of the projects are summarised below, which demonstrates her specialist competence:

- Scoping Report Jan Coetzee- Alluvial Diamond Mine- near Ottosdal, Registration Division IO, North West Province
- Scoping Report Van Zyl Broers Oersonskraal CC- Alluvial Diamond Mine- near Schweizer-Reneke, Registration Division HO, North West Province
- Scoping Report Van Zyl Broers Oersonskraal CC- Stone Aggregate Mine- near Lichtenburg, Registration Division IP, North West Province
- EMP- Vaalharts en Vrede Boerdery CC- Sand Mine- near Christiana, Registration Division HN, North West Province
- EMP- Sanmar Sands CC-Sand Mine- near Standerton, Registration Division HS, Mpumalanga Province
- EMP- Sanmar Sands CC-Sand Mine- near Brits, Registration Division JQ, North-West Province
- EMP- PGL Boerdery (Pty) Ltd- Alluvial Diamond Mine- near Schweizer-Reneke, Registration Division HO, North West Province
- EMP- PA Ehlers- Alluvial Diamond Mine- near Schweizer-Reneke, Registration Division HO, North West Province
- EMP- NVW Boerdery (Pty) Ltd- Alluvial Diamond Mine- near Schweizer-Reneke, Registration Division HO, North West Province
- EMP- Mulma Delwery CC- Alluvial Diamond Mine- near Schweizer-Reneke, Registration Division HO, North West Province
- EMP- JRM Maine- Alluvial Diamond Mine- near Lichtenburg, Registration Division JO, North West Province
- EMP- J Smit- Alluvial Diamond Mine- near Christiana, Registration Division HO, North West Province
- EMP- Glomix 109 CC- Alluvial Diamond Mine- near Wolmaranstad, Registration Division HO, North West Province
- WULA-General Authorization- Sanmar Sands CC-Sand Mine- near Standerton, Registration Division HS, Mpumalanga Province
- WULA-General Authorization - Sanmar Sands CC-Sand Mine- near Brits, Registration Division JQ, North-West Province
- WULA-General Authorization Renewal- Sanmar Sands CC-Sand Mine- near Thabazimbi, Registration Division LQ, Limpopo Province

PERSONAL DETAILS:

Name: Danie Labuschagne
Date of Birth: 13 Sept. 1990
Nationality: South African
Profession: Environmental Manager

POSITION WITH MILNEX:

Junior Environmental Assessment Practitioner (EAP)

ACADEMIC QUALIFICATIONS:

B.Sc Geology and Geography
Hons.(Cum Laude)Env.Man.
M.Sc. Env.Man.

REGISTRATIONS:
IAIA.

Table: List of consultation bodies and IAPs as required by the EIA Regulations (GNR 982)

Organization	Contact person	Postal address		E-mail address	Contact details
Land Owner - Regulation 54(2)(b)(i)					
Mosesberg RE/3/6	Distinctive Choice 1153 CC	P O BOX 110075 HADISON PARK 8306			Barend Vermeulen 078 624 2601 082 417 7782
	Paalsewerf Boerdery Bk. J.F. van Staden C.J. van Staden	Posbus 258 Douglas 8730	Posbus 48 Douglas 8730	koos@douglas.co.za cjvanstaden1@gmail.com	082 326 7657 081 013 3566
Mosesberg 14/6, 15/6, 16/6, 17/6 & 18/6	Regal Royal Development (Pty) Ltd Mr. A Sachs			aviv@sachs.co.za	21-4342280 (t) +27-21-4399591 (f)
Mosesberg RE/19/6 & 20/6	William Kenneth Shaw	P.O. BOX 486 KIMBERLEY 8300			
Mosesberg 21/6	Duncan Clifford Shaw	POSBUS 1100 KIMBERLEY 8300		vilma.shawwk@gmail.com	
The Municipality in which jurisdiction the development is located					
Dikgatlong Local Municipality	Municipal Manager: Kgotso Moeketsi	Private Bag X5 Barkly West 8375			053 531 6500 (t) 053 531 0624 (f)
Municipal councilor of the ward in which the site is located					
Dikgatlong Local Municipality	Ward 6 Councillor	Private Bag X5 Barkly West 8375			053 531 6500 (t) 053 531 0624 (f)
Organs of state having jurisdiction					
Northern Cape Department of Environmental Affairs and	Mrs. Doreen Werth	Private Bag X6102 Kimberley		dwerth@ncpg.gov.za	053 807 7430 (t) 053 807 7328 (f)

Nature Conservation (DEANC)		8300		
DMR Department of Mineral Resources, Northern Cape. (DMR)	Sunday Mabaso	Private Bag X 6093 Kimberley 8300	sunday.mabaso@dmr.gov.za	053 807 1700 (t) 053 830 0827 (f)
Northern Cape Department of Water & Sanitation (DWS)	Mr. Abe Abrahams	Private Bag X6101 Kimberley 8300	AbrahamsA@dwa.gov.za CC: Abe@dwa.gov.za CC: MakungoE@dws.gov.za	053 830 8803 (t) 053 831 4534 (f) 082 883 6741 (Cell)
NC Department of Agriculture, Forestry and Fisheries (DAFF)	Mr. Dimakatso Viljoen Mothibi	Private Bag X5018 Kimberley 8300	cfortune@agri.ncape.gov.za	053 838 9102 (t) 053 831 3635 (f)
Department of Roads and Public Works (DRPW)	HOD: Ms. Ruth Palm Mr Tshiamo Pitso	P.O. Box 3132 Kimberley 8300	klawrence@trpw.ncape.gov.za tpitso@vodamail.co.za	053 839 224 (t) 053 839 2291 (f) 083 255 8816 (c)
Northern Cape Department of Rural Development & Land Reform, Land Claims Commissioner: Regional Offices	Chief Director: Ms Mangalane Du Toit Ryan Oliver	Via email	Mangalane.DuToit@drdlr.gov.za ryan.oliver@drdlr.gov.za	053 807 5700 (t)
Other				
Frances Baard District Municipality	Municipal Manager: Ms Z M Bogatsu	Private Bag X6088 Kimberley, 8300		053 838 0911 (t) 053 861 1538 (f)
WESSA	Mr. John Wesson	P.O. Box 916 Hartbeespoort 0216		
South African Heritage Resources Agency (SAHRA)	Philip Hine	P.O. Box 4637 Cape Town 8000	phine@sahra.org.za	021 462 4502 (t) 021 462 4509 (f)
SANRAL Corporate Office	To whom it may concern	P.O. Box 415 Pretoria 0001		
Surrounding land owners				
Bergplaats RE/100 & Klipfontein RE/99	De Beers Consolidated Mines (Pty) Ltd	P O BOX 616 KIMBERLEY 8300		

Farm 3/5	A & B Moller Boerdery CC	P O BOX 238 DELPORTSHOOP 8377		
Farm 4/5	Ronald Cawood	PO BOX 1284 KIMBERLEY 8300		
Farm 6/5	William Kenneth Shaw	PO BOX 486 KIMBERLEY 8300		
Farm RE/293	Department of Rural Development and Land Reform Northern Cape Manager: Cynthia Nkoane On behave of National Government of the Republic of South Africa	Western Cape Provincial Shared Service Centre Private Bag X5007 KIMBERLEY 8300	Cynthia.Nkoane@drdlr.gov.za	
Farm 1/293 & Farm 1/294	Dikgatlong Local Municipality	Private Bag X5 Barkly West 8375		
Farm 2/293	Paalsewerf Boerdery CC	P O BOX 258 DOUGLAS 8730		
Valkfontein 1/7	LPHN Boerdery Pty Ltd	POSBUS 113 DELPORTSHOOP 8377		
Schmidtsdrift RE/248	Schmidtsdrift Communal Property Association	P.O. Box 2166 Kimberley 8300	tshitemp@gmail.com	

List of REGISTERED LETTERS Lys van GEREGISTREERDE BRIEWE

(with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volg en spoor

Name and address of sender: MILNEX 189 cc
 Naam en adres van afsender: P.O. Box 1086, Schweizer - Reneke
2780

Enquiries/Navrae
 Sharecall
 number/nummer
0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreeseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volg-en-Spoor-Klientafskrif
✓ 1	Dikgatlong Local Mun. Mun. Manager Private bag x5, Barkley West, 8375					INSURED PARCEL ShareCall 0860 111 502 www.sppo.co.za PA 409 895 727 ZA CUSTOMER COPY 301012
✓ 2	Dikgatlong Local Mun. Ward Coun- Private bag x5, Barkley West, 8375					INSURED PARCEL ShareCall 0860 111 502 www.sppo.co.za PA 409 895 713 ZA CUSTOMER COPY 301012
✓ 3	NC:DENC, Private bag x 6102 Kimberley, 8300					INTERNATIONAL REGISTERED LETTER RJ 020 699 873 ZA A BOOK COPY
4	SANRAL, P.O. Box 415, Pretoria, 0001					INTERNATIONAL REGISTERED LETTER RJ 020 699 887 ZA A BOOK COPY
✓ 5	NC:DAFF, Private bag x 5018 Kimberley, 8300					INTERNATIONAL REGISTERED LETTER RJ 020 699 895 ZA A BOOK COPY
6	Land owner 1, P.O. Box 110075, Hadison Park, 8306					INTERNATIONAL REGISTERED LETTER RJ 020 699 900 ZA A BOOK COPY
7	Land owner 3, P.O. Box 486, Kimberley, 8300					INTERNATIONAL REGISTERED LETTER RJ 020 699 913 ZA A BOOK COPY
8	DRPW, P.O. Box 3132, Kimberley, 8300					INTERNATIONAL REGISTERED LETTER RJ 020 699 927 ZA A BOOK COPY
9	WESSA, P.O. Box 916, Hartbeespoort, 0216					INTERNATIONAL REGISTERED LETTER RJ 020 699 935 ZA A BOOK COPY
✓ 10	Frances Baard District, Private bag x6088, Kimberley, 8300					INTERNATIONAL REGISTERED LETTER RJ 020 699 944 ZA A BOOK COPY

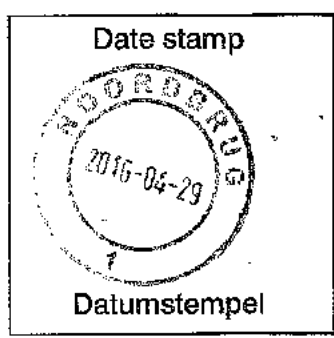
Number of letters posted
 Getal briewe gepos 10 Total
 Totaal R R R R

Signature of client
 Handtekening van kliënt..... Ehade

Signature of accepting officer
 Handtekening van aanneembeampie..... Job

The value of the contents of these letters is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100.00. No compensation is payable without documentary proof.
 Optional insurance of up to R200.00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie briewe is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100.00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering van tot R2 000.00 is beskikbaar en is slegs binnelandse geregistreerde briewe van toepassing.



List of REGISTERED LETTERS
 Lys van GEREgistreerde BRIEWE
 (with an insurance option/met 'n versekeringsopsie)



Post Office

Full tracking and tracing/Volledige volgren spoor

Name and address of sender: MILNEX 189 CC
 Naam en adres van afsender: P.O. Box 1086, Schweizer-Reneke 2780

Enquiries Navrae
 Sharecall
 number/nommer
0860 111 502
 www.postoffice.co.za

No	Name and address of addressee Naam en adres van geadreseerde	Insured amount Versekerde bedrag	Insurance fee Versekeringsgeld	Postage Posgeld	Service fee Diensgeld	Affix Track and Trace customer copy Plak Volgren Spoor Klantafskrif INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 699 961 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 699 958 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 699 975 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 699 989 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 699 992 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 700 007 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 700 015 ZA CUSTOMER COPY CON100063 INTERNATIONAL REGISTERED LETTER ShareCall 0860 111 502 www.sapo.co.za RJ 020 700 024 ZA CUSTOMER COPY CON100063
1	Land owner 4, Posbus 1100, Kimberley, 8300					
2	Surr. land owner 1, P.O. Box 616, Kimberley, 8300					
3	Surr. land owner 2, P.O. Box 238, Delfortshoop, 8377					
4	Surr. land owner 3, P.O. Box 1284, Kimberley, 8300					
5	Surr. land owner 5, Private Bag X5007, Kimberley, 8300					
6	Surr. land owner 6, P.O. Box 258, Douglas, 8730					
7	Surr. land owner 7, Posbus 113, Delfortshoop, 8377					
8	Surr. land owner 8, P.O. Box 2166, Kimberley, 8300					
9						
10						

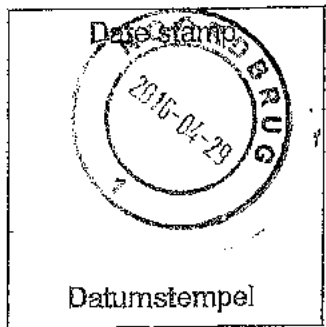
Number of letters posted 8 Total
 Getal briewe gepos Totaal R R R R

Signature of client
 Handtekening van klient

Signature of accepting officer
 Handtekening van aanneembampste

The value of the contents of these letters is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100.00. No compensation is payable without documentary proof. Optional insurance of up to R200.00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie briewe is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100.00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering van tot R2 000.00 is beskikbaar en is slegs binne landse geregistreerde briewe van toepassing.



GEREGISTEREERDE BRIEF

(with an Insurance option/met 'n versekeringsopsie)



Full tracking and tracing/Volledige volg en spoor

Addressed to/Geadresseer aan

MILNER 189 CE
18/15/16
OB

Postcode
Poskode

The value of the contents of this letter is as indicated and compensation is not payable for a letter received unconditionally. Compensation is limited to R100.00. No compensation is payable without documentary proof. Optional insurance up to R2 000.00 is available and applies to domestic registered letters only.

Die waarde van die inhoud van hierdie brief is soos aangedui en vergoeding sal nie betaal word vir 'n brief wat sonder voorbehoud ontvang word nie. Vergoeding is beperk tot R100.00. Geen vergoeding is sonder dokumentêre bewys betaalbaar nie. Opsionele versekering tot R2 000.00 is beskikbaar en is slegs op binnelandse geregisterde briewe van toepassing.

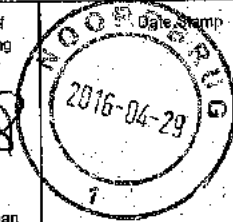
Postage paid R _____ c
Service fee / Diensgeld R _____ c
Insurance / Versekering R _____ c
Total / Totaal R _____ c

Insured value of contents

Versekerde waarde van inhoud R _____ c

Enquiries/Navrae
Toll-free number
Telvry nommer
0800 111 502

Initial of
accepting
officer



Paraaf van
aaneem-
beampte

Datumstempel

Legendre Ultra Postnet 071 483 7821 101285



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093 Kimberley, 8300; Tel: 0538071700; Fax: 0538328593
65 Phakamile Mabija, 1st Floor Permanent Building, Kimberley 8300

Enquiries: Vincent Muila Ref No: NC 30/5/1/2/2/ (10103) MR
E-mail address: vincent.muila@dmr.gov.za
Mine Environmental Management

BY REGISTERED MAIL

The Directors

FILYAT 64 CC

P.O.Box 309

Schweizer-Reneke

2780

Dear Sir / Madam

Fax: 053 963 2009

ACKNOWLEDGEMENT OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION LODGED IN TERMS OF SECTION 24 OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) READ WITH REGULATION 19 OF THE ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 FOR A MINING RIGHT AND RELATED INFRASTRUCTURAL ACTIVITIES ON THE FARM MOSESBERG 6 PORTION 20, REMAINDER OF PORTION 3, 17, 15, 14, 18, 16, 21, REMAINDER OF PORTION 19, SITUATED IN THE MAGISTERIAL DISTRICT OF HERBERT NORTHERN CAPE REGION.

1. I refer to the abovementioned matter and confirm that your application for an Environmental Authorisation herein referred to as "EA" lodged on **21st April 2016** is hereby acknowledged.
2. Acknowledgement of your application does not grant you permission to commence with mining activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1) (a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment.

3. NB: Regulation 45 of 2014 EIA Regulations stipulates that “an application in terms of these Regulations lapses and a competent authority will deem the application as having lapsed, if the applicant fails to meet any of the time-frames prescribed in terms of these Regulations, unless extension has been granted in terms of regulation 3(7).”

Hope that this letter will receive your utmost attention.

11 

REGIONAL MANAGER: MINERAL REGULATION

NORTERN CAPE REGION

DATE 10/05/2016

Please quote this office file number for any correspondence as reference



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTHERN CAPE

4-8 Old Main Road, 4th floor Hyesco Arcade, Kimberley 8300

P.O. Box 2458, Kimberley, 8300

Tel: (053) 807 5700 Fax: (053) 831 6501

Reference: Ryan Oliver

Date: 05/05/2016

APPLICANT: Milnex 189CC

RE: LAND CLAIMS ENQUIRY[S]

PROPERTY[S] DESCRIPTION

- 1 Portion 7 of the Farm Slypklip South Estate No. 36, Kimberley
Registration Division, Province Northern Cape.**

This communiqué serves to advise your company that according to our database there are no restitution claims lodged against the above mentioned properties description.

We are receiving new restitution claims as of 2014 onwards.

It should however be borne in mind that our database is continuously being updated, therefore this information may be subject to change and you will be informed accordingly.

Yours in service delivery

Ms. M. Du Toit

Chief Director: Land Restitution Support-Northern Cape

Date: 05/05/2016



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P.O. Box 2458, Kimberley, 8300

Tel: (053) 807 5700 Fax: (053) 831 6501

Reference: Ryan Oliver

Date: 05/05/2016

APPLICANT: Milnex 189CC

RE: LAND CLAIMS ENQUIRY[S]

PROPERTY[S] DESCRIPTION

- 1 Portion 20 (portion of portion 19) of the Farm Mososberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 2 Remaining extent of portion 3 (Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 3 Portion 17 (portion of portion 3 Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 4 Portion 15 (portion of portion 3 Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 5 Portion 14 (portion of portion 3 Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 6 Portion 18 (portion of portion 3 Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 7 Portion 16 (portion of portion 3 Muirton) of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 8 Portion 21 (portion of portion 19) of the Farm Mososberg No. 6, Barkly West Registration Division, Province Northern Cape.
- 9 Remaining extent of portion 19 of the Farm Mosesberg No. 6, Barkly West Registration Division, Province Northern Cape.

This communiqué serves to advise your company that according to our database there are no restitution claims lodged against the above mentioned properties description.

We are receiving new restitution claims as of 2014 onwards.

It should however be borne in mind that our database is continuously being updated, therefore this information may be subject to change and you will be informed accordingly.

Yours in service delivery



Ms. M. Du Toit
Chief Director: Land Restitution Support-Northern Cape
Date: 05/05/2016



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 1722 Fax: 053 832 5671 Email: tumelo.sedupane@dmr.gov.za, Ref: NC30/5/1/2/2/10103 MR
From: **Mineral Regulation** Enquiries: **TK Sedupane**

PER REGISTERED MAIL

The Managing Members

Filyat 64 Cc

PO Box 960

Schweizer-Reneke

2780

Fax no: (053) 963 2009

E-mail: japie@japievzylprok.co.za

Dear: Sir/Madam

APPLICATION FOR MINING RIGHT IN TERMS OF SECTION 22 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 AS AMENDED BY SECTION 18 OF ACT 49 OF 2008 AND ENVIRONMENTAL AUTHORIZATION IN TERMS OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, AS AMENDED: REMAINING PORTION OF PORTION 3 (PORTION OF PORTION 3 MUIRTON), PORTIONS 14, 15, 16, 17 AND 18 (PORTION OF PORTION MUIRTON), THE REMAINING EXTENT OF PORTION 19, PORTION 20 (PORTION OF PORTION 19) AND PORTION 21 OF THE FARM MOSESBERG NO.6: WITHIN THE ADMINISTRATIVE DISTRICT OF HERBERT.

1. This is to inform you that your application for a mining right in terms of section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) ("Act") as amended and the Environmental Authorization in line with NEMA Regulations for **Diamonds (Alluvial, General and Kimberlite)** has been accepted.
2. In terms of section 18 (e) of the Act, you are directed to comply with the following instructions:

- a. Implement the processes prescribed by the National Environment Management Act, as amended and submit the Scoping Report within 44 days from the date of acceptance of the Environmental Authorization.
 - b. Submit the relevant Environmental Impact and Environmental Management Programme reports as required in terms of the National Environment Management Act, (as amended) within 106 days from the date of acceptance of the scoping report, as prescribed.
 - c. Notify and consult with the landowners, lawful occupiers and any other interested and affected parties as required in terms of Regulation 41(2) read with Section 24J of National Environment Management Act, as amended.
 - d. Lodge a notice of intent to apply for a Water Use Licence in terms of Water Use Licence Act with the Department of Water and Sanitation with immediate effect and confirm that with the Regional Manager.
3. Be advised that the Minister may having regard to the type of mineral concerned and the extent of the proposed prospecting project, direct the applicant to give effect to the objects of the section 2(d) of the Act. In order to comply with section 2(d) **you are thus directed** to submit the following documents on or before 05th August 2016.
- a. Duly signed shareholders agreements with your empowerment partner in which provision shall be made for entrepreneurs, local community and employees,
 - b. Share certificates,
 - c. Details relating to the equity by the BEE shareholders,
 - d. Any other agreement relating to the BEE shareholding including the voting pool agreement where applicable,
 - e. Articles and memorandum of association of the company,
4. Further note that the acceptance of your application does not grant you the right to commence with mining activities. It only signify that your application will be

processed, evaluated and the Minister or his delegate will make a decision within 300 days from the acceptance of your application.

Yours faithfully

AK
AK
REGIONAL MANAGER:

MINERAL REGULATION: NORTHERN CAPE

DATE: 12/05/2016

NOTICE OF APPLICATION FOR A MINING RIGHT AND SUBSEQUENT ENVIRONMENTAL IMPACT ASSESSMENT

Notice is given in terms of Section 22 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002) and Regulations 3, 10 & 51 of the Regulations published in Government Notice GN R527, & Notice is given, in terms of the EIA regulations published in Government Notice No. R982 under Section 39-44 of the National Environmental Management Act (Act No. 107 of 1998), of the intent to carry out an Environmental Impact Assessment (i.t.o. Listing Notice 2 – G.N. R984) of the intent to carry out the above mentioned activity.

- ❖ **Project title:** Mining Right Application of **Filyat 64 CC** for the mining of Diamonds Alluvial & Diamonds General near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province.
- ❖ **Project description:** Diamonds Alluvial & Diamonds General Mining Right, associated infrastructure and earthworks on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape .The property is situated in Dikgatlong Local Municipality area of jurisdiction near the Vaal River approximately 50km South West from Barkly West on the R370.
- ❖ **Size of site:** The site will be 4142.9495ha hectares in extent.
- ❖ **Proponent:** **Filyat 64 CC**
- ❖ **DMR Ref:** **NC30/5/1/2/2/10103MR**
- ❖ **Co-ordinates:** 28°31'11.24"S, 24° 7'58.77"E; 28°32'34.70"S, 24°10'31.87"E; 28°33'29.98"S, 24° 5'12.01"E; 28°35'54.77"S, 24° 7'1.31"E
- ❖ **Consultant:** Danie Labuschagne
Milnex 189 CC
Tel: (018) 011 1925
Fax: 087 231 7021
E-mail: danie@milnex-sa.co.za
Postal Address: PO Box 1086, Schweizer-Reneke, 2780

The **Environmental Impact Assessment** application will be submitted to the Department of Mineral Resources. In order to ensure that you are identified as an interested and/or affected party please submit your name, contact information and interest in the matter, in writing, to the contact person given above **within 30 days of this advertisement.**

NOTICE OF APPLICATION FOR A MINING RIGHT AND SUBSEQUENT ENVIRONMENTAL IMPACT ASSESSMENT

Notice is given in terms of Section 22 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002) and Regulations 3, 10 & 51 of the Regulations published in Government Notice GN R527, & Notice is given, in terms of the EIA regulations published in Government Notice No. R982 under Section 39-44 of the National Environmental Management Act (Act No. 107 of 1998), of the intent to carry out an Environmental Impact Assessment (i.t.o. Listing Notice 2 – G.N. R984) of the intent to carry out the above mentioned activity.

- ❖ Project title: Mining Right Application of **Filyat 64 CC** for the mining of Diamonds Alluvial & Diamonds General near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province.
- ❖ Project description: Diamonds Alluvial & Diamonds General Mining Right, associated infrastructure and earthworks on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3

Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape .The property is situated in Dikgatlong Local Municipality area of jurisdiction near the Vaal River approximately 50km South West from Barkly West on the R370.

- ❖ Size of site: The site will be 4142.9495 hectares in extent.
- ❖ Proponent: **Filyat 64 CC**
- ❖ DMR Ref: **NC30/5/1/2/2/10103MR**
- ❖ Co-ordinates: 28°31'11.24"S, 24° 7'58.77"E;
28°32'34.70"S, 24°10'31.87"E;
28°33'29.98"S, 24° 5'12.01"E;
28°35'54.77"S, 24° 7'1.31"E

- ❖ Consultant: Danie Labuschagne
Milnex 189 CC
Tel: (018) 011 1925
Fax:087 231 7021
E-mail: danie@milnex-sa.co.za
Postal Address: PO Box 1086, Schweizer-Reneke, 2780

The **Environmental Impact Assessment** application will be submitted to the Department of Mineral Resources. In order to ensure that you are identified as an interested and/or affected party please submit your name, contact information and interest in the matter, in writing, to the contact person given above **on the 20 June 2016**

MINING RIGHT APPLICATION FOR THE MINING OF DIAMONDS ALLUVIAL & DIAMONDS GENERAL NEAR BARKLY WEST ON PORTION 20 (PORTION OF PORTION 19), REMAINING EXTENT OF PORTION 3 (MUIRTON), PORTION 17 (PORTION OF PORTION 3 MUIRTON), PORTION 15 (PORTION OF PORTION 3 MUIRTON), PORTION 14 (PORTION OF PORTION 3 MUIRTON), PORTION 18 (PORTION OF PORTION 3 MUIRTON), PORTION 16 (PORTION OF PORTION 3 MUIRTON), PORTION 21 (PORTION OF PORTION 19) AND REMAINING EXTENT OF PORTION 19 OF THE FARM MOSESBERG 6, REGISTRATION DIVISION: BARKLY WEST, NORTHERN CAPE PROVINCE.


[Ref No.: NC30/5/1/2/2/10103MR]

ATTENDANCE REGISTER:

Public Meeting: Portion 21 (portion of portion 19) of the farm Mosesberg 6.
DATE: 18 May 2016 TIME: 14:00pm – 15:00pm

KINDLY PRINT YOUR NAME IN FULL AND WRITE CLEARLY.

NAME & SURNAME	ORGANISATION	ADDRESS	CONTACT DETAILS				SIGNATURE
Kenny SHAW	LAND OWNER	P.O. Box 486	Tel:	053 562 0504			<i>[Signature]</i>
Paalseweg Bdy BK. J.F. VAN STADEN	EENAR	Posbus 258, Douglas 8730	Fax:	053 298 2472			<i>[Signature]</i>
CLIFFORD SHAW	LAND OWNER	P.O. Box 1100 K.B.Y.	Cell:	08232267657			<i>[Signature]</i>
Paalseweg Bdy BK. C.J. VAN STADEN	EENAR	Posbus 48 Douglas 8730	Email:	koos@dooglas.co.za			<i>[Signature]</i>
Percy Schoole	MILNEX 189CC		Tel:				<i>[Signature]</i>
			Fax:				
			Cell:	0724635604			
			Email:				
			Tel:				
			Fax:				
			Cell:	0810133566			
			Email:	Cjvanstaden189@gmail.com			
			Tel:				
			Fax:				
			Cell:				
			Email:	percymilnex-sa-co-za			<i>[Signature]</i>

NAME & SURNAME	ORGANISATION	ADDRESS	CONTACT DETAILS				SIGNATURE
L. Esterhuizen	Milnex 185CC		Tel:				
			Fax:				
			Cell:				
			Email:	lizonne@milnex-sa.co.za			
			Tel:				
			Fax:				
			Cell:				
			Email:				
			Tel:				
			Fax:				
			Cell:				
			Email:				

PUBLIC MEETING

MINING RIGHT APPLICATION FOR THE MINING OF DIAMONDS ALLUVIAL & DIAMONDS GENERAL NEAR BARKLY WEST ON PORTION 20 (PORTION OF PORTION 19), REMAINING EXTENT OF PORTION 3 (MUIRTON), PORTION 17 (PORTION OF PORTION 3 MUIRTON), PORTION 15 (PORTION OF PORTION 3 MUIRTON), PORTION 14 (PORTION OF PORTION 3 MUIRTON), PORTION 18 (PORTION OF PORTION 3 MUIRTON), PORTION 16 (PORTION OF PORTION 3 MUIRTON), PORTION 21 (PORTION OF PORTION 19) AND REMAINING EXTENT OF PORTION 19 OF THE FARM MOSESBERG 6, REGISTRATION DIVISION: BARKLY WEST, NORTHERN CAPE PROVINCE.

DMR Reference No.: NC30/5/1/2/2/10103MR

Tel: 053 963 1081 Fax: 053 963 1081

PO Box 1086, 4 Bothastreet, Schweizer Reneke 2780

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Purpose of the meeting

- To **inform** the general public regarding the proposed Environmental Impact Assessment.
- To **convey** information and the current status regarding the Environmental Impact Assessment
- To **explain** the legal procedures regarding the official evaluation of the Environmental Impact Assessment.
- To **allow** the general public to raise concerns and/or support regarding the Environmental Impact Assessment.

Purpose of Public Participation

- Public participation is a process leading to a joint effort by:
 - stakeholders
 - technical specialists
 - the authorities
 - the proponent
- who work together to **produce better decisions** than if they had acted independently.



EIA Role Players

▶ The Applicant:

- Filyat 64 CC

▶ Independent Environmental Consultant:

- Milnex 189 CC

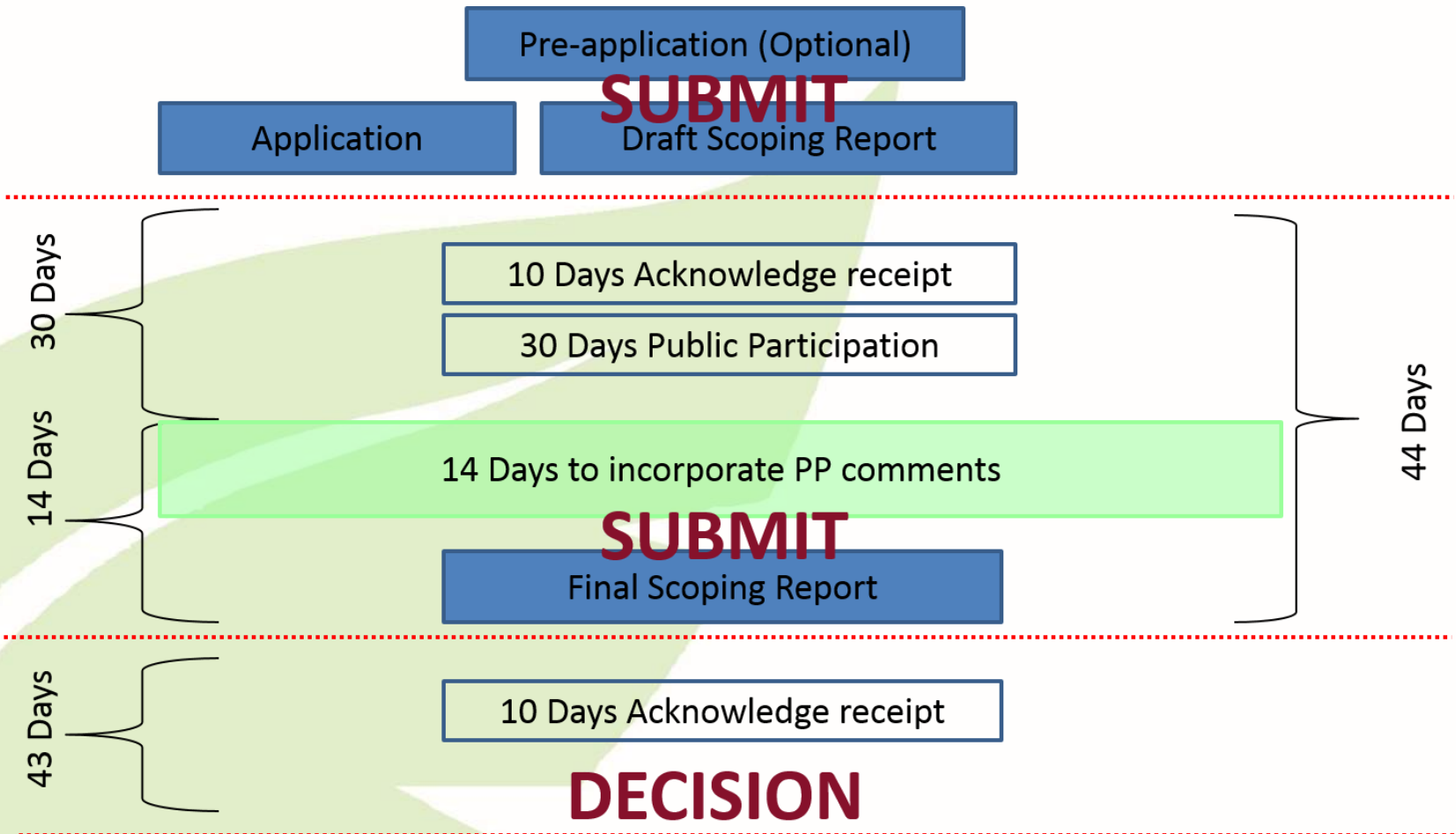
▶ Relevant Authority:

- Department of Mineral Resources (Northern Cape)

▶ Interested and Affected Parties (I&APs):

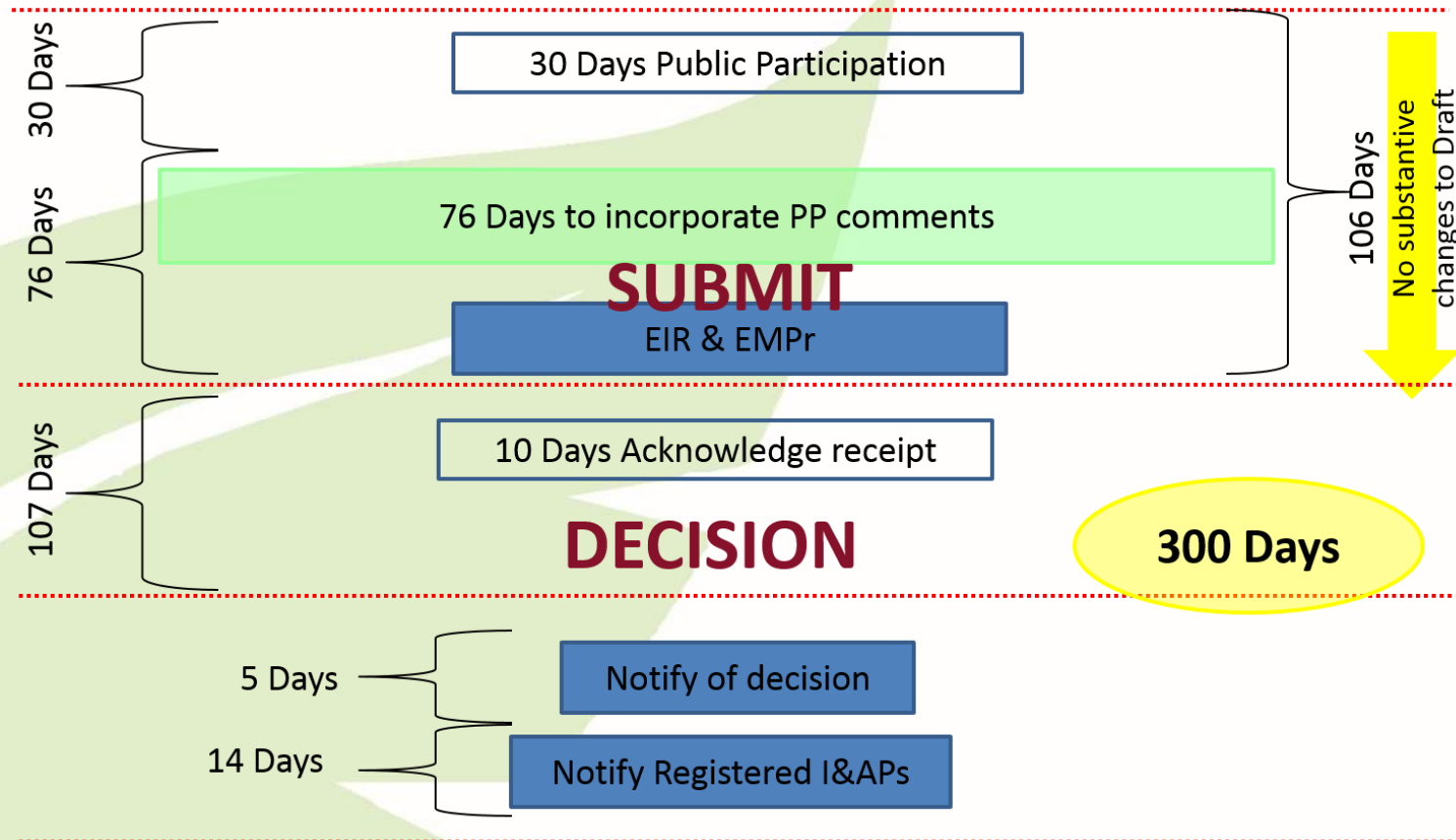
- Dikgatlong Local Municipality
- Frances Baard District Municipality

The Environmental Impact Assessment towards an Environmental Authorisation



The Environmental Impact Assessment towards an Environmental Authorisation

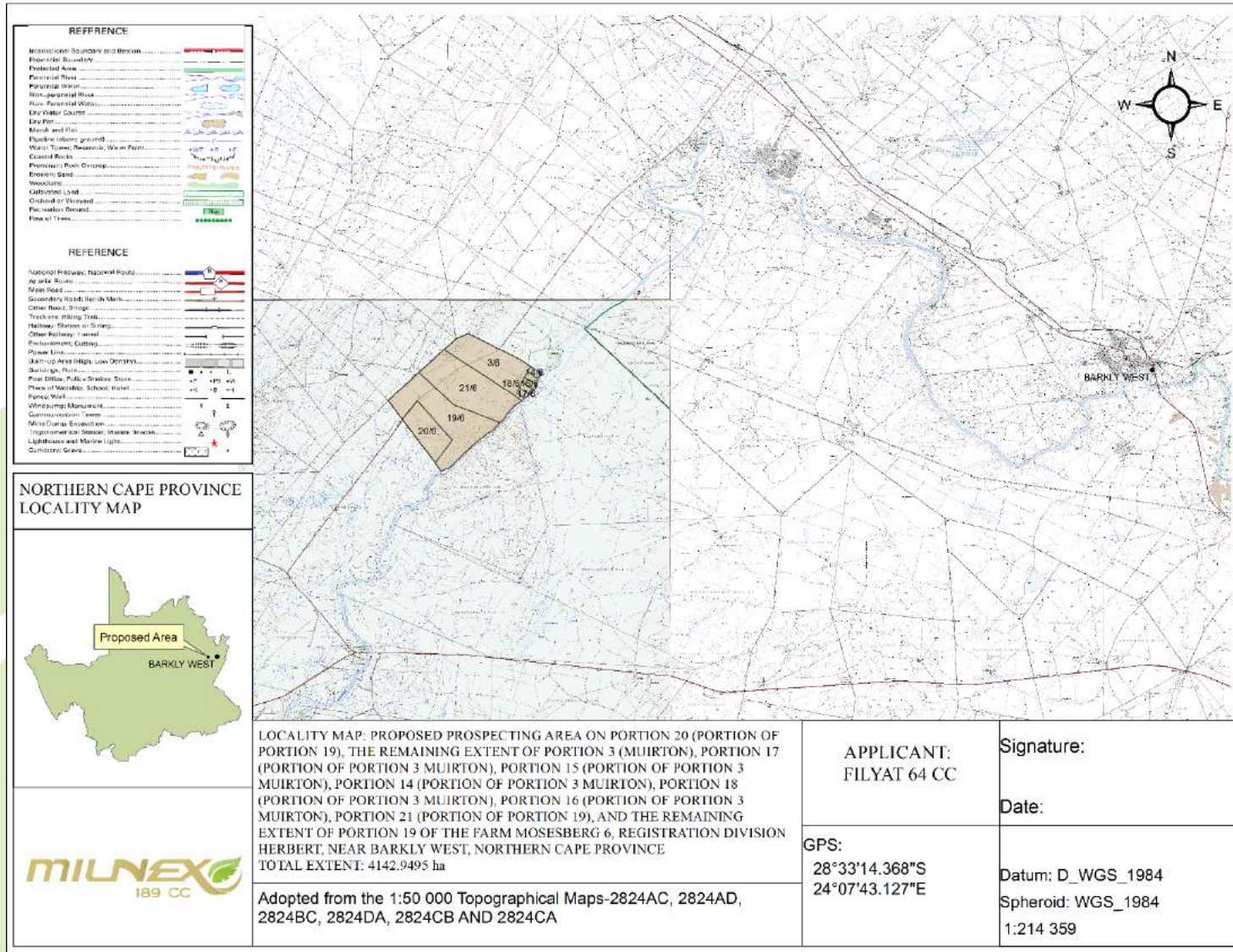
S&EIR Process



Project & Site Description

Farm Name:	<ol style="list-style-type: none"> 1. PORTION 20 (PORTION OF PORTION 19), 2. REMAINING EXTENT OF PORTION 3 (MUIRTON), 3. PORTION 17 (PORTION OF PORTION 3 MUIRTON) 4. PORTION 15 (PORTION OF PORTION 3 MUIRTON) 5. PORTION 14 (PORTION OF PORTION 3 MUIRTON) 6. PORTION 18 (PORTION OF PORTION 3 MUIRTON) 7. PORTION 16 (PORTION OF PORTION 3 MUIRTON) 8. PORTION 21 (PORTION OF PORTION 19) 9. REMAINING EXTENT OF PORTION 19 <p>OF THE FARM MOSESBERG 6, REGISTRATION DIVISION: BARKLY WEST, NORTHERN CAPE PROVINCE.</p>
Application area (Ha)	4142.9495ha
Magisterial district:	BARKLY WEST
Distance and direction from nearest town	The property is situated on the Vaal River approximately 50km South West from Barkly West on the R370.
21 digit Surveyor General Code for each farm portion	<ol style="list-style-type: none"> 1. C00700000000000600020 2. C00700000000000600003 3. C00700000000000600017 4. C00700000000000600015 5. C00700000000000600014 6. C00700000000000600018 7. C00700000000000600016 8. C00700000000000600021 9. C00700000000000600019

Project Location



Tel: 053 963 1081 Fax: 053 963 1081

PO Box 1086, 4 Bothastreet, Schweizer Reneke 2780

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Equipment to be used

- Excavator
- Dumper truck
- Front-end-loader
- Screen and scrubber
- Washing pan
- Generator
- Conveyor

The type of activity to be undertaken

“mine” means, when—

(a) used as a noun—

- (i) any excavation in the earth, including any portion under the sea or under other water or in any residue deposit, as well as any borehole, whether being worked or not, made for the purpose of searching for or winning a mineral;
- (ii) any other place where a mineral resource is being extracted, including the mining area and all buildings, structures, machinery, residue stockpiles, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or extraction or processing of such mineral resource; and

(b) used as a verb, in the mining of any mineral, in or under the earth, water or any residue deposit, whether by underground or open working or otherwise and includes any operation or activity incidental thereto, in, on or under the relevant mining area;

(Definition of “mine” substituted by section 1(m) of Act 49 of 2008 with effect from 7 June 2013)

(MPRDA, 2002:11)

Tel: 053 963 1081 Fax: 053 963 1081

PO Box 1086, 4 Bothastreet, Schweizer Reneke 2780

Method

- The gravel will be removed from the property by excavator/s. It will be loaded by the excavator onto a dumper truck which will transport the gravel to the gravel stockpile. From here the gravel will be moved by a front-end loader to the screen and scrubber into the washing plants and to the flow-sort plant. The gravel will be processed in the plant for later sorting of the concentrate derived from the plant in the flow-sort. All waste will either be accumulated in a dam and used for rehabilitation, by washing the waste back into the excavations. Tailings will be pumped into the tailings dam.

Water Use

Should the activity be closer than 500 meters from a watercourse or a wetland, the various departments will be notified and a Water Use License will be applied for.

The Vaal river is adjacent to 8 of the proposed portions.

Key Environmental Impacts



Tel: 053 963 1081 Fax: 053 963 1081

PO Box 1086, 4 Bothastreet, Schweizer Reneke 2780

Construction Phase

- During the construction phase minor negative impacts are foreseen. The potentially most significant impacts relate to:
 - Impacts on the fauna and flora
 - Impacts on the soil
 - Impacts associated with the geology of the site
 - Impacts on existing services infrastructure
 - Impacts on surface water and ground water
 - Temporary employment and other economic benefits
 - Impacts on heritage resources

Operational Phase

- The potential significant impacts during the operational phase include:
 - Impacts on the fauna and flora
 - Impacts on the soil
 - Impacts associated with the geology of the site
 - Impacts on surface water and ground water
 - Increase in employment and other economic benefits
 - Visual impacts
 - Generation of income to the Local Community
 - Pressure on existing services infrastructure and water sources.

Decommissioning Phase

- Typically, the significant impacts associated with the decommissioning phase are:
 - Loss of permanent employment & the creation of temporary employment
- During rehabilitation, the site will be returned to its natural state.

Details of the Environmental Assessment Practitioner (EAP)

All correspondence can be directed to the EAP:

- Contact person: Danie Labuschagne
- Postal Address: PO Box 1086, Schweizer-Reneke, 2780
- Telephone: 018 011 1925
- Fax: 087 231 7021
- Electronic Mail: danie@milnex-sa.co.za

THANK YOU

Any Questions/Comments?

Tel: 053 963 1081 Fax: 053 963 1081

PO Box 1086, 4 Bothastreet, Schweizer Reneke 2780

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Ecological Desktop Study

The proposed Diamonds Alluvial & Diamonds General Mining Right near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province.

Reference No. : NC30/5/1/2/2/10103MR

Prepared by



PO Box 1086, Schweizer-Reneke, 2780. Tel: (018) 011 1925, Fax 087 231 7021

E-mail: danie@milnex-sa.co.za

Introduction

Milnex 189 CC was contracted by Filyat 64 CC as the independent environmental consultant to undertake the Ecological Desktop Study for the Environmental Impact Assessment process for a Mining Right of Diamonds Alluvial and Diamonds General near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province. Milnex 189 CC is a specialist environmental consultancy with extensive experience in the mining industry which provides a holistic environmental management service, including environmental assessment and planning to ensure compliance with relevant environmental legislation. Milnex 189 CC benefits from the pooled resources, diverse skills and experience in the environmental and mining field held by its team that has been actively involved in undertaking environmental studies for a wide variety of mining related projects throughout South Africa. The Milnex 189 CC team has considerable experience in environmental impact assessment and environmental management, especially in the mining industry.

The EAP, Danie Labuschagne, which conducted the desktop study has experience in consulting in the environmental field. His key focuses are on environmental assessment, advice and management and ensuring compliance to legislation and guidelines, GIS and Water Use Licenses. He is currently involved in undertaking EIAs for several projects across the country. He's key qualifications include:

- Masters Degree in Environmental Management and Geography, North West University, SA.
- Honors in Environmental Management (Hons.Env.Man) (Cum Laude), North West University (NWU), SA.
- B. Sc in Geology and Geography, North West University (NWU), SA.
- Implementing Environmental Management Systems (ISO 14001) course from the CEM (Centre for Environmental Management).
- Environmental Law for Environmental Managers course from the CEM (Centre for Environmental Management).
- Environmental Management Systems ISO 14001 Audit: A Lead Auditor Course based on ISO 19011 and ISO 17021(SAATCA Registered) course at the CEM (Centre for Environmental Management).

It should just be noted that Danie Labuschagne ***is not*** a qualified Ecologist.

The Ecological habitat status of the proposed mining right area, was determined by means of a site visit and a desktop study. In this document a brief description of the ecology, as stated by Mucina and Rutherford (2006), will be given. This information will be supported with a map and site specific photographs.

Some other important Taxa found on in the area:

Small Trees: *Acacia mellifera subsp. detinens* (d), *A. tortilis subsp. heteracantha* (d), *Ficus cordata*, *Ziziphus mucronata*.

Tall Shrubs: *Tarchonanthus camphoratus* (d), *Grewia flava*.

Low Shrubs: *Aptosimum albomarginatum* (d), *Barleria rigida* (d), *Monecha incanum* (d), *Barleria rigida* (d), *Monechma incanum* (d), *Pentzia incana* (d), *Hermannia affinis*, *H. comosa*, *Ptychobium biflorum*, *Zygophyllum pubescens*.

Semiparasitic Shrubs: *Thesium lineatum*.

Herbs: *Lepidium bonariense* (d), *Amaranthus praetermissus*, *Heliotropium ciliatum*, *Indigastrum parviflorum*, *Osteospermum muricatum*, *Seddera capensis*, *Stachys hyssopoides*.

Graminoids: *Aristida meridionalis* (d), *Enneapogon cenchroides* (d), *Eragrostis lehmanniana* (d), *E. obtuse* (d), *Enneapogon desvauxii*

Mucina and Rutherford (2006:518) also states that the conservation of the Schmidtsdrift Thornveld is least threatened with a target of 16%. Only 0.2% is statutorily conserved in the Vaalbos National Park. As much as 13% is already transformed, mainly by cultivation. Very low to low erosion is associated with this type of thornveld and of alien plant taxa that deserves attention is the *Prosopis*.

Protected Areas

According to the data for the protected areas the different portions of the farm Mosesberg 6, do not fall within any protected area.

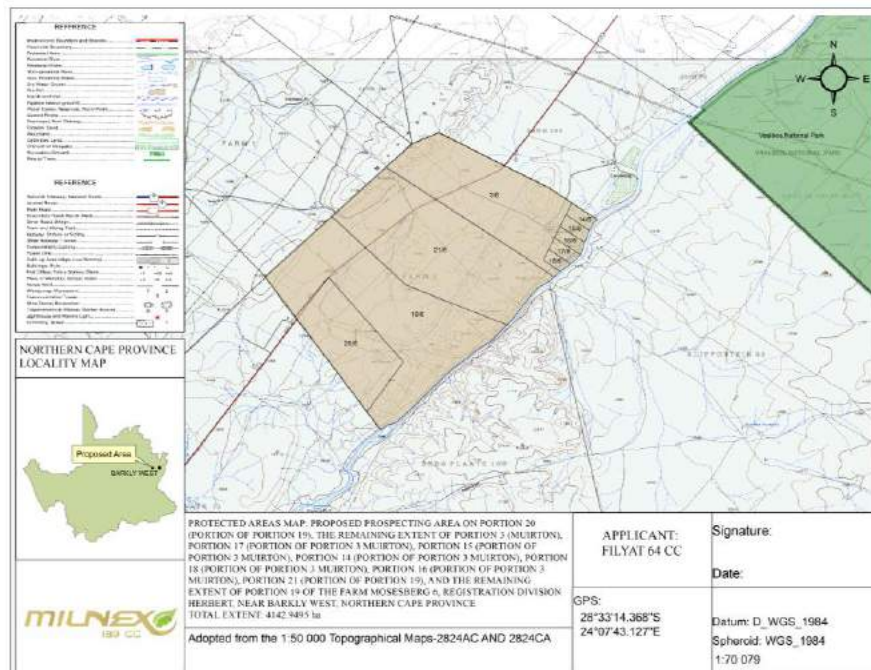


Figure 2: Protected Areas Map

Critical Biodiversity Area

According to B-GIS “Critical biodiversity areas (CBAs) are areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services”, therefore the purpose of CBA's is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape.

According to the figure 3, these are the only local municipalities which have CBA maps. Thus there is no CBD for Dikgatlong Local Municipality within whose jurisdiction the proposed mining right falls. However, according to figure 4, Dikgatlong Local Municipality does not fall within any critical endangered terrestrial ecosystems.

- local municipality CBA maps
- Namakwa District Municipality
- Hantam Local Municipality
- Kamiesberg Local Municipality
- Karoo Hoogland Local Municipality
- Khai Ma Local Municipality
- Nama Khoi Local Municipality
- Richtersveld Local Municipality

Figure 3: Municipalities which have CBD maps.

Biodiversity Summary - Dikgatlong Municipality

Size of municipality	237749ha
Areas remaining natural	214850.8ha (90.4%)
Areas where no natural habitat remains	22897.5ha (9.6%)
Protected areas	
Land-based protected areas (formal)	1 reserves covering 39.3ha (0%)
Terrestrial Ecosystems	
Biomes	Savanna 237749.2ha
Vegetation Types	7
Threatened Terrestrial Ecosystems	
<i>Critically endangered</i>	None
<i>Endangered</i>	None
<i>Vulnerable</i>	None
Freshwater Ecosystems	
Water Management Areas	1
Wetlands	607 covering 5646.4ha

Figure 4: Biodiversity Summary for Dikgatlong Local Municipality

Recommendations

- The EAP shall be notified should the occurrence of the tree, *Acacia erioloba*, or any other valuable Flora specie be identified. If the EAP finds that the mining activities will have an impact on such a tree(s)/flora specie or that the tree/flora specie needs to be removed, the needed permit will be applied for.
- Vegetation clearance, if any, should be kept to the minimum required for the operation.

The EAP herewith confirms the correctness of the information provided in this report.



Signature of the EAP: Danie Labuschagne

Date: 05/05/2016

REHABILITATION AND CLOSURE PLAN

Mining Right Application of Diamonds Alluvial & Diamonds General Near Barkly West on Portion 20 (Portion of Portion 19), Remaining Extent of Portion 3 (Muirton), Portion 17 (Portion of Portion 3 Muirton), Portion 15 (Portion of Portion 3 Muirton), Portion 14 (Portion of Portion 3 Muirton), Portion 18 (Portion of Portion 3 Muirton), Portion 16 (Portion of Portion 3 Muirton), Portion 21 (Portion of Portion 19) & Remaining Extent of Portion 19 of the Farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province.

Reference No. : **NC30/5/1/2/2/10103MR**

Prepared by



PO Box 1086, Schweizer-Reneke, 2780. Tel: (018) 011 1925, Fax 087 231 7021

E-mail: info@milnex-sa.co.za

Introduction

Milnex 189 CC was contracted by Filyat 64 CC as the independent environmental consultant to undertake the Ecological Desktop Study for the Environmental Assessment process for Mining Right Application of Diamonds Alluvial & Diamonds General Near Barkly West on Portion 20 (Portion of Portion 19), Remaining Extent of Portion 3 (Muirton), Portion 17 (Portion of Portion 3 Muirton), Portion 15 (Portion of Portion 3 Muirton), Portion 14 (Portion of Portion 3 Muirton), Portion 18 (Portion of Portion 3 Muirton), Portion 16 (Portion of Portion 3 Muirton), Portion 21 (Portion of Portion 19) & Remaining Extent of Portion 19 of the Farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province.

Rehabilitation and Closure Plan

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

Rehabilitation and Closure

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

Rehabilitation of access roads

- Whenever a prospecting right is suspended, cancelled or abandoned or if it lapses and the holder does not wish to renew the right, any access road or portions thereof, constructed by the holder and which will no longer be required by the landowner/tenant, shall be removed and/or rehabilitated to the satisfaction of the Regional Manager.
- Any gate or fence erected by the holder which is not required by the landowner / tenant, shall be removed and the situation restored to the pre prospecting situation.
- Roads shall be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation must be removed and disposed of in an approved manner prior to rehabilitation.

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

Rehabilitation of the surface trench/pitting site

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

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

(A & B) which may not be demolished in terms of any other law;

(C) which has been identified in writing by the Minister for purposes of this section; or

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

(2) The provision of subsection (1) does not apply to bona fide mining equipment which may be removed

After all the foreign matter has been removed from the sites, the excavations shall be backfilled with subsoil, compacted and levelled with previously stored topsoil. No foreign matter such as cement or other rubble shall be introduced into such backfilling.

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

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

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

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

Implement water control systems in order to prevent erosion. Seed the area (see C. (below) for recommended seed mixture).

Visual impact would be addressed by means of;

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

Fertilising of Areas to be rehabilitated

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

Seeding of Grass Seed Mixture and planting of Woody Species

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

Cenchrus ciliaris

Cynodon dactylon

Digitaria eriantha

Heteropogon contortus

Panicum maximum

Demolition of infrastructure/buildings

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

Invasive and alien control programme

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

Closure objectives and their extent

The main closure objective of for the prospecting site is to rehabilitate the whole prospecting site in such a way to ensure that the new man-made topographical landscape would blend in with the surrounding landscape, not pose a safety hazard to humans and animals, while at the same time allow for alternative land uses. Establish a self-sustaining and stable vegetation cover in order to mitigate the visual impact, to control erosion and to create some habitat for animals. The rehabilitated environment also needs to be aesthetically acceptable according to the principle of BPEO. Another main objective is to manage the surface water in such way that an acceptable water standard is achieved when a closure certificate is issued.

Filyat 64 CC will ensure that the prospecting Operation/Sites are:

- Neither a danger to public health and safety nor to animal health and safety;
- Not a source of any pollution;
- Stable (ecological and geophysical);
- Rehabilitated to the state that is suitable for the predetermined and agreed land use;
- Compatible with the surrounding biophysical environment;

- A sustainable environment;
- Aesthetically acceptable;
- Not an economic, social or environmental liability to the local community or the state now or in the future.

Filyat 64 CC will furthermore:

- ensure that the physical and chemical stability of the rehabilitated and closed prospecting site will be such that risk to the environment is not increased by naturally occurring forces to the extent that such increased risk cannot be contended with by the installed measures;
- subscribe to the optimal exploitation and utilization of South Africa's mineral resources (Diamonds);
- ensure that the prospecting site is closed efficiently and cost effectively.
- ensure that the operation is not abandoned but closed in accordance with the relevant requirements;
- ensure that the interest of all interested and affected parties will be considered;
- ensure that the all-relevant legislation regarding prospecting closure will be adhered to, and all relevant application procedures followed.

NAME OF APPLICANT: Filyat 64 CC

REFERENCE NUMBER:

MINING WORK PROGRAMME

**SUBMITTED FOR A MINING RIGHT
APPLICATION**

**AS REQUIRED IN TERMS OF SECTION 23 (a), (b) AND (c) READ
TOGETHER WITH REGULATION 11(1) (g) OF THE MINERAL AND
PETROLEUM RESOURCES DEVELOPMENT ACT (ACT 28 of 2002)**



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

STANDARD DIRECTIVE

All applicants for mining rights are herewith, in terms of the provisions of Section 23 (a), (b) and (c) and in terms of Regulation 11 (1) (g) of the Mineral and Petroleum Resources Development Act, directed to submit a Mining Work Programme, strictly under the following headings and in the following format together with the application for a mining right.

1. REGULATION 11.1.(a): FULL PARTICULARS OF THE APPLICANT

ITEM	COMPANY CONTACT DETAILS
Name	FILYAT 64 CC
Tel no	053 963 2900
Fax no:	053 963 2009
Cellular no	082926 7311
E-mail address	kkriek@lantic.net
Postal address	P.O. Box 309 Schweizer-Reneke 2780

ITEM	CONSULTANT CONTACT DETAILS (If applicable)
Name	Japie van Zyl
Tel no	0539632008
Fax no:	0539632009
Cellular no	0829246687
E-mail address	japie@japievzylprok.co.za
Postal address	Box 960 Schweizer-Reneke 2780

2. REGULATION 11(1)(b) PLAN SHOWING THE LAND AND MINING AREA TO WHICH THE APPLICATION RELATES (the plan require in terms of Regulation 2(2))

Annexure A

3. REGULATION 11(1)(c): THE REGISTERED DESCRIPTION OF THE LAND TO WHICH THE APPLICATION RELATES

1. Portion 20 (portion of portion 19) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 477.3254 hectares
Title deed: T1822/1984

2. Remaining extent of portion 3 (Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 857.3286 hectares
Title deed: T13747/1916

3. Portion 17 (portion of portion 3 Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 25.8159 hectares
Title deed: T16921/1922

4. Portion 15 (portion of portion 3 Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 31.2035 hectares
Title deed: T16920/1922

5. Portion 14 (portion of portion 3 Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 31.9087 hectares
Title deed: T16924/1922

6. Portion 18 (portion of portion 3 Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 20.8409 hectares
Title deed: T16923/1922

7. Portion 16 (Portion of portion 3 Muirton) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 259.0493 hectares
Title deed: T16922/1922

8. Portion 21 (portion of portion 19) of the farm Mosesberg 6

Registration Division: Herbert RD
Extent: 1219.7386 hectares
Title deed: T1823/1984

9. Remaining extent of portion 19 of the farm Mosesberg 6

Registration Division: Herbert RD

Extent: 1219.7386

Title deed: T1821/1984

4. REGULATION 11(1)(d): THE DETAILS OF THE IDENTIFIED MINERAL DEPOSIT

4.1 Resource particulars

ITEM	DETAIL
Type of mineral	Diamonds General, Diamands Alluvial
Locality (Direction and distance from nearest town)	The property is situated on the Vaal River approximately 50km South West from Bakly West on the R370. A locality map is attached hereto as annexure "B".
Extent of the area required for mining	4142.9495ha
Extent of the area required for infrastructure, roads, servitudes etc	Apprioxamately 10 ha
Depth of the mineral below surface	The depth vary between 1-6 meters with an average depth of between 2 - 4 meters.
Geological formation	The area is underlain by the following geological types. Outcrops of the andesitic lavas of the Ventersdorp Supergroup, which is mostly overlain by calcrete, occur in isolated patches as rocky hills. Outcrops of tillite of the Dwyka Formation and shale of the Prince Albert Formation (Karoo Sequence) occur in the

north-north-western part of the study area. The largest part of the study area is underlain by Aeolian sand and sometimes alluvial gravels of tertiary to recent age covering Dwyka tillite. Surface limestones occur sporadically in the area. During the 1920s relatively rich diamond deposits were found in the ancient gravel filled water course of the Vaal River within area. The heaps of mixed gravel still present in the area attest to the disturbance to which it was subjected. The larvas are green to grey-green in colour. The non-amygdaloidal varieties occur within the study area. The amygdaloidal, which comprise quartz, agate, chalcedony and carnelian are a major source of the Vaal River agates. Stratigraphically the larvas belong to the Allenridge formation and represents the uppermost volcanic stage of the Ventersdorp Supergroup. Quartzites of the Bothaville formation which underlies the ilenridge formation, rarely outcrop within the study area and are usually exposed where alluvial diggings have removed

	the surficial deposits. The older gravels within the study area occur in channels or so-called "sluits". One prominent "sluit" is found within the study area, however there exists no evidence in the literature to suggest that the channels are sites of eroded kimberlite dykes.
	Geological Map see "Annexure "C".

4.2 Detail of person who compiled the resource statement

ITEM	DETAILS
Name	Pierre de Jager
Qualification/s	Pri. Sci. Nat
Profession	Geologist
Experience	Vast experience in geology relating to diamonds.
Professional Body (If registered)	
Registration number (if applicable):	

4.3 Locality specific geological map (in colour)

Annexure "C "

4.4 Exploration results (supporting geological reports to be listed and appended)

Prospecting activities were conducted during the period which the prospecting right was granted and the renewal period.

Geological Report attached asannexure "D"

4.5 Information required in terms of regulation 8 (in cases where the application was preceded by a prospecting right.

4.6 Mineral resource map)

Bulk sampling and pitting indicate an inferred to an indicated resource of 12 936 000 Tons of diamondiferous gravel at a grade of 0,5 cpht and an average value of R 8 000/ton.

(Assume an average gravel thickness of 0,3m and 30% of gravel been mined.)

Field mapping indicate an exploration target of 2 500 000 Tons of gravel to be pitted and bulk Sampled. (see map).

Resource Map attached as Annexure "E"

4.7 Resource statement

**Inferred to indicated resource is 12, 936,000
Exploration Target 2 500 000 tons still needs to be pitted and bulk sampled.**

5. REGULATION 11(1)(e): THE DETAILS OF THE MARKET FOR, THE MARKETS REQUIREMENTS AND PRICING IN RESPECT OF THE MINERAL CONCERNED

5.3 A list of products and their proportionate quantities

5.3.1 The applicant will conduct his activities with at least 2 x 16ft washing machines. These machines will wash 120 tonnes of gravel an hour. Activities will be conducted for 12 hours a day.

5.3.2 Calculation

2 x (washing plants) x 60 (tonnes an hour) x 12 (working hours per day x 22 (working days during the month) = 31,680 tonnes a month.

5.3.3 31,680 (tonnes) ÷ 100 x 0.5 = 158 carats a month.

5.4 Market for each specific product in terms of Local, Regional or International

The diamonds will be sold at CS Diamonds tender house situated in Kimberley and at other tender houses as determined from time to time.

5.5 Summary of product consumers

Jewellers and industrial.

5.6 Summary of customer specifications and details of any proposed beneficiation of the products

The diamonds can be beneficiated into jewellery. Under quality can be beneficiated into industrial jewellery.

5.7 Summary of infrastructure requirements such as roads, rail, electricity and water

Some of the infrastructure has already been erected during the prospecting phase.

Erection of mining plant : 2 x 16 feet washing pans.

5.8 Summary of other information applied that may influence price, e.g. exchange rate, duties, tariff barriers etc.

Exchange rate, tight market conditions, quality of diamonds.

5.9 The price to be used in the cash flow forecast.

R8210.00

5.10 Confirmation that a specialist market analysis is attached as an appendix which explains the assumptions made and how the price was determined.

See Annexure "F"

6. REGULATION 11(1)(f): THE DETAILS WITH REGARD TO THE APPLICABLE TIMEFRAMES AND SCHEDULING OF THE VARIOUS IMPLEMENTATION PHASES AND A TECHNICALLY JUSTIFIED ESTIMATE OF THE PERIOD REQUIRED

6.1 Timeframes and scheduling of implementation Phases

6.1.1 Explanation of time taken to develop the mine and commence production.

The applicant envisage that in can take about six months to get the mine to full operation. The applicant will access the property with the equipment within 120 days after the mining right has been executed and the EMP has been approved.

6.1.2 Explanation of the production build up period once production commences.

From date of mining activities commences the production will be build up so that the mine can be in full production a month after date of commencement.

6.1.3 Explanation of production decline period (as grades deteriorate).

In the event that the diamond price is lower than estimate \$600 a carat and the grade drops below 0.15 carats per 100 ton, the holder will then consider to put the mine on care and maintenance.

6.1.4 Production forecast for each year over the full period applied for based on the above explanations. (Not Life of Mine calculation).

Year 1 - 30

31,680 x 30 = 950, 400 a year.

6.2 Technically justified estimate of the period required

(Description of the rate of production, estimated payable reserve ratio, efficiency factors and extraction rates, relative to available resources to justify the period applied for).

$$\mathbf{12,936,000 \div 31,680 \text{ tons a month} = 410 \text{ months}} \\ \mathbf{= 30 \text{ years}}$$

7 REGULATION 11(1)(g)(i) THE DETAILS WITH REGARD TO THE COSTING OF THE MINING TECHNIQUE, MINING TECHNOLOGY AND PRODUCTION RATES (excluding labour and capital)

7.1 Mine design map

(Include a high level map indicating the basic mine design and schematic mining schedule).

The mine design is simplistic. The processing plant will comprise of 2 x16 feet washing pans. The pans have their own feeders. The gravel will be moved into the feeders by loaders from the gravel stockpile into a screen and it will be transported into a scrubber. From the scrubber it will be transported by conveyerbelts to the 2 x 16ft pans. From the 16 ft pans the processed material will be removed. This material will then be sorted. Diamonds will be recovered from these sorting activities.

See annexure "G" for a mine design map

7.2 Description of the mining method's impact on operating cost.

7.2.1 Basic overview of the mining method

The gravel will be removed from the property by excavator/s. It will be loaded by the excavator onto a dumper truck which will transport the gravel to the gravel stockpile. From here the gravel will be moved by a front-end loader to the screen and scrubber into the washing plants and to the flowsort plant. The gravel will be processed in the plant for later sorting of the concentrate

derived from the plant in the flowsort. All waste will either be accumulated in a dam and used for rehabilitation, by washing the waste back into the excavations. Tailings will be pumped into the tailings dam.

7.2.2 Description of equipment and activities impacting electricity cost (excluding the processing plant)

The only electricity to be used will be for the processing plant, the washing plants and for the flowsort to sort the concentrate. Electricity will be used in infrastructure development to provide lighting and for the employees to provide lightning, to electrify the housing quarters.

7.2.3 Description of equipment and activities impacting on fuel cost

Excavators, front end loaders, dumper trucks, possible use of the power plants

7.2.4 Description of equipment and activities impacting on cost of stores and materials

Parts for the equipment listed in 7.2.3

7.2.5 Description of equipment and activities impacting on the cost of water

Processing and the use of water by the workers employed and working on the site + processing activities.

7.2.6 Description of activities impacting on other cost not included above

None

7.2.7 Operating Cost Forecast (Excluding the processing plant and Labour) For first 10 years

COST CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Fuel	3 120 000	3 276 000	3 439 800	3 611 790	3 792 380	3 981 998	4 181 098	4 390 153	4 609 660	4 840 144
Electricity	50 000	52 500	55 125	57 881	60 775	63 814	67 004	70 355	73 873	77 566
Water	4500	4725	4961	5209	5470	5743	6030	6331	6648	6980
Stores and materials	100 000	105 000	110 250	115 763	121 551	1276 29	134 010	140 711	147 746	155 134
Other (specify)	470 000	493 500	518 175	544 084	571 288	599 852	629 845	661 337	694 404	729 124
TOTAL COST (To be reflected in the cash flow forecast)	3, 744, 500	3, 931, 725	4, 128, 311	4, 334, 727	4, 551, 464	4, 779, 036	5, 017, 987	5, 268, 887	5, 532, 331	5, 808, 948

NB! The costs determined here must explain the costs used in line item 4 of the cash flow forecast required herein under Regulation 11 (1) (g) (vi)

8 REGULATION 11(1) (g) (ii): DETAILS AND COSTS OF THE TECHNOLOGICAL PROCESS APPLICABLE TO THE EXTRACTION AND PREPARATION OF THE MINERAL OR MINERALS TO COMPLY WITH MARKET REQUIREMENTS

8.1 High level description of the processing plant

8.1.1 Basic plant design. (supported by a process flow diagram, of the plant).

Except for processing it is not foreseen that there will be any technological processes for the extraction and preparation for the minerals. The minerals are diamonds, which will be sold in a form the way they are found. The Tender House where the diamonds will be sold, will deep boil the diamonds. The cost of the deep boiling is subtract from the 1.5% commission payed over to the Tender House.

8.1.2 Efficiency of the process. (together with an estimate of the mineral recovery rate, and the expected mass or volume of mine waste or residues together with the manner in which it would be disposed of.)

The mineral recovery rate will be 0.5 carats per 100 tons of gravel processed. Approximately 1.2t - 1.6t of the residue will be formed for everyone ton of gravel processed. The reason here for is for the water used during the processing activities. The residue will either be washed back into the excavations or washed into a tailings dam.

8.2 Description of equipment and activities impacting electricity cost (excluding the processing plant)

The only electricity to be used will be for the processing plant , washing plants and for the flowsort to sort the concentrate. Electricity will be used in infrastructure development to provide lighting and for the employees to provide lightning, to electrify the rounding courters.

8.3 Description of equipment and activities impacting on fuel cost

**Excavators, front end loaders, dumper trucks,
possible use of the power plants.**

8.4 Description of equipment and activities impacting on cost of
stores and materials

Parts for the equipment listed in 8.2

8.5 Description of equipment and activities impacting on the cost of
water

**Processing and the use of water by the workers
employed and working on the site + processing
activities.**

8.6 Description of activities impacting on other cost not included
above

None

8.6.1 Processing plant operating cost forecast (Excluding Labour) For first 10 years

COST CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Fuel	780 000	819 000	859 950	902 948	948 095	995 500	1, 045, 275	1, 097, 538	1, 152, 416	1, 210, 037
Electricity	117 600	123 480	129 654	136 136	142 944	150 091	157 595	165 475	173 749	182 436
Water	3700 0	38 850	4079 2	4283 2	4497 4	4722 3	4958 4	5206 3	5466 7	5740 0
Stores and materials	0	0	0	0	0	0	0	0	0	0
Other (specify)	320 000	336 000	352 800	370 440	388 962	408 410	428 830	450 272	472 785	496 425
TOTAL COST (To be reflected in the cash flow forecast)	1, 254, 600	1, 317, 330	1, 383, 196	1, 452, 356	1, 524, 975	1, 601, 1224	1, 681, 284	1,76 5,34 8	1, 856, 617	1, 946, 298

NB! The costs determined here must explain the costs used in line item 5 of the cash flow forecast required herein under Regulation 11 (1) (g) (vi)

The applicant does not budget seperatly for these cost. Given the nature of the operations it is not possible for the applicant to strip the cost into separate units.

9 REGULATION 11 (1) (g) (iii): DETAILS AND COSTING OF THE TECHNICAL SKILLS AND EXPERTISE AND EXPERTISE AND ASSOCIATED LABOUR IMPLICATIONS REQUIRED TO CONDUCT THE PROPOSED MINING OPERATION

9.1 Organizational Structure of the mine

9.1.1 Description of positions requiring certificates of competency and under which skills category they have been budgeted for.

Environmental, mine health and safety and operational. Environmental and geological are under service providers, mine health and safety and geological are under experienced specialists and operators under semiskilled

See design attached as annexure "H"

9.1.2 Description of which part or parts of the mining operation will be outsourced (if any)

9.1.2.1 Description of positions requiring certificates of competency and under which skills category they have been budgeted for.

All mining activities will be conducted by the applicants appointed contractors. The applicant has appointed G en A Delwery CC to conduct the mining activities.

See Agreement Confirmation as Annexure "I".

**The applicant has appointed a Geologist (Pierre de Jager) to conduct geological work on the property.
See appointment letter as Annexure "J".**

**The applicant will further appoint a mine health and safety company to oversee the Mine Health and Safety activities. Such appointment only to be made where the Mining Right has been granted. Milnex 189 CC has been appointed as the Environmental Consultants to oversee the compliance of the operations with the Environmental Regulations.
See appointment letter as Annexure "K".**

9.2 Costing of the skills categories in the mining operation to determine if technical competence has been budgeted for: Complete the following tables:

MINE EMPLOYEES

PERSONNEL ON THE MINE'S PAYROLL: (Years 1 to5)

CATEGORY	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5	
	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET
Top management	0	0	0	0	0	0	0	0	0	0
Senior Management	0	0	0	0	0	0	0	0	0	0
Professionally qualified and experienced specialists and mid-management	0	0	0	0	0	0	0	0	0	0
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	0	0	0	0	0	0	0	0	0	0
Semi-skilled and discretionary decision making	0	0	0	0	0	0	0	0	0	0
Non permanent Employees	0	0	0	0	0	0	0	0	0	0
TOTAL PERSONNEL EXPENDITURE	0	0	0	0	0	0	0	0	0	0

PERSONNEL ON THE MINE'S PAYROLL: (Years 6 to10)

CATEGORY	YEAR 6		YEAR 7		YEAR 8		YEAR 9		YEAR 10	
	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET	NO. OF POSITIONS	BUDGET
Top management	0	0	0	0	0	0	0	0	0	0
Senior Management	0	0	0	0	0	0	0	0	0	0
Professionally qualified and experienced specialists and mid-management	0	0	0	0	0	0	0	0	0	0
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	0	0	0	0	0	0	0	0	0	0
Semi-skilled and discretionary decision making	0	0	0	0	0	0	0	0	0	0
Non permanent Employees	0	0	0	0	0	0	0	0	0	0
TOTAL PERSONNEL EXPENDITURE	0	0	0	0	0	0	0	0	0	0

SUBCONTRACTORS EMPLOYEES (if applicable)
(Duplicate this form for each Subcontractor)

CATEGORY	NUMBER YEAR 1	NUMBE R YEAR 2	NUMBE R YEAR 3	NUMBE R YEAR 4	NUMBE R YEAR 5	NUMBER YEAR 6	NUMBER YEAR 7	NUMBER YEAR 8	NUMBER YEAR 9	NUMBER YEAR 10
Top management	In terms of the Agreement between the Right Holder and it's contractor, all personnel including management will be done by the Contractor.	0	0	0	0	0	0	0	0	0
Senior Management	0	0	0	0	0	0	0	0	0	0
Professionally qualified and experienced specialists and mid-management	0	0	0	0	0	0	0	0	0	0
Skilled technical and academically qualified workers, junior management, supervisors, foreman	0	0	0	0	0	0	0	0	0	0

and superintendents										
Semi-skilled and discretionary decision making	0	0	0	0	0	0	0	0	0	0
TOTAL CONTRACT	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET
BUDGET (Not only salaries & wages)	0	0	0	0	0	0	0	0	0	0

SERVICE PROVIDERS

LIST OF SPECIALISTS, CONSULTANTS AND SERVICE PROVIDERS	BUDGET YEAR 1	BUDGET YEAR 2	BUDGET YEAR 3	BUDGET YEAR 4	BUDGET YEAR 5	BUDGET YEAR 6	BUDGET YEAR 7	BUDGET YEAR 8	BUDGET YEAR 9	BUDGET YEAR 10
Milnex 189 CC	72 000	75 600	79 380	83 349	87 516	91 892	96 486	101 311	106 376	111 695
Mine Health & Saftey	36 000	37 800	39 690	41 675	43 758	45 946	48 243	50 655	53 188	55 847
Geologist	10 000	10500	11025	11576	12155	12763	13400	14071	14774	15513
TOTAL BUDGET (SERVICES)	118 000	123 900	130 095	136 600	143 429	150 535	158 535	166 037	174 338	183 055

TOTAL COST OF ALL TECHNICAL SKILLS AND SERVICES REQUIRED TO OPERATE THE MINE

CATEGORY	BUDGET YEAR 1	BUDGET YEAR 2	BUDGET YEAR 3	BUDGET YEAR 4	BUDGET YEAR 5	BUDGET YEAR 6	BUDGET YEAR 7	BUDGET YEAR 8	BUDGET YEAR 9	BUDGET YEAR 10
IN HOUSE SKILLS AND SERVICES	0	0	0	0	0	0	0	0	0	0
SKILLS AND SERVICES PROVIDED BY SUBCONTRACTORS	6 825 000	7 16 6250	7 524 562	7 900 790	8 295 830	8 710 621	9 146 152	9 603 460	10 083 633	10 587 815
SKILLS AND SERVICES PROVIDED BY SERVICE PROVIDERS	0	0	0	0	0	0	0	0	0	0
TOTAL BUDGET FOR TECHNICAL SKILLS AND COMPETENCE	6 825 000	7 16 6250	7 524 562	7 900 790	8 295 830	8 710 621	9 146 152	9 603 460	10 083 633	10 587 815

NB! THE TOTAL BUDGET FOR TECHNICAL SKILLS AND SERVICES AND COMPETENCE MUST BE TRANSFERRED TO LINE ITEM 6 IN THE CASH FLOW FORECAST

10 REGULATION 11(1) (g) (iv): DETAILS AND COSTING OF REGULATORY REQUIREMENTS IN TERMS OF THE ACT AND OTHER APPLICABLE LAW, RELEVANT TO THE PROPOSED MINING OPERATION

10.1 Environmental cost forecast.

10.1.1 Rehabilitation cost estimate

(Refer to the guideline for Financial provision (described in Regulation 54 (1) (2) published on the Departments website. Complete 10 forecasts and paste them into this section, i.e. one for the progressive impact in each of the first 10 years of operation. The progressive total (10th year must be stated under this heading and also included into the first year of the cash flow under Regulation 11 (1) (g) (vi) below in the environmental cost category.)

It is estimated that R50 000 is spend a month on rehabilitation.

This will mean a yearly spend of R600 000 a year. It is estimated that this amount will escalate with 5% a year. As rehabilitation is conducted on an ongoing basis, as an integrated part of the activities, the diesel and other associated costs have been bugeted for in paragraph 7.2.7.

10.1.2 Socio Economic impact cost estimate.

(Refer to the guidelines on community consultation, and the scoping report template. Estimate the risk of compensation to persons whose socio-economic conditions may be directly affected by the mining operation. Provide the estimated total under this heading and also include it into the first year of the cash flow under regulation 11 (1) (g) (vi) below in the environmental cost category).

The socio-economic cost is determined to be R120 000 a month which is a equal 60,000 Rand a year. Social cost is budgeted at R 5 000 a month x 12 = R60 000.

For cashflow purposes the average amount of R120 000 is used a year.

The applicant will budget a R120 000 a month to paid for surface disterbances and for socio-economic impact the mining activities will have for the surface owner.

10.1.3 Summary of estimated environmental cost: complete the table below.

Estimated Environmental and Rehabilitation cost

CATEGORY	COST ESTIMATE
a) Progressive total for rehabilitation	R 600 000 a year
b) Cost to mitigate socio-economic conditions of directly affected persons	R120 000 a year R120 000 for surface compensation
TOTAL COSTS (Transfer amount to cash flow forecast – Line 7 Year 1 only)	840 000 a year

10.2 Other Regulatory Costs (complete the table below)

Cost	Amount per annum	Explanation on how amount was calculated
Royalties	R285,379	3% estimate of 53 024 400
Mine Health and Safety Regulations	R60 000	Amount estimated by Applicants Accountant.
Occupational Health	R102 000	R500.00 a year an employee.
Rates and Taxes	R24 000	The amount the applicant foresee the municipality will charge for rate and taxes R2 000 a month x 12
National Skills fund		
Other: Specify		
Other: Specify		
Other: Specify		

Other: Specify		
Other: Specify		
TOTAL COSTS (Include amount into the cash flow forecast – Line 7)	R471 379	

The costs thus derived must be clearly explained and used to justify the numbers that are reflected in line item 7 of the cash flow forecast required in terms of regulation 11 (1) (g) (vi).

11 REGULATION 11 (1) (g) (viii): PROVISIONS FOR THE EXECUTION OF THE SOCIAL AND LABOUR PLAN

11.1 The following table must be duplicated here from the table in SECTION 5: FINANCIAL PROVISION of the Social and Labour Plan

ESTIMATED EXPENDITURE ON THE SOCIAL AND LABOUR PLAN IN A 10 YEAR PERIOD										
ITEM	YEAR1	YEAR2	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR	YEAR10
			3	4	5	6	7	8	9	
HUMAN RESOURCE DEVELOPMENT	50 000	52 500	55 125	57 881	60 775	63 814	67 004	70 355	73 873	77 567
LOCAL ECONOMIC DEVELOPMENT	50 000	52 500	55 125	57 881	60 775	63 814	67 004	70 355	73 873	77 567
MANAGEMENT OF DOWNSCALING	20 000	21 000	22 050	23 152	24 310	25 525	26 801	28 142	29 549	31 026
ESTMATED TOTALS PER YEAR	120 000	126 000	132 300	138 914	145 860	153 153	160 809	168 852	177 295	186 160

The costs quantified in the aforesaid categories must justify the numbers that are reflected in line item 8 of the cash flow forecast required in terms of Regulation 11(1)(g)(vi).

12 REGULATION 11 (1) (g) (iv): DETAILS REGARDING OTHER RELEVANT COSTING, CAPITAL EXPENDITURE REQUIREMENTS AND EXPECTED REVENUE APPLICABLE TO THE PROPOSED MINING OPERATION.

12.1 Expected Revenue.

12.1.1 **Explanation of revenue determination.** (given the prices of the various relevant products and byproducts produced) how the price referred to in item 5.9 above, and the production referred to in item 6.1.4 above was arrived at and applied to each year's production estimate in order to estimate revenue.

158 carats per month x 11 = 1,738 carats x R8210 = R14, 268, 980.00

12.1.2 **Revenue forecast** (for each year over the full period applied for based on the above explanations. Note that this revenue estimate must be stated both here and in line item 3 of the cash flow forecast required below in terms of Regulation 11 (1) (g) (vi).)

Year 1: R14, 268, 980

Year 2: R14, 982, 429

Year 3: R15, 731, 550

Year 4: R16, 518, 812

Year 5: R17, 344, 034

Year 6: R18, 211, 236

Year 7: R19, 121, 797

Year 8: R20, 077, 887

Year 9: R21, 081, 782

Year 10: R22, 135, 871

12.2 Estimated Capital Expenditure

12.2.1 **Initial capital expenditure.**

(List of expenditure on the initial capital expenditure items).

All equipment is readily available

12.2.2 **Ongoing capital expenditure**(A discussion on ongoing capital expenditure items and estimated amount thereof in each of the years in which it will be incurred).

Budget of R1 000 000 a year from year 6.

12.2.3 **Summary, in a 10 year tabular format.** (stating the initial, ongoing, and total amount of capital expenditure in each of the first ten years in which it will be incurred.)

R1 000 000 a year from year 6.

12.3 Explanation and summary of other costs (not addressed elsewhere in the mining work programme, in each year in which they are to be incurred.)
N/a

**12.4 Summary of capital and other costs. Complete the table below
R1 000 000 from year 6 for 5 years.**

SUMMARY OF CAPITAL AND OTHER EXPENDITURE

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Initial capital expenditure	7,733 000	7,73 3 000	7,73 3 000	7,73 3 000	7,73 3 000	0	0	0	0	0
Ongoing capital expenditure						1 000 000	1 000 000	1 000 000	1 000 000	1 000 000
Other costs specified in 12.3 above	0	0	0	0	0	0	0	0	0	0
TOTAL CAPITAL AND OTHER <small>(To be reflected in the cash flow forecast)</small>	7,733 000	7,73 3 000	7,73 3 000	7,73 3 000	7,73 3 000	1 000 000	1 000 000	1 000 000	1 000 000	1 000 000

(Note ! These total amounts must be transferred to line item 9 of the cash flow forecast required in terms of Regulation 11 (1) (g) (vi) below.

13 REGULATION 11 (1) (g) (vi): A DETAILED CASH FLOW FORECAST AND VALUATION, EXCLUDING FINANCING OF THE PROPOSED MINING OPERATION, WHICH FORECAST MUST ALSO CLEARLY INDICATE HOW THE APPLICABLE REGULATORY COSTS WILL BE ACCOMMODATED THEREIN.

(The following cash flow forecast must be submitted in accordance with the line items provided. The applicant may not change the line items or their sequence. The applicant may, however provide for escalation within accepted practice, and provide other indicators such as IRR in addition)

See cash flow attached hereto.

CASH FLOW FORECAST AND VALUATION (REGULATION 11(g)(vi))												
		Y1 R'000	Y2 R'000	Y3 R'000	Y4 R'000	Y5 R'000	Y6 R'000	Y7 R'000	Y8 R'000	Y9 R'000	Y10 R'000	TOTAL R'000
1	REGULATIONS 11(1) (d) and (f) PRODUCTION	1,738	1825	1917	2013	2114	2219	2330	2447	2569	2698	
2	REGULATION 11(1) (e) PRICE	8210	8210	8210	8210	8210	8210	8210	8210	8210	8210	
3	REVENUE	14268980	14983250	15738570	16526730	17355940	18217990	19129300	20089870	21914490	22150580	
4	REGULATION 11(1) (g) (i) MINING COST	3,744,500	3,931,725	4,128,311	4,334,727	4,551,464	4,779,036	5,017,987	5,268,887	5,532,331	5,808,948	
5	REGULATION 11(1) (g) (ii) TECHNOLOGY COST	1,254,600	1,317,33	1,383,196	1,452,356	1,524,975	1,601,224	1,681,284	1,765,348	1,856,617	1,946,298	
6	REGULATION 11(1) (g) (iii) TECHNICAL SKILLS COST	118000	123900	130095	136600	143430	150602	158132	166039	174340	183058	
7	REGULATION 11(1) (g) (iv) REGULATORY REQUIREMENTS	471,379	494,948	519,695	545,680	572,964	601,612	631,693	663,277	696,441	731,263	
	ENVIRONMENTAL COST	600000	600000	600000	600000	600000	600000	600000	600000	600000	600000	
8	REGULATION 11 (1)(G) (viii) SOCIAL AND LABOUR PLAN COST	120000	126000	132300	138914	145860	153153	160809	168852	177295	186160	
9	REGULATION 11(1) (g) (v) CAPITAL AND OTHER	120000	126000	132000	138000	145000	500000	500000	500000	500000	500000	
10	WORKING PROFIT/LOSS	7840501	9448448	8712973	9181053	9671387	9832363	10379125				

11	TAX											
12	NET CASH FLOW											
13	DISCOUNTED CASH FLOW											

The Applicant may provide for escalation, based on accepted practice, and may provide other indicators such as IRR.

. For the avoidance of doubt a cash flow as prepared by the applicant is attached hereto as Annexure "L" showing the cost in detail on a yearly basis. Please work from the attached cashflow.

14 REGULATION 11 (1) (g) (vii): DETAILS REGARDING THE APPLICANTS RESOURCES OR PROPOSED MECHANISMS TO FINANCE THE PROPOSED MINING OPERATION, AND DETAILS REGARDING THE IMPACT OF SUCH FINANCING ARRANGEMENTS ON THE CASH FLOW FORECAST.

14.1 Financing the cash flow

(Provide in tabular format an explanation of how the cash flow will be financed, showing the amounts, the type of financing, eg. Loans, equity, retained earnings, etc, as well as the impact of financing on the cash flow in terms of financial arrangements and repayments)

No financing will be needed. The business will operate on a nett cash flow. The applicant has employed G en A Delwery CC to conduct the operations on behalf of the applicant as contractor. See undertaking attached hereto as Annexure "I". The mining operations will be self financed. We attach hereto the statements as proof hereof as with an undertaking. See Annexures "L".

14.2 Detail regarding the financing arrangements

(Elaborate on the financing arrangements that are described in item 14.1 above, in terms of where the finance will be sourced, extent to which the financing has been finalized and on the level of certainty that such financing can be secured.)

The mining activities will be self finance from phase 1. Attached hereto please find the Memorandum of Agreement and the undertaking of G & A Delwery CC as annexure "I" and "M".

14.3 Confirmation of supporting evidence appended

(Attach evidence of available funding and or financing arrangements such as balance sheets, agreements with financial institutions, underwriting agreements, etc. and **specifically confirm** in this regard what documentation has been attached as appendices).

**See the cash flow attached and Bank statements:
See Annexure "L "**

List of Equipment: See Annexure "N"

List of Employees: See Annexure "O"

15 REGULATION 11 (1) (h): UNDERTAKING, SIGNED BY THE APPLICANT, TO ADHERE TO THE PROPOSALS AS SET OUT IN THE MINING WORK PROGRAMME

Herewith I, the person whose name and identity number is stated below, confirm that I am the Applicant or the person authorised to act as representative of the Applicant in terms of the resolution submitted with the application, and undertake to implement this mining work programme and adhere to the proposals set out herein.

Full Names and Surname	N.J KRIEK
Identity Number	710812 5022 081



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

SCOPING REPORT

MINING RIGHT APPLICATION OF DIAMONDS ALLUVIAL & DIAMONDS GENERAL NEAR BARKLY WEST ON PORTION 20 (PORTION OF PORTION 19), REMAINING EXTENT OF PORTION 3 (MUIRTON), PORTION 17 (PORTION OF PORTION 3 MUIRTON), PORTION 15 (PORTION OF PORTION 3 MUIRTON), PORTION 14 (PORTION OF PORTION 3 MUIRTON), PORTION 18 (PORTION OF PORTION 3 MUIRTON), PORTION 16 (PORTION OF PORTION 3 MUIRTON), PORTION 21 (PORTION OF PORTION 19) & REMAINING EXTENT OF PORTION 19 OF THE FARM MOSESBERG 6; REGISTRATION DIVISION BARKLY WES, NORTHERN CAPE PROVINCE.

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

NAME OF APPLICANT	Filyat 64 CC
TEL NO	(018) 011 1925
FAX NO	087 231 7021
POSTAL ADDRESS:	P.O. Box 1086, Schweizer-Reneke, 2780
PHYSICAL ADDRESS:	4 Botha Street, Schweizer-Reneke, 2780
FILE REFERENCE NUMBER SAMRAD:	NC30/5/1/2/2/10103MR

IMPORTANT NOTICE

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

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

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

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

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

OBJECTIVE OF THE SCOPING PROCESS

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

SCOPING REPORT

2) Contact Person and correspondence address

a) Details of:

i) The EAP who prepared the report

Name of Practitioner: Danie Labuschagne

Tel No.: (018) 011 1925

Fax No. : (053) 963 2009

e-mail address: danie@milnex-sa.co.za

Name of Practitioner: Percy Sehaole

Tel No.: (018) 011 1925

Fax No. : (053) 963 2009

e-mail address: percy@milnex-sa.co.za

ii) Expertise of the EAP.

(1) The qualifications of the EAP

(With evidence attached as **Appendix 1**).

Danie Labuschagne holds a Master's Degree in Environmental Management and Geography (refer to **Appendix 1**)

Percy Sehaole holds a Master's Degree in Environmental Science (refer to **Appendix 1**)

(2) Summary of the EAP's past experience.

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

Milnex 189 CC was contracted by Filyat 64 CC as the independent environmental consultant to undertake the Scoping and EIA process for a mining right for the mining of Diamonds Alluvial & Diamonds General near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province. Milnex 189 CC does not have any interest in secondary developments that may arise out of the authorisation of the proposed project.

Milnex 189 CC is a specialist environmental consultancy with extensive experience in the mining industry which provides a holistic environmental management service, including environmental assessment and planning to ensure compliance with relevant

environmental legislation. Milnex 189 CC benefits from the pooled resources, diverse skills and experience in the environmental and mining field held by its team that has been actively involved in undertaking environmental studies for a wide variety of mining related projects throughout South Africa. The Milnex 189 CC team has considerable experience in environmental impact assessment and environmental management, especially in the mining industry.

Danie Labuschagne & Percy Sehaole have experience consulting in the environmental field. Their key focus is on environmental assessment, advice and management and ensuring compliance to legislation and guidelines. They are currently involved in undertaking EIAs for several projects across the country (refer to **Appendix 2** for CV)

b) Description of the property.

Farm Name:	<ol style="list-style-type: none"> 1. Portion 20 (portion of portion 19) of the farm Mosesberg 6 2. Remaining extent of portion 3 (Muirton) of the farm Mosesberg 6 3. Portion 17 (portion of portion 3 Muirton) of the farm Mosesberg 6 4. Portion 15 (portion of portion 3 Muirton) of the farm Mosesberg 6 5. Portion 14 (portion of portion 3 Muirton) of the farm Mosesberg 6 6. Portion 18 (portion of portion 3 Muirton) of the farm Mosesberg 6 7. Portion 16 (Portion of portion 3 Muirton) of the farm Mosesberg 6 8. Portion 21 (portion of portion 19) of the farm Mosesberg 6 9. Remaining extent of portion 19 of the farm Mosesberg 6
Application area (Ha)	4137.9495 Ha
Magisterial district:	Barkley west
Distance and direction from nearest town	The property is situated on the Orange River approximately 30km from Prieska in a Northern Easterly direction.
21 digit Surveyor General Code for each farm portion	<p>C0070000000000600020</p> <p>C0070000000000600003</p> <p>C0070000000000600017</p> <p>C0070000000000600015</p> <p>C0070000000000600014</p> <p>C0070000000000600018</p> <p>C0070000000000600016</p> <p>C0070000000000600021</p> <p>C0070000000000600019</p>

c) Locality map

(show nearest town, scale not smaller than 1:250000 attached as **Appendix 3**).

A Locality map is attached in **Appendix 3** and on figure 1 below.

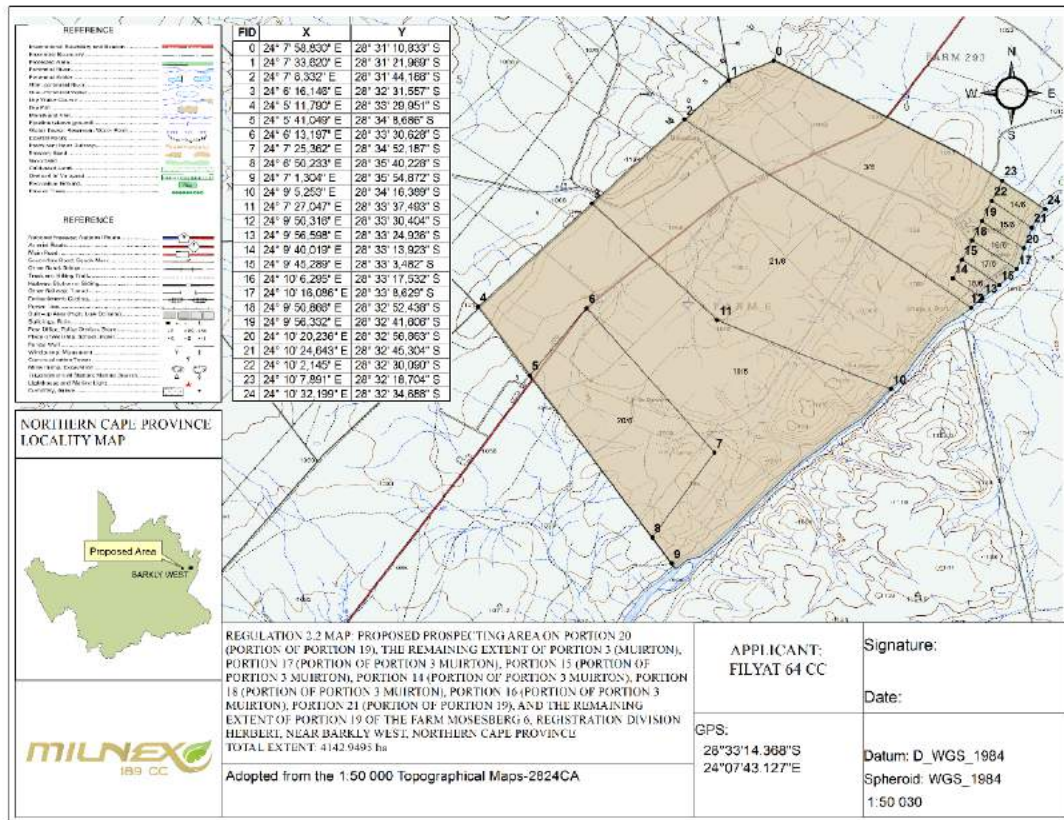


Figure 1: Locality Map

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

i) **Listed and specified activities**

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

Refer to Site Plan included within **Appendix 4**.

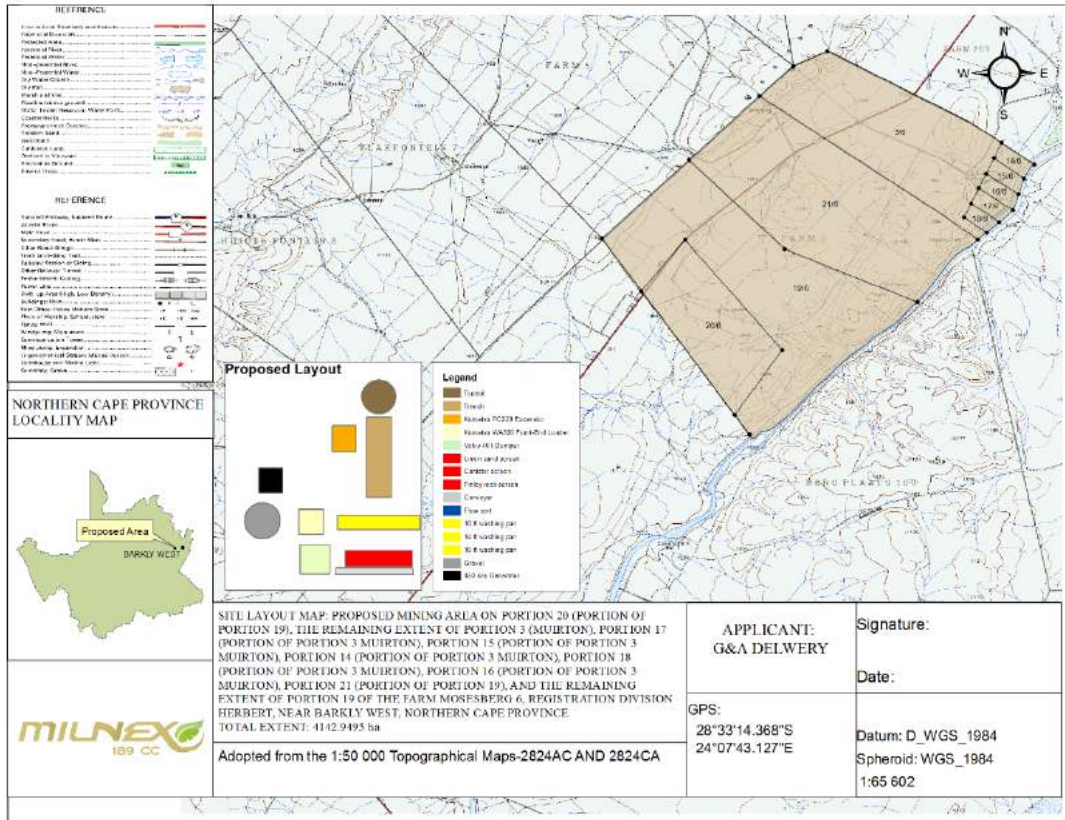


Figure 2: Site Plan Map

NAME OF ACTIVITY (All activities including activities not listed) (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.)	Aerial extent of the Activity Ha or m ²	LISTED ACTIVITY Mark with an X where applicable or affected.	APPLICABLE LISTING NOTICE (GNR 983, GNR 984 or GNR 985)/NOT LISTED
Clearance of indigenous vegetation	4142.9495 hectares - Only the areas where mining takes place, will be cleared. 5ha of area disturbed at any one stage)	X	GNR. 984
Office and Workshop	50m ²	-	-
Roads	+ - 4 km	-	-
Stockpiling op topsoil	4142.9495 hectares - Only the areas where mining takes place, will be cleared. 5ha of	-	-

	area disturbed at any one stage)		
Mining of Diamond Alluvial - Excavations	4142.9495 hectares - Only the areas where mining takes place, will be cleared. 5ha of area disturbed at any one stage)	X	GNR. 984
Processing Plant	Excavators, front end loaders, dumper trucks, possible use of the power plants	X	-

ii) Description of the activities to be undertaken

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

Basic overview of the mining method

The gravel will be removed from the property by excavator/s. It will be loaded by the excavator onto a dumper truck which will transport the gravel to the gravel stockpile. From here the gravel will be moved by a front-end loader to the screen and scrubber into the washing plants and to the flowsort plant. The gravel will be processed in the plant for later sorting of the concentrate derived from the plant in the flowsort. All waste will either be accumulated in a dam or used for rehabilitation, by washing the waste back into the excavations. Tailings will be pumped into the tailings dam.

The only electricity to be used will be for the processing plant, the washing plants and for the flowsort to sort the concentrate. Electricity will be used in infrastructure development to provide lighting and for the employees to provide lightning, to electrify the housing quarters.

It should be noted that the open cast area can't be completely backfilled since the rock layer will be removed, crushed and the manganese and iron ore will be sold. Therefore benches will be blasted at closure to create sloped sides. The topsoil and overburden will be backfilled to the open cast area. The area will be sloped as far as possible. Furthermore, as an open cast will be still left behind, the area will be fenced in order to avoid injuries to animals or humans.

e) Policy and Legislative Context

APPLICABLE LEGISLATION AND GUIDELINES USED TO COMPILE THE REPORT (a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process);	REFERENCE WHERE APPLIED
The Constitution of South Africa (Act No. 108 of 1996)	-

The National Environmental Management Act (Act No. 107 of 1998)	S24(1) of NEMA S28(1) of NEMA
The National Water Act (Act No. 36 of 1998)	S21 (a)(b) of NWA
Management: Air Quality Act (Act No. 39 of 2004)	S21
The National Heritage Resources Act (Act No. 25 of 1999)	-
Conservation of Agricultural Resources Act (Act No. 85 of 1983)	-
Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)	-
National Infrastructure Plan	-
North West Province Growth and Development Strategy	-
ZF Mgcawu District Municipality Integrated Development Plan (IDP)	-
Tsantsabane Local Municipality Local Municipality Integrated Development Plan (IDP) Review	-

f) Need and desirability of the proposed activities.

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

Prospecting rights, mining permits and mining rights have been applied for all around the proposed site, and the outcome of that studies suggest the possibility of encountering further manganese and iron ore deposits.

The Northern Cape Province is an important supplier of iron ore, manganese and diamonds to the international market and is a large corner stone of the South African economy.

g) Period for which the environmental authorisation is required.

The environmental authorisation is required for a minimum period of 30 years.

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

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

Bulk sampling and pitting indicate an inferred to an indicated resource of 12 936 000 Tons of diamondiferous gravel at a grade of 0,5 cph and an average value of R 8 000/ton.

(Assume an average gravel thickness of 0,3m and 30% of gravel been mined.)

Field mapping indicate an exploration target of 2 500 000 Tons of gravel to be pitted and bulk Sampled.

i) Details of all alternatives considered.

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

- (a) the property on which or location where it is proposed to undertake the activity;

- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

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

As discussed in the previous section, based on outcomes of previous studies on the proposed site, the possibility to encounter further manganese and iron ore Reserves on Mosesberg 6 were identified.

Furthermore, no other properties have been secured by the applicant Filyat 64 CC.

(b) The type of activity to be undertaken

In terms of the technologies proposed, these have been chosen based on long term success in terms of their mining history. The mining activities proposed in the Mining Work Programme is dependent on the preceding phase, therefore no alternatives are indicated, but rather a phased approach of trusted mining techniques.

(c) The design or layout of the activity

The location of the mining activities was determined based on the surface mapping, drilling and geophysics of the activities (see **Appendix 9** for the Programme). The proposed area consist of land in Class VII has very severe limitations that makes it unsuited to cultivation and that restrict its use largely to grazing, woodland or wildlife. Tributaries from the Vaalriver, agriculture, houses, roads and dams. The farm border the Vaalriver. Where applicable a Water Use License Application will be launched for conducting mining operations. All infrastructure will be temporary and/or mobile.

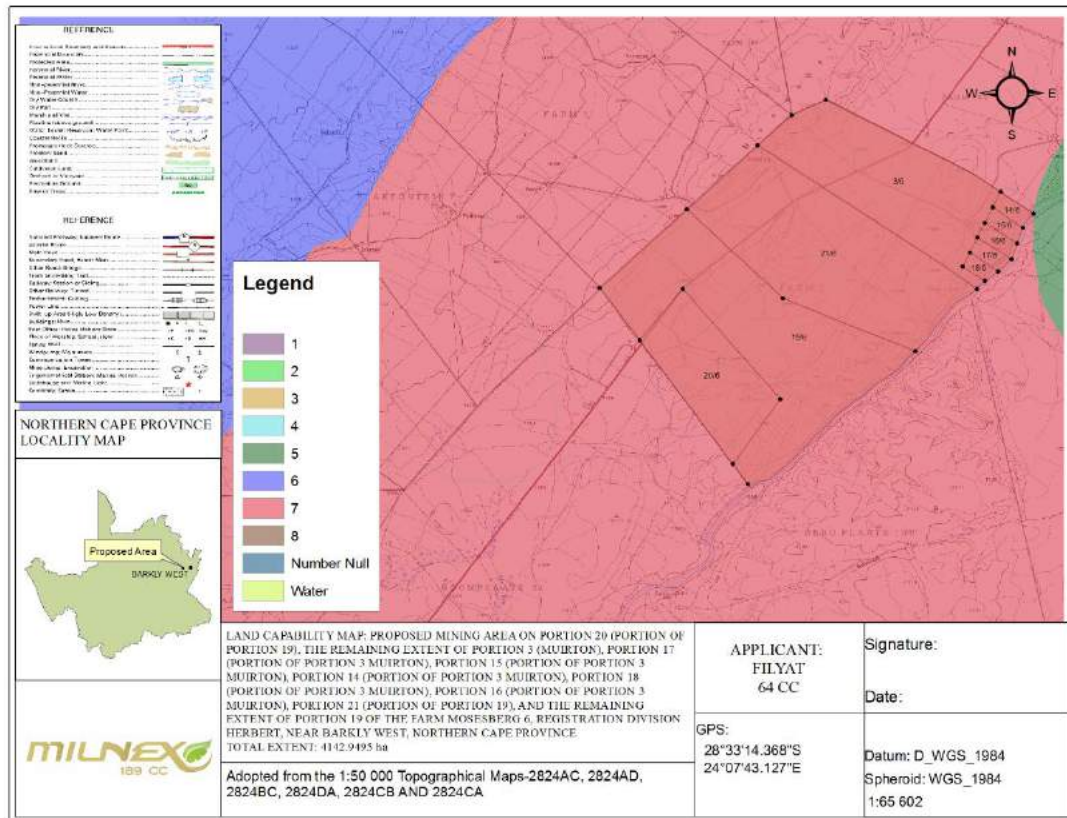


Figure 3: Land Capability Map

(d) The technology to be used in the activity

When it comes to dust suppression two main methods were considered, namely molasses stillage and the wetting (water) of roads. The table below provides a short summary of the advantages and disadvantages of each.

Water	Molasses stillage
More cost effective	Much more expensive
Could lead to the depleting of water resources	Requires less water
No damage (only if used excessively)	The product may be toxic to aquatic organisms. (As this product could have physical effects on aquatic organisms for e.g. floating, osmotic damage)
No harm to humans or animals(Only a high quantity will have harm to humans or animals)	Not Hazardous or toxic. Could cause irritation to eyes, skin or when ingested and inhaled.
Non-flammable	Non-flammable
Eye-wash fountains not needed	Eye-wash fountains in the work place are strongly recommended
	Working procedures should be designed to minimize worker exposure to this product.

Basic storing methods	Storing methods are a bit more complicated. Should be stored in a plastic, plastic lined or stainless steel, tight closed containers between 5 and 40 degrees Centigrade.
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Considering the above mentioned information, water will be used for dust suppression purposes.

(f) The option of not implementing the activity

The option of not approving the activities will result in a significant loss of valuable information regarding the mineral status, the loss of jobs and the economy will be impacted negatively.

ii) Details of the Public Participation Process Followed

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

1. Advertisement and Notices

Newspaper advertisement

An advertisement will be placed in English in the local newspaper (Noordkaap) on the 27 April 2016 (see **Appendix 6**) notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Milnex 189 CC. I&APs were given the opportunity to raise comments within 30 days of the advertisement.

Site notices

Site notices will be placed on site in English to inform surrounding communities and immediately adjacent landowners of the proposed development. Photographic evidence of the site notices is included in **Appendix 6**.

Direct notification and circulation of Scoping Report to identified I&APs

Identified I&APs, including key stakeholders representing various sectors, are directly informed of the proposed development and the availability of the Scoping Report via registered post on 29 April 2016 and were requested to submit comments by 30 May 2016. A copy of the report is also available at the Milnex offices, Schweizer-Reneke and Potchefstroom, from 7:30 – 17:00, Monday to Friday. For a complete list of stakeholder details and for proof of registered post see **Appendix 6**. The consultees included:

- Northern Cape Department of Environmental Affairs and Nature Conservation (DEANC)
- The Department of Water and Sanitation (Northern Cape DWS)

- NC Department of Agriculture, Forestry and Fisheries (NC DAFF)
- Provincial Heritage Resources Agency (NC PHRA)
- Department of Roads and Public Works (NC DRPW)
- NC Department of Mineral Resources (NC DMR)
- WESSA
- Frances Baard District Municipality
- The Municipal Manager at the Dikgatlong Local Municipality
- The Local Councilor at the Dikgatlong Local Municipality
- South African National Roads Agency (SANRAL)
- South African Heritage Resources Agency (SAHRA)

It is expected from I&APs to provide their inputs and comments within 30 days after receipt of the notification or Scoping Report.

Direct notification of surrounding land owners and occupiers

Written notices and the availability of the Scoping Report are also provided to all surrounding land owners and occupiers on 29 April 2016. The surrounding land owners are given the opportunity to raise comments by 30 May 2016. For a list of surrounding land owners see **Appendix 6**.

Consultation

All I&AP's are invited to attend the public meeting scheduled for the **18 May 2016 at 14:00pm–15:00pm** on the proposed site, Portion 21 (portion of portion 19) of the farm Mosesberg 6. Registration Division Barkly Wes, Northern Cape Province. The public meeting is an opportunity to share information regarding the proposed development and provide I&APs with an opportunity to raise any issues and provide comments. The following key stakeholders and surrounding land owners are also directly informed of the public meeting via registered post 29 April 2016

Portion 21 (portion of portion 19) of the farm Mosesberg 6		
Date	Time:	Coordinates:
18 May 2016	14:00pm–15:00pm	28°31'59.85"S 24° 7'17.38"E

- Northern Cape Department of Environmental Affairs and Nature Conservation (DEANC)
- The Department of Water and Sanitation (Northern Cape DWS)
- NC Department of Agriculture, Forestry and Fisheries (NC DAFF)
- Provincial Heritage Resources Agency (NC PHRA)
- Department of Roads and Public Works (NC DRPW)
- NC Department of Mineral Resources (NC DMR)
- WESSA
- Frances Baard District Municipality
- The Municipal Manager at the Dikgatlong Local Municipality
- The Local Councilor at the Dikgatlong Local Municipality

- South African National Roads Agency (SANRAL)
- South African Heritage Resources Agency (SAHRA)
- Land owner 1: Distinctive Choice 1153 CC
- Land owner 2: Regal Royal Development (Pty) Ltd
- Land owner 3: William Kenneth Shaw
- Land owner 4: Duncan Clifford Shaw
- De Beers Consolidated Mines (Pty) Ltd
- A & B Moller Boerdery CC
- Ronald Cawood
- Department of Rural Development and Land Reform Northern Cape Manager: Cynthia Nkoane
- Paalsewerf Boerdery CC
- LPHN Boerdery Pty Ltd
- Schmidtsdrift Communal Property Association

3. Issues Raised by Interested and Affected Parties

Comments received are included in the comments and response table/form (See Appendix 6 for comments and response form).

iii) Summary of issues raised by I&APs

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

Interested and Affected Parties		Date Comments Received	Issues raised	EAPs response to issues as mandated by the applicant	Section and paragraph reference in this report where the issue and or response where incorporated
List the names of persons consulted in this column, and Mark with an X where those who must be consulted were in fact consulted.					
Organisation	Contact person				
Land Owner					
Mosesberg RE/3/6	Distinctive Choice 1153 CC				
Mosesberg 14/6,15/6, 16/6, 17/6 & 18/6	Regal Royal Development (Pty) Ltd				
Mosesberg RE/19/6 & 20/6	William Kenneth Shaw				
Mosesberg 21/6	Duncan Clifford Shaw				
Landowners or lawful occupiers on adjacent properties					
Bergplaats RE/100 & Klipfontein RE/99	De Beers Consolidated Mines (Pty) Ltd				
Farm 3/5	A & B Moller Boerdery CC				
Farm 4/5	Ronald Cawood				
Farm RE/293	Department of Rural Development and Land Reform Northern Cape Manager:				
Farm 1/293 & Farm 1/294	Dikgatlong Local Municipality				
Farm 2/293	Paalsewerf Boerdery CC				
Valkfontein 1/7	LPHN Boerdery Pty Ltd				

Schmidtsdrift RE/248	Schmidtsdrift Communal Property Association				
The Municipality in which jurisdiction the development is located					
Dikgatlong Local Municipality	Municipal Manager: Kgotso Moeketsi				
Municipal councilor of the ward in which the site is located					
Dikgatlong Local Municipality	Ward 6 Councilor				
Organs of state having jurisdiction					
Northern Cape Department of Environmental Affairs and Nature Conservation (DEANC)	Mrs. Doreen Werth				
The Department of Water and Sanitation (Northern Cape DWS)	Chief Director: Mr A Abrahams				
NC Department of Agriculture, Forestry and Fisheries (NC DAFF)	Mr. Viljoen Mothibi				
The Department of Agriculture (Dep. Agric)	Ms. Anneliza Collett/ Ms. Mashudu Marubini				
Provincial Heritage Resources Agency (NC PHRA)	K. Sofoleng				
Department of Roads and Public Works (NC DRPW)	HOD: Ms. Ruth Palm				
NC Department of Mineral Resources (NC DMR)	Sunday Mabaso				
Northern Cape Department of Environmental Affairs	Mrs. Doreen Werth				

and Nature Conservation (DEANC)					
NC Department of Rural Development & Land Reform: Land Restitution Support	Ms Baulackey				
Other–					
Frances Baard District Municipality	Municipal Manager: Ms Z M Bogatsu				
South African Heritage Resources Agency (SAHRA)					
WESSA	Mr. John Wesson				
SANRAL Corporate Office	To whom it may concern				

iv) The Environmental attributes associated with the sites

(1) Baseline Environment

The baseline environment is described with specific reference to geotechnical conditions, ecological habitat and landscape features, Soil, land capability and agricultural potential, climate and the visual landscape.

(a) Type of environment affected by the proposed activity.

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

Geological Formations

The area is underlain by the following geological types. Outcrops of the andesitic lavas of the Ventersdorp Supergroup, which is mostly overlain by calcrete, occur in isolated patches as rocky hills. Outcrops of tillite of the Dwyka Formation and shale of the Prince Albert Formation (Karoo Sequence) occur in the north-north-western part of the study area. The largest part of the study area is underlain by Aeolian sand and sometimes alluvial gravels of tertiary to recent age covering Dwyka tillite. Surface limestones occur sporadically in the area. During the 1920s relatively rich diamond deposits were found in the ancient gravel filled water course of the Vaal River within area. The heaps of mixed gravel still present in the area attest to the disturbance to which it was subjected.

The lavas are green to grey-green in colour. The non-amygdaloidal varieties occur within the study area. The amygdaloidal, which comprise quartz, agate, chalcedony and carnelian are a major source of the Vaal River agates. Stratigraphically the lavas belong to the Allenridge formation and represents the uppermost volcanic stage of the Ventersdorp Supergroup. Quartzites of the Bothaville formation which underlies the Allenridge formation, rarely outcrop within the study area and are usually exposed where alluvial diggings have removed the surficial deposits.

The older gravels within the study area occur in channels or so-called “sluits”. One prominent “sluit” is found within the study area, however there exists no evidence in the literature to suggest that the channels are sites of eroded kimberlite dykes.

Ecological habitat and landscape features

In terms of vegetation type the site falls within the Schmidtsdrift Thornveld vegetation type (Mucina and Rutherford, 2006). **See figure 2 below and appendix 7**

Schmidtsdrift Thornveld

According to Mucina and Rutherford (2006:518) the Schmidtsdrift Thornveld vegetation covers the Northern Cape, Free State and North West provinces. Foothills and midslopes to the southeast and below the Ghaap Plateau from around Douglas in the southwest via Schmidtsdrift towards Taung in the northeast. A small less typical section is found east of the Ghaap Plateau from Warrenton towards Hertzogville. This thornveld is situated on an altitude of 1000m – 1350m and is least threatened.

Vegetation and landscape features can be defined as mostly closed shrubby thornveld dominated by *Acacia mellifera* and *A. tortilis*. Apart from grasses, bulbous and annual herbaceous plants species are also prominent. The vegetation is sometimes very disturbed due to overgrazing by goats and other browsers.

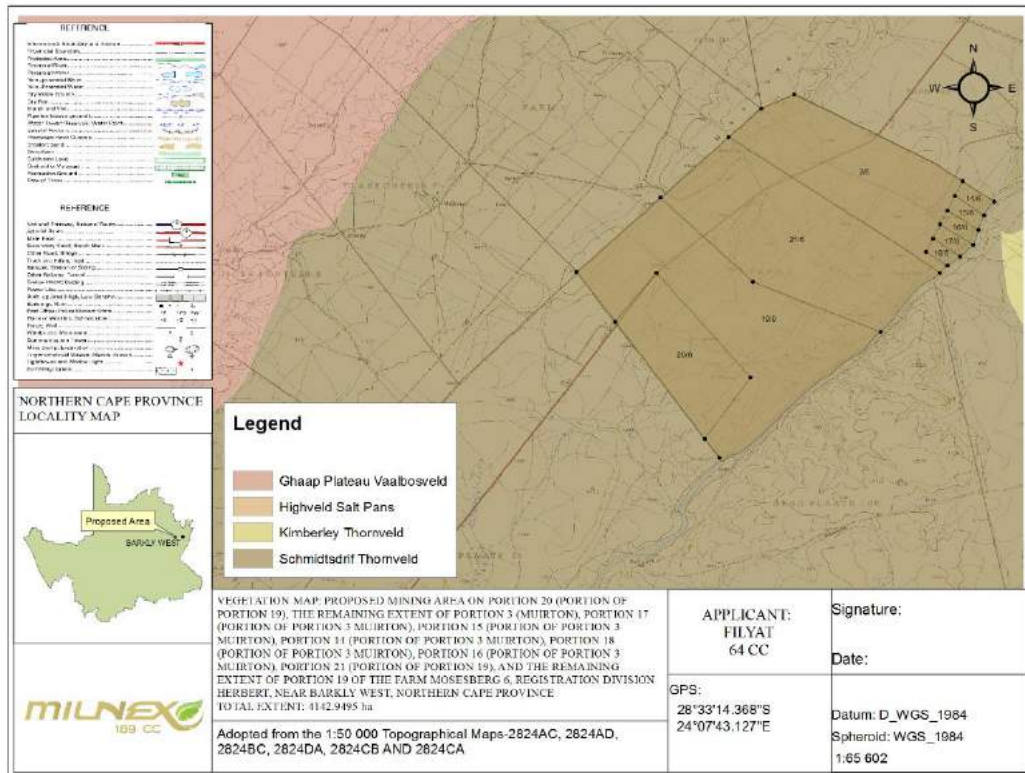


Figure 4: Vegetation Unit Map

According to the protected areas map, the proposed mining right area does not fall within any protected areas neither does it fall under the threatened ecosystem. Below figure 3 depicts areas which are protected areas map.

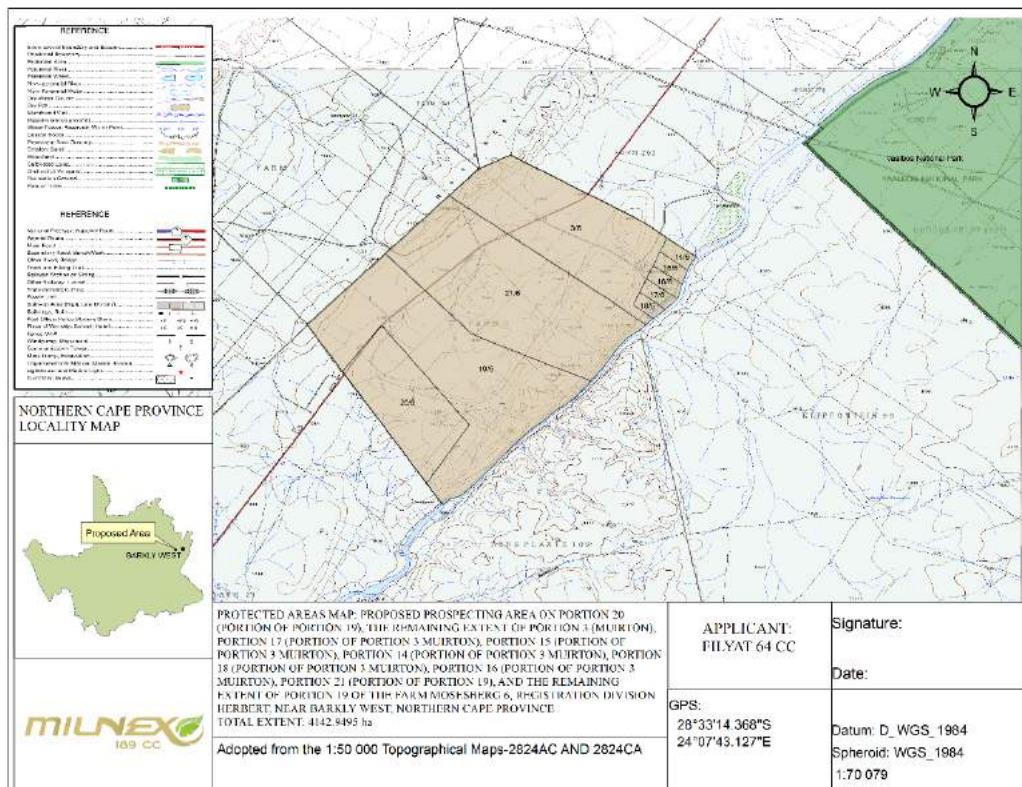


Figure 5: Protected areas Unit Map

Land capability and agricultural potential

- **Climate and water availability**

Delpoortshoop normally receives about 280mm of rain per year, with most rainfall occurring mainly during summer. It receives the lowest rainfall (0mm) in June and the highest (64mm) in March. The monthly distribution of average daily maximum temperatures shows that the average midday temperatures for Delpoortshoop range from 19°C in June to 33°C in January. The region is the coldest during July when the mercury drops to 1°C on average during the night.

- **Agricultural / land capability**

Land capability is the combination of soil suitability and climate factors. The proposed area consist of land in Class VII has very severe limitations that makes it unsuited to cultivation and that restrict its use largely to grazing, woodland or wildlife.

Critical Biodiversity Area

According to B-GIS “Critical biodiversity areas (CBAs) are areas of the landscape that need to be maintained in a natural or near-natural state in order to ensure the continued existence and functioning of species and ecosystems and the delivery of ecosystem services”, therefore the purpose of CBA’s is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape.

According to the B-GIS database there are no data for this Municipality.



Figure 6: Critical Biodiversity Area Map

Description of the socio-economic environment

- **Socio-economic conditions**

Dikgatlong Local Municipality was established in 2000 through the Local Government Demarcation process whereby the towns of Barkly West, Delpoortshoop and Windsorton were amalgamated into one municipality. The name Dikgatlong is derived from a Setswana word meaning “confluence” as it refers to the place where the Harts and Vaal rivers flow into each

other at Delpoortshoop. Dikgatlong is a local Municipality and is one of four local Municipalities within the jurisdiction area of Francis Baard District Municipality. Francis Baard is again one of five within the boundaries of the Northern Cape Province.

According to the 2001 census the total population of Dikgatlong was estimated 35 765 people. A huge influx of people into Dikgatlong has since then taken place. It is roughly estimated that the total population could be as high as 80 000.

Dikgatlong has also received its share of foreigners that had moved to the Municipality. Barkly West is the most densely populated area, with Delpoortshoop second and Windsorton bringing up the rear. The dominant languages in the area are Setswana (50%) and Afrikaans (40%).

The overall Unemployment in Dikgatlong is alarmingly high and is estimated as high as 45% in general and in some areas such as Delpoortshoop, Holpan, Pniel, Waldecksplant and Windsorton higher as 50%. The local economy is growing at a lower rate as the inflation rate with the majority of the households (56%) earning between R800 –R1600 per month. The biggest contributors to the GGP are the following sectors: Agriculture (22%), Mining (7%), and Manufacturing (7%).

The socio-economic conditions are largely shaped by the high percentage of unemployment that prevails in the municipality. The economic landscape is dominated by the large number of diamond diggers with a few large companies and the rest mainly consisting of smaller companies and informal operators. There are no large companies in operation in the borders of the municipality with limited employment opportunities. The poor economic climate is contributing to poor social conditions throughout the municipality. The percentage of unemployment increased after the decline in the mining industry and agriculture sector and is estimated at 45%. It is also estimated that approximately 40% of the population earns income below the poverty line.

- Cultural and heritage aspects

Special attention was given to the identification of possible cultural or heritage resources on site. The majority of surface area is already disturbed by agricultural activities.

There are no known sites of archaeological interest such as graves on the mine site. If and when any traces of such sites are discovered all prospecting activities will be seized whilst a specialist will be appointed to conduct a report.

Windsorton is an agricultural town situated in the Vaalharts Irrigation Scheme on the banks of the Vaal River in the Northern Cape province of South Africa.

The village is located on the Vaal River, 55 km north of Kimberley, 35 km northeast of Barkly West and 40 km south-west of Warrenton. It was founded in 1869 as a diamond-diggers' camp and was administered by a village management board. The town started as Hebron, a mission station, but when diamonds were discovered, the area was flooded with prospectors and the town became a diggers' camp. The town was renamed after P F (Peter Ford) Windsor, the original owner of the land, who was instrumental in its development

- Heritage aspects

Special attention will be given to the identification of possible cultural or heritage resources on site.

However heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected by the National Heritage Resources Act no 25 of 1999. Therefore if such resources are found during the prospecting or development activities, they shall not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA must be contacted immediately and work will stop.

(b) Description of the current land uses.

The site survey revealed that land uses on and in the immediate vicinity of the proposed development are essentially comprised of mining and grazing land. The proposed area consist of land in Class VII has very severe limitations that makes it unsuited to cultivation and that restrict its use largely to grazing, woodland or wildlife. Tributaries from the Vaalriver, agriculture, houses, roads and dams. The farm border the Vaalriver. Where applicable a Water Use License Application will be launched for conducting mining operations. All infrastructure will be temporary and/or mobile.

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

The proposed farm portions consist of Grazing and forestry land (Classes VII).

(d) Environmental and current land use map.

(Show all environmental, and current land use features)

A Locality map is attached in **Appendix 3**.

v) Impacts identified

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

- Impacts during construction phase:
 - Impacts on the fauna and flora
 - Impacts on the soil
 - Impacts associated with the geology of the site
 - Impacts on existing services infrastructure
 - Impacts on surface water (wetlands/pans)
 - Temporary employment and other economic benefits
 - Impacts on heritage resources
- Impacts during the operational phase:
 - Impacts on the soil
 - Impacts associated with the geology of the site
 - Impacts on surface water (wetlands/pans)

- Increase in employment and other economic benefits
 - Visual impacts
 - Generation of income to the Local Community
 - Pressure on existing services infrastructure and water sources.
- Impacts during the decommissioning / mine closure phase:
- Loss of permanent employment & the creation of temporary employment

vi) Methodology used in determining the significance of environmental impacts

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

Scoping methodology

The contents and methodology of the scoping report aims to provide, as far as possible, a user-friendly analysis of information to allow for easy interpretation.

- Checklist: The checklist consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts.
- Matrix: The matrix analysis provides a holistic indication of the relationship and interaction between the various activities, development phases and the impact thereof on the environment. The method aims at providing a first order cause and effect relationship between the environment and the proposed activity. The matrix is designed to indicate the relationship between the different stressors and receptors which leads to specific impacts. The matrix also indicates the specialist studies, which will be submitted as part of the Environmental Impact Report in order to address the potentially most significant impacts.

Checklist analysis

The independent consultant conducted a site visit on the 16 February 2016. The site visit was conducted to ensure a proper analysis of the site specific characteristics of the study area. The table below provides a checklist, which is designed to stimulate thought regarding possible consequences of specific actions and so assist scoping of key issues. It consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts. The table highlights certain issues, which are further analysed in matrix format.

Table: Environmental checklist

QUESTION	YES	NO	Un-sure	Description
1. Are any of the following located on the site earmarked for the development?				
I. A river, stream, dam or wetland	X			The proposed area consist of land in Class VII has very severe limitations that makes it unsuited to cultivation and that restrict its use largely to grazing, woodland or wildlife. Tributaries from the Vaalriver, agriculture, houses, roads and dams. The farm border the Vaalriver. Where applicable a Water Use License Application will be launched for conducting mining operations. All infrastructure will be temporary and/or mobile.
II. A conservation or open space area		X		None.

III. An area that is of cultural importance		×		None but if such objects should be found while mining, the mining activities will stop immediately and a specialist will be appointed to conduct further studies.
IV. Site of geological significance		×		None.
V. Areas of outstanding natural beauty		×		None.
VI. Highly productive agricultural land		×		None.
VII. Floodplain		×		None.
VIII. Indigenous forest		×		None.
IX. Grass land		×		None.
X. Bird nesting sites		×		None.
XI. Red data species		×		None.
XII. Tourist resort		×		None.
2. Will the project potentially result in potential?				
I. Removal of people		×		None.
II. Visual Impacts	×			The visual impact will be managed
III. Noise pollution		×		The noise impact is unlikely to be significant.
IV. Construction of an access road		×		None. Access will be obtained from gravel road off the R370.
V. Risk to human or valuable ecosystems due to explosion/fire/ discharge of waste into water or air.		×		None.
VI. Accumulation of large workforce (>50 manual workers) into the site.		×		Approximately 15 employment opportunities will be created during the construction and operational phase of the project.
VII. Utilisation of significant volumes of local raw materials such as water, wood etc.	×			Approximately 10 000- 36 000 L per hour each from which 30% is re-used.
VIII. Job creation		×		Approximately 15 employment opportunities will be created during the construction and operational phase of the project.
IX. Traffic generation		×		None.
X. Soil erosion		×		Only areas earmarked for mining will be cleared. The mining will be phased and the topsoil stockpiled separately. Concurrent rehabilitation will take place. The soil also has a low erosion potential.
XI. Installation of additional bulk telecommunication transmission lines or facilities		×		None.
3. Is the proposed project located near the following?				
I. A river, stream, dam or wetland	×			Adjacent the Vaalriver
II. A conservation or open space area		×		None.
III. An area that is of cultural importance		×		None.
IV. A site of geological significance		×		None.
V. An area of outstanding natural beauty		×		None.
VI. Highly productive agricultural land		×		None.
VII. A tourist resort		×		None.
VIII. A formal or informal settlement		×		None.

5.1 Matrix analysis

The matrix describes the relevant listed activities, the aspects of the development that will apply to the specific listed activity, a description of the environmental issues and potential impacts, and the significance and magnitude of the potential impacts. The matrix also highlights areas of particular concern for more in depth assessment during the EIA process. Each cell is evaluated individually in terms of the nature of the impact, duration and its significance – should no mitigation measures be applied. This is important since many impacts would not be considered insignificant if proper mitigation measures were implemented. The matrix also provides an indication if mitigation measures are available.

In order to conceptualise the different impacts the matrix specify the following:

- **Stressor:** Indicates the aspect of the proposed activity, which initiates and cause impacts on elements of the environment.
- **Receptor:** Highlights the recipient and most important components of the environment affected by the stressor.
- **Impacts:** Indicates the net result of the cause-effect between the stressor and receptor.
- **Mitigation:** Impacts need to be mitigated to minimise the effect on the environment.

Matrix Analysis

LISTED ACTIVITY (The Stressor)	ASPECTS OF THE DEVELOPMENT /ACTIVITY	POTENTIAL IMPACTS		SIGNIFICANCE AND MAGNITUDE OF POTENTIAL IMPACTS			MITIGATION OF POTENTIAL IMPACTS	SPECIALIST STUDIES / INFORMATION	
		Receptors	Impact description	Minor	Major	Duration	Possible Mitigation		
CONSTRUCTION PHASE									
<p><i>Listing Notice GNR 983, Activity 24(ii): "The development of a road with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres." - The development of 10m wide road, with no road reserve.</i></p> <p><i>Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation."</i></p> <p><i>Listing Notice GNR 984, Activity 17: "Any activity including the operation of that activity which requires a mining right as contemplated on 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." - Mining right for the mining of Diamonds Alluvial & Diamonds General including associated infrastructure, structure and earthworks.</i></p>	<p><u>Site clearing and preparation</u> Areas earmarked for mining will need to be cleared, topsoil will be stockpiled separately.</p>	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> Loss or fragmentation of indigenous natural vegetation. Loss of sensitive species. Loss or fragmentation of habitats. 		-	S	Yes	-
			Air	<ul style="list-style-type: none"> Air pollution due to the increase of traffic of construction vehicles. 	-		S	Yes	-
			Soil	<ul style="list-style-type: none"> Soil degradation, including erosion. Loss of topsoil. Disturbance of soils and existing land use (soil compaction). 		-	S	Yes	-
			Geology	<ul style="list-style-type: none"> It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa. 		-	S	Yes	-
			Existing services infrastructure	<ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the local sewage plant. 		-	S	Yes	-
			Ground water	<ul style="list-style-type: none"> Pollution due to construction vehicles. 	-		S	Yes	-
			Surface water	<ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). 		-	S	Yes	-
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> Job creation. Business opportunities. Skills development. 		+	S	Yes	-
			Visual landscape	<ul style="list-style-type: none"> Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility. 	-		S	Yes	-
			Traffic volumes	<ul style="list-style-type: none"> Increase in construction vehicles. 	-		S	Yes	-
			Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. Increased risk of veld fires. 		-	S	Yes	-

		Noise levels	<ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, the use of machinery such as drills and people working on the site. 	-		S	Yes	-	
		Tourism industry	<ul style="list-style-type: none"> Since there are no tourism facilities in close proximity to the site, the proposed activities will not have an impact on tourism in the area. 	N/A	N/A	N/A	N/A	-	
		Heritage resources	<ul style="list-style-type: none"> Removal or destruction of archaeological and/or paleontological sites. Removal or destruction of buildings, structures, places and equipment of cultural significance. Removal or destruction of graves, cemeteries and burial grounds. 		-	S	Yes	-	
<p><i>Listing Notice GNR 983, Activity 24(ii): "The development of a road with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres." - The development of 10m wide road, with no road reserve.</i></p> <p><i>Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation."</i></p> <p><i>Listing Notice GNR 984, Activity 17: "Any activity including the operation of that activity which requires a mining right as contemplated on 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." – Mining right for the mining of Iron Ore and Manganese, including associated infrastructure, structure and earthworks.</i></p>	<p><u>Site clearing and preparation</u> Areas earmarked for mining will need to be cleared, topsoil will be stockpiled separately. This will inevitably result in the removal of indigenous vegetation located on the site.</p>	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> Loss or fragmentation of indigenous natural vegetation. Loss of sensitive species. Loss or fragmentation of habitats. 		-	S	Yes	-
		Air quality	<ul style="list-style-type: none"> Air pollution due to the increase of traffic. 	-		S	Yes	-	
		Soil	<ul style="list-style-type: none"> Soil degradation, including erosion. Disturbance of soils and existing land use (soil compaction). Loss of agricultural potential (low significance relative to agricultural potential of the site). 	-		S	Yes	-	
		Geology	<ul style="list-style-type: none"> It is not foreseen that the removal of indigenous vegetation will impact on the geology or vice versa. 	N/A	N/A	N/A	N/A	-	
		Existing services infrastructure	<ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the local sewage plant. 	-		S	Yes	-	
		Ground water	<ul style="list-style-type: none"> Pollution due to construction vehicles. 	-		S	Yes	-	
		Surface water	<ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). 	-		S	Yes	-	
		SOCIAL/ECONOMIC ENVIRONMENT	Local unemployment rate	<ul style="list-style-type: none"> Job creation. Skills development. 		+	S	N/A	-
		Visual landscape	<ul style="list-style-type: none"> Potential visual impact on residents of farmsteads and motorists in close proximity to proposed facility due to dust. 	-		S	Yes	-	
		Traffic volumes	<ul style="list-style-type: none"> Increase in construction vehicles. 	-		S	Yes	-	

		Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. 		-	S	Yes	-	
		Noise levels	<ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, and people working on the site. 	-		S	Yes	-	
		Tourism industry	<ul style="list-style-type: none"> Since there are no tourism facilities in close proximity to the site, the proposed activity will not have an impact on tourism in the area. 	N/A	N/A	N/A	N/A	-	
		Heritage resources	<ul style="list-style-type: none"> Removal or destruction of archaeological and/or paleontological sites. Removal or destruction of buildings, structures, places and equipment of cultural significance. Removal or destruction of graves, cemeteries and burial grounds. 	N/A	N/A	N/A	N/A	-	
OPERATIONAL PHASE									
<p>Listing Notice GNR 983, Activity 24(ii): "The development of a road with a reserve wider than 13.5 metres, or where no reserve exists where the road is wider than 8 metres." - The development of 10m wide road, with no road reserve.</p> <p>Listing Notice GNR 984, Activity 15: "The clearance of an area of 20 hectares or more, of indigenous vegetation."</p> <p>Listing Notice GNR 984, Activity 17: "Any activity including the operation of that activity which requires a mining right as contemplated on 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." – Mining right for the mining of Iron Ore and Manganese, including associated infrastructure, structure and earthworks.</p> <p>Listing Notice GNR 984, Activity 21: "Any activity including the operation of that activity associated with the primary processing of a mineral resource"</p>	<p>The key components of the proposed project are described below:</p> <ul style="list-style-type: none"> <u>Supporting Infrastructure</u> - A control facility with basic services such as water and electricity will be constructed on the site and will have an approximate footprint 50m² or less. Other supporting infrastructure includes a site office and workshop area. <u>Roads</u> – Access will be obtained from gravel road off the R370. All site roads will require a width of approximately 10m. <u>Fencing</u> - For health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm. 	Biophysical Environment	Fauna & Flora	<ul style="list-style-type: none"> Fragmentation of habitats. Establishment and spread of declared weeds and alien invader plants (operations). 	-		L	Yes	-
		Air quality	<ul style="list-style-type: none"> Air pollution due to the mining activity, crusher plant and transport of the gravel to the designated areas. 	N/A	N/A	N/A	N/A	-	
		Soil	<ul style="list-style-type: none"> Soil degradation, including erosion. Disturbance of soils and existing land use (soil compaction). Loss of agricultural potential (low significance relative to agricultural potential of the site). 		-	L	Yes	-	
		Geology	<ul style="list-style-type: none"> Collapsible soil. Seepage (shallow water table). Active soil (high soil heave). Erodible soil. The presence of undermined ground. Instability due to soluble rock. Steep slopes or areas of unstable natural slopes. Areas subject to seismic activity. Areas subject to flooding. 		-	S	Yes	-	
		Existing services infrastructure	<ul style="list-style-type: none"> Generation of waste that need to be accommodated at a licensed landfill site. Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. Increased consumption of water. Approximately 10-18 000 L per hour 		-	L	Yes	-	
		Ground water	<ul style="list-style-type: none"> Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies. 	-		L	Yes	-	
		Surface water	<ul style="list-style-type: none"> Increase in storm water runoff. The development will potentially result in an increase in storm water run-off that needs to be managed to prevent soil erosion. Destruction of watercourses (pans/dams/streams). 		-	L	Yes	-	

<p>including winning, reduction, extraction, classifying, concentrating, crushing, screening and washing but excluding the smelting, beneficiation, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies.”</p>		SOCIAL/ECONOMIC ENVIRONMENT		<ul style="list-style-type: none"> Leakage of hazardous materials. The machinery on site require oils and fuel to function. Leakage of these oils and fuels can contaminate water supplies. 						
			Local unemployment rate	<ul style="list-style-type: none"> Job creation. Security guards will be required for 24 hours every day of the week an Skills development. 		+	L	Yes	-	
			Visual landscape	<ul style="list-style-type: none"> Change in land-use/sense of place. The site is characterized by open veldt with a rural agricultural sense of place. The use of the area for the mining activity will result in the area not being used for livestock grazing anymore until rehabilitated. 		-	L	Yes	-	
			Traffic volumes	<ul style="list-style-type: none"> Increase in vehicles collecting gravel for distribution. 	-		S	Yes	-	
			Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. 	N/A	N/A	N/A	N/A	-	
			Noise levels	<ul style="list-style-type: none"> The proposed development will result in noise pollution during the operational phase. 	-	-	S	Yes	-	
			Tourism industry	<ul style="list-style-type: none"> Since there are no tourism facilities in close proximity to the site, the decommissioning activities will not have an impact on tourism in the area. 	N/A	N/A	N/A	N/A	-	
			Heritage resources	<ul style="list-style-type: none"> It is not foreseen that the proposed activity will impact on heritage resources or vice versa. 	N/A	N/A	N/A	N/A	-	
DECOMMISSIONING PHASE										
-	<p><u>Mine closure</u> During the mine closure the Mine and its associated infrastructure will be dismantled.</p> <p><u>Rehabilitation of biophysical environment</u> The biophysical environment will be rehabilitated.</p>	BIOPHYSICAL ENVIRONMENT	Fauna & Flora	<ul style="list-style-type: none"> Re-vegetation of exposed soil surfaces to ensure no erosion in these areas. 	+		L	Yes	-	
			Air quality	<ul style="list-style-type: none"> Air pollution due to the increase of traffic of construction vehicles. 	-		S	Yes	-	
			Soil	<ul style="list-style-type: none"> Backfilling of all voids Placing of topsoil on backfill 	+		L	Yes	-	
			Geology	<ul style="list-style-type: none"> It is not foreseen that the decommissioning phase will impact on the geology of the site or vice versa. 	N/A	N/A	N/A	N/A	-	
			Existing services infrastructure	<ul style="list-style-type: none"> Generation of waste that need to be accommodated at the local landfill site. Generation of sewage that need to be accommodated by the municipal sewerage system and the local sewage plant. Increase in construction vehicles. 	-		S	Yes	-	
			Ground water	<ul style="list-style-type: none"> Pollution due to construction vehicles. 	-		S	Yes	-	
			Surface water	<ul style="list-style-type: none"> Increase in storm water run-off. Pollution of water sources due to soil erosion. Destruction of watercourses (pans/dams/streams). 	-		S	Yes	-	
			Local unemployment rate	<ul style="list-style-type: none"> Loss of employment. 		-	L	Yes	-	
			Visual landscape	<ul style="list-style-type: none"> Potential visual impact on visual receptors in close proximity to proposed facility. 	-		S	Yes	-	
			Traffic volumes	<ul style="list-style-type: none"> Increase in construction vehicles. 	-		S	Yes	-	
			Health & Safety	<ul style="list-style-type: none"> Air/dust pollution. Road safety. 	-			Yes	-	

				<ul style="list-style-type: none"> Increased crime levels. The presence of mine workers on the site may increase security risks associated with an increase in crime levels as a result of influx of people in the rural area. 					
			Noise levels	<ul style="list-style-type: none"> The generation of noise as a result of construction vehicles, the use of machinery and people working on the site. 	-		S	Yes	-
			Tourism industry	<ul style="list-style-type: none"> Since there are no tourism facilities in close proximity to the site, the decommissioning activities will not have an impact on tourism in the area. 	N/A	N/A	N/A	N/A	-
			Heritage resources	<ul style="list-style-type: none"> It is not foreseen that the decommissioning phase will impact on any heritage resources. 	N/A	N/A	N/A	N/A	-

(N/A) No impact (+) Positive Impact (-) Negative Impact (S) Short Term (M) Medium Term (L) Long Term

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

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

- Increased ambient noise levels resulting from geophysics site fly-overs and increased traffic movement during all mining phases.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on environmental resources utilized by communities, landowners and other stakeholders.
- Potential water and soil pollution impacts resulting from hydrocarbon spills and soil erosion which may impact on ecosystem functioning.
- Increased vehicle activity within the area resulting in the possible destruction and disturbance of fauna and flora.
- Poor access control to farms which may impact on cattle movement, breeding and grazing practices.
- Influx of persons (job seekers) to site as a result of increased activity and the possible resultant increase in opportunistic crime.
- Potential visual impacts caused by mining activities.
- It is not anticipated that employment opportunities for local and / or regional communities will result from the mining activities.

viii) The possible mitigation measures that could be applied and the level of risk.

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

When the comment period ends, comments received will be included in the comments and response form/table (See Appendix 6 for comments and response form).

ix) The outcome of the site selection Matrix. Final Site Layout Plan

(Provide a final site layout plan as informed by the process of consultation with interested and affected parties)

Refer to the proposed site layout map below and attached as **Appendix 5**.

x) Motivation where no alternative sites were considered.

As discussed in the previous section, based on outcomes of previous studies on the proposed site, the possibility to encounter further Diamonds Alluvial & Diamonds General reserves on the farms Mosesberg 6 were identified.

Furthermore, no other properties have been secured by the applicant, Filyat 64 CC.

xi) Statement motivating the preferred site.

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

The site is preferred due to its possibility of having Diamonds Alluvial & Diamonds General reserves, the property is also only suitable for low potential grazing land due to the climate and property conditions

No other properties have been secured by the applicant.

(i) Plan of study for the Environmental Impact Assessment process

i. Description of alternatives to be considered including the option of not going ahead with the activity.

The option of not approving the activities will result in a significant loss of valuable information regarding the mineral status (in terms of Diamonds Alluvial & Diamonds General) present on these properties. In addition to this, should economical reserves be present and the applicant does not have the opportunity to prospect, the opportunity to utilize these reserves for future phases will be lost.

ii. Description of the aspects to be assessed as part of the environmental impact assessment process

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

Table: Aspects to be assessed

Aspects / potential impacts	Description of the aspect	Specialist studies / technical information
Biophysical Environment		
Impacts on the fauna and flora	Refer to Matrix table	EAP assessment (using desktop studies, GIS, site visits and the book written by Mucina and Rutherford(The Vegetation of South Africa, Lesotho and Swaziland)
Impacts on the air quality	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on the soil	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts associated with the geology of the site	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on existing services infrastructure	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on ground and surface water	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Socio / Economic Environment		
Impacts on local employment rate	Refer to Matrix table	EAP assessment (using desktop studies, IDP's and SDF's)

Impacts on visual landscape	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on traffic volumes	Refer to Matrix table	EAP assessment (using desktop studies, GIS using BGIS data, site visits)
Impacts on health & safety	Refer to Matrix table	EAP assessment (desktop studies, site visits)

iii. Description of aspects to be assessed by specialists

No need for specialist studies are foreseen at this stage.

iv. Proposed method of assessing the environmental aspects including the proposed method of assessing alternatives

The environmental assessment aims to identify the various possible environmental impacts that could result from the proposed activity. Different impacts need to be evaluated in terms of their significance and in doing so highlight the most critical issues to be addressed.

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in the table below.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

v. The proposed method of assessing duration significance

Impact Rating System

Impact assessment must take account of the nature, scale and duration of impacts on the environment whether such impacts are positive or negative. Each impact is also assessed according to the project phases:

- planning
- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact the following criteria is used:

Table: The rating system

NATURE		
Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.		
GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be experienced.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.
3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
PROBABILITY		
This describes the chance of occurrence of an impact.		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
DURATION		
This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated

		by direct human action or by natural processes thereafter (10 – 30 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite.
INTENSITY/ MAGNITUDE		
Describes the severity of an impact.		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
REVERSIBILITY		
This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.
IRREPLACEABLE LOSS OF RESOURCES		

This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.
CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects.
2	Low cumulative impact	The impact would result in insignificant cumulative effects.
3	Medium cumulative impact	The impact would result in minor cumulative effects.
4	High cumulative impact	The impact would result in significant cumulative effects
SIGNIFICANCE		
Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The calculation of the significance of an impact uses the following formula: (Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.		
The summation of the different criteria will produce a non-weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.		
Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects.

51 to 73	Negative high impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

vi. The stages at which the competent authority will be consulted

Consultation with the competent and commenting authorities will continue throughout the duration of impact assessment phase. The authorities will also comment on whether they deem it necessary to conduct any specialist studies. On-going consultation will include:

- Submission of the Scoping following a 30 day public review period (and consideration of comments received).
- Submission of the EIR following a 30 day public review period (and consideration of comments received).
- Arrangements will be made to discuss the report with the Environmental Officer responsible for the project during the review period.
- An opportunity to visit and inspect the site.

vii. Particulars of the public participation process with regard to the Impact Assessment process that will be conducted

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

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

All registered I&APs and relevant State Departments will be given the opportunity to review the Scoping, EIR and EMP in accordance with Regulation R982. A minimum of 30 days commenting period will be allowed and all stakeholders and I&APs will be given an opportunity to forward their written comments within that period. All issues identified during this public review period will be documented and compiled into a Comments and Response Report to be included as part of the Final EIR to be submitted to the North West Department of Mineral Resources.

2. Details of the engagement process to be followed.

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

The public participation process will be conducted strictly in accordance with Regulations 39-44. The following three categories of variables will take into account when deciding the required level of public participation:

- The scale of anticipated impacts.
- The sensitivity of the affected environment and the degree of controversy of the project.
- The characteristics of the potentially affected parties.

the following public participation mechanisms will be used:

- Newspaper advertisement in local newspaper
- Site notices
- Direct notification of surrounding land owners and occupiers
- Circulation of scoping report
- Circulation of EIR
- Public participation meeting
- Direct notification to all stakeholders of the Environmental Authorisation given

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

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

The letter provided to I&APs comprises of a activity, extent and location description, including a locality map of the proposed activity and a Dropbox link to the full Scoping report and Appendices. It also indicates where a hard copy of the report can be viewed or if the need arises for a copy of the report a request can be sent to the relevant EAP who will forward a CD containing all the relevant information.

viii. Description of the tasks that will be undertaken during the environmental impact assessment process

Tasks to be undertaken

The following sections describe the tasks that will be undertaken as part of the EIA process.

- **Project Description**

Further technical and supporting information will be gathered to provide a more detailed project description. This will include a detailed site layout plan that will be compiled once the low – medium areas of sensitivity have been indicated.

- **Location alternatives**

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity. No other properties have at this stage been secured by Filyat 64 CC near Barkly West area to potentially mine Diamonds Alluvial & Diamonds General

- **Activity alternatives**

The Scoping process also needs to consider if the development of an Diamonds Alluvial & Diamonds General mine would be the most appropriate land use for the particular site.

Mining of other commodities – Outstanding rehabilitation was visible on the site, but from the surface and desktop assessment there are no indications that there are other commodities to be mined on the site, Diamonds Alluvial & Diamonds General

Agriculture – Due to the site being non-arable, in terms of crop production, the most of the portions of the property is not preferred. It can however be used for low density cattle crazing and small scale agriculture.

- **Design and layout alternatives**

Design alternatives were considered throughout the planning and design phase (i.e. where is the diamond bearing gravel located?). In this regard discussions on the design were held between the EAP and the developer. The layout follows the limitations of the site and aspects such as, roads, site offices and workshop area as well as fencing– refer **Appendix 3**.

- **No-go alternative**

This alternative considers the option of ‘do nothing’ and maintaining the status quo. The description provided in section H of this report could be considered the baseline conditions (status quo) to persist should the no-go alternative be preferred. The site is currently zoned for mining land uses. Should the proposed activity not proceed, the site will remain unchanged and will continue to be used for low density cattle grazing.

- **Compilation of Environmental Impact Report**

An EIR will be compiled to meet the content requirements as per Appendix 3 of GNR982 of the EIA Regulations (4 December 2014) and will also include a draft Environmental Management Programme containing the aspects contemplated in Appendix 4 of GNR982.

(ix) Measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

ACTIVITY whether listed or not listed. (E.g. Excavations, blasting, stockpiles, discard dumps or dams, Loading, hauling and transport, Water supply dams and boreholes, accommodation, offices, ablution, stores, workshops, processing plant, storm water control, berms, roads, pipelines, power lines, conveyors, etc...etc...etc.).	POTENTIAL IMPACT (e.g. dust, noise, drainage surface disturbance, fly rock, surface water contamination, groundwater contamination, air pollution etc....etc...)	MITIGATION TYPE (modify, remedy, control, or stop) through (e.g. noise control measures, storm-water control, dust control, rehabilitation, design measures, blasting controls, avoidance, relocation, alternative activity etc. etc) E.g. Modify through alternative method. Control through noise control Control through management and monitoring and through rehabilitation..	POTENTIAL FOR RESIDUAL RISK
Impacts on the fauna and flora	Surface disturbance	Monitor through rehabilitation	low
Impacts on the air quality	dust	Dust Control	low
Impacts on the soil	Erosion	Storm water control	low
Impacts associated with the geology of the site	Fly rock	Blasting controls	low
Impacts on ground and surface water	Ground and surface water contamination	Storm water control, avoidance	low
Impacts on visual landscape	dust	Dust control measures	low
Impacts on traffic volumes	dust	Dust control measures	low

I) Other Information required by the competent Authority

i) Compliance with the provisions of sections 24(4)(a) and (b) read with section 24 (3) (a) and (7) of the National Environmental Management Act (Act 107 of 1998). the EIA report must include the:-

(1) Impact on the socio-economic conditions of any directly affected person.

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any directly affected person including the landowner, lawful occupier, or, where applicable, potential beneficiaries of any land restitution claim, attach the investigation report as **Appendix 2.19.1** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

The mining will not impact directly on any socio-economic aspects. Indirect socio-economic benefits are expected to be associated with the creation of employment in the Northern Cape Province.

2) Impact on any national estate referred to in section 3(2) of the National Heritage Resources Act.

(Provide the results of Investigation, assessment, and evaluation of the impact of the mining, bulk sampling or alluvial diamond prospecting on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) with the exception of the national estate contemplated in section 3(2)(j)(vi) and (vii) of that Act, attach the investigation report as **Appendix 2.19.2** and confirm that the applicable mitigation is reflected in 2.5.3; 2.11.6.and 2.12.herein).

The mining will not impact on any heritage estate referred to in section 3(2) of the National Heritage Resources Act. In terms of the National Heritage Resource Act no 25 of 1999. Heritage resources including archaeological and paleontological sites over 100 years old, graves older than 60 years, structure older than 60 years are protected. They may not be disturbed without a permit from the relevant heritage resource Authority, which means that before such sites are disturbed by development it is incumbent on the developer to ensure that a heritage impact assessment is done and the Provincial Heritage Resources Authority and SAHRA will be contacted immediately and work will stop.

m) Other matters required in terms of sections 24(4)(a) and (b) of the Act.

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

From a local perspective Diamonds Alluvial & Diamonds General near Barkly West on Portion 20 (portion of portion 19), Remaining extent of portion 3 (Muirton), Portion 17 (portion of portion 3 Muirton), Portion 15 (portion of portion 3 Muirton), Portion 14 (portion of portion 3 Muirton), Portion 18 (portion of portion 3 Muirton), Portion 16 (Portion of portion 3 Muirton), Portion 21 (portion of portion 19) & Remaining extent of portion 19 of the farm Mosesberg 6; Registration Division Barkly Wes, Northern Cape Province are preferred due to the sites mineral resources. No other properties have been secured by Filyat 64 CC for the purpose of mining. The specific site has been chosen for its mineral resources thus making an alternative site selection null and void.

j) UNDERTAKING REGARDING CORRECTNESS OF INFORMATION

I Danie Labuschagne herewith undertake that the information provided in the foregoing report is correct, and that the comments and inputs from stakeholders and Interested and Affected parties has been correctly recorded in the report.



**Signature of the EAP
DATE: 28-04-2016**

k) UNDERTAKING REGARDING LEVEL OF AGREEMENT

I Danie Labuschagne herewith undertake that the information provided in the foregoing report is correct, and that the level of agreement with interested and Affected Parties and stakeholders has been correctly recorded and reported herein.



**Signature of the EAP
DATE: 28-04-2016**

-END-