MDEDECT Application Form and Acceptance Letter

the dedet

Department:
Economic Development, Environment and Tourism
MPUMALANGA PROVINCIAL GOVERNMENT

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

	(For official use only)
File Reference Number:	
NEAS Reference Number:	
Date Received:	
Responsible Official:	

PROJECT TITLE

Environmental Authorisation for the proposed Yzermyn Underground Coal Mine

Kindly note that:

1. This application form is current as of 2 August 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
3. Where applicable **black out** the boxes that are not applicable in the form.
4. Incomplete applications may be returned to the applicant for revision.
5. The use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.
6. This form must be submitted to the Department at the postal address of the relevant **DISTRICT OFFICE** given below or by delivery thereof to the relevant **DISTRICT OFFICE**. Should the application form not be submitted at the relevant district office, it will not be considered.
7. No faxed or e-mailed applications will be accepted.
8. If the applicant is not the owner or person in control of the land on which the activity is to be undertaken, the written notice of the proposed activity as referred to in Regulation 15, as well as proof of serving such notice on the owner or person in control of the land, must be attached to this form. Should the application form not be accompanied by such notice, it will be rejected.
9. If permission has been granted in terms of Regulation 20(3) to apply S&EIR instead of basic assessment to the application, or if permission has been granted in terms of 20(4) to apply basic assessment instead of S&EIR to the application, a copy of such authorisation must be attached to this application form.
10. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

HEAD OFFICE (13 Jones Street, Nelspruit)	EHLANZENI DISTRICT ([illegible] Street, Nelspruit)	NKANGALA DISTRICT (Pavilion Centre, Cnr Botha & [illegible] Streets, Witbank)	**GERT SIBANDE DISTRICT (13 De Jager Street, Ermelo)**
Attention: Directorate: Environmental Impact Management Private Bag X 11215 Nelspruit [illegible] Queries should be directed to the Directorate: Environmental Impact Management at: Tel: (013) 766 4000 Fax: (013) 766 [illegible]	Attention: Directorate: Environmental Impact Management Private Bag X 11215 Nelspruit [illegible] Queries should be directed to the Directorate: Environmental Impact Management at: Tel: Fax:	Attention: Directorate: Environmental Impact Management P. O. Box 7265 Witbank [illegible] Queries should be directed to the Directorate: Environmental Impact Management at: Tel: Fax:	Attention: Directorate: Environmental Impact Management P. O. Box 2777 Ermelo, 2351 Queries should be directed to the Directorate: Environmental Impact Management at: Tel: Fax:

SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

If there are more than 6, please attach a list with the rest of the numbers.
[illegible]

Refer to Appendix A

PROJECT TITLE

Environmental Authorisation for the proposed Yzermyn Underground Coal Mine

The entire project will entail the following (full detail of the project can also be appended):

Atha-Africa Adventures (Pty) Ltd (Atha) acquired the coal prospecting rights1 to an 8,500 hectare (ha) area located approximately 50 kilometres (km) southwest of Piet Retief in the Mpumalanga Province (Figure 1). The prospecting area comprises 12 privately owned farms, of which Bunengi Mining do not own any surface rights. It has been noted that exploration work has been previously undertaken within the prospecting boundary, although additional exploration activities (infill drilling) will be required in order to develop a mine plan for the proposed Yzermyn Underground Coal Mine. Mindset Mining Consultants (Pty) Ltd (Mindset) has been appointed to lead the project planning and develop a mining rights application process (including a mining works programme).

WSP Environment and Energy (WSP) has been appointed by Bunengi Mining to undertake a comprehensive social and environmental impact assessment (SEIA) for the proposed mine. The SEIA will be undertaken in three phases – namely the prefeasibility phase, scoping phase and the environmental impact assessment phase. This document details the findings of the prefeasibility phase of the project. WSP will undertake all project phases in accordance with relevant South African legislation (the Minerals and Petroleum Resources Development Act (No. 28 of 2002), National Environmental Management Act (No. 107 of 1998), and associated relevant legislation2) and the International Finance Corporation (IFC) Performance Standards. The SEIA will need to be authorised by the Department of Mineral Resources (DMR) and the Mpumalanga Department of Economic Development, Environment and Tourism (DEDET), and will need to be accepted by the IFC.

Please note that additional information will be included in the Scoping Report. Furthermore, it is understood that authorisation will be required in accordance with the Minerals and Petroleum Resources Development Act (No. 28 of 2002) of which WSP is in communication with.

1. BACKGROUND INFORMATION

Project applicant:	Atha Group Plc		
Trading name (if any):	Atha-Africa Ventures (Pty) Ltd		
Contact person:	Hemen Bhagawati		
Physical address:	8th Floor, Sinosteel Plaza, 159 Rivonia Road, Morningside, Sandton, 2148		
Postal address:	8th Floor, Sinosteel Plaza, 159 Rivonia Road, Morningside, Sandton		
Postal code:	2146	**Cell:**	+27 74 529 8486/ +27 84 941 7465 (South Africa)
Telephone:	+27 11 784 1885 (South Africa) +91 33 401 18400 (India) + 91 98 3668 9800 (India)	**Fax:**	+27 11 784 7467 (South Africa) +91 33 401 18401 (India)
E-mail:	h.bhagawati@athamines.com		

[1] The prospecting rights were previously held by BHPBilliton, Ingwe Colliery and transferred to Bunengi Mining in 2011.

[2] Including, but not limited to: National Environmental Management Waste Act (No. 59 of 2008), National Environmental Management Biodiversity Act (No. 10 of 2004), National Environmental Management Air Quality Act (No.39 of 2004), Mine Health and Safety Act (No. 29 of 1996), National Water Act (No. 36 of 1998), National Road Traffic Act (No. 93 of 1996), National Heritage Resources Act (No. 25 of 1999), Conservation of Agricultural Resources Act (No. 43 of 1998), etc.

Environmental Assessment Practitioner:	WSP Environment and Energy		
Contact person:	Brent Holme		
Postal address:	PO Box 5385, Rivonia		
Postal code:	2021	**Cell:**	+27 83 518 2386
Telephone:	+27 11 361 1398	**Fax:**	+27 86 532 8685
E-mail:	Brent.holme@wspgroup.co.za		
Qualifications & relevant experience	BSc Geography and Environmental Management (University of Johannesburg, 2007)	BSc Hons (Geography) (University of Johannesburg, 2007)	More than five year's experience in the environmental consulting industry
Professional affiliation(s) (if any)	N/A		

Landowner:	**Refer to Appendix B**		
Contact person:			
Postal address:			
Postal code:		**Cell:**	
Telephone:		**Fax:**	
E-mail:			

In instances where there is more than one landowner, please attach a list of landowners with their contact details to this application.

District Municipality in whose jurisdiction the proposed activity will fall (Delete which is not applicable):	Ehlanzeni	Nkangala	**Gert Sibande ✓**

Local authority in whose jurisdiction the proposed activity will fall:	Pixley Ka Seme Local Municipality		
Nearest town:	Dirkiesdorp		
Contact person:	Lungile Sikhosana		
Postal address:	Private Bag X9011, Volksrust		
Postal code:	2470	**Cell:**	
Telephone:	017 734 6313	**Fax:**	
E-mail:	lungile@pixlekaseme.co.za		

In instances where there is more than one local authority involved, please attach a list of local authorities with their contact details to this application.

Property description/physical address:	**Refer to Appendix A**

(Farm name, portion, registration division etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

Current land-use zoning:	Unimproved Natural Grassland Grazing Cultivated Farming

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Locality map:

A locality map must be attached to this document. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used). The scale must be indicated on the map. The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality **GPS co-ordinates** (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	**Activity No (s) (in terms of the relevant notice) :**	**Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice)[3]:**
NEMA, GNR.544 of 2010	Activity 2	The construction of facilities or infrastructure for the storage of ore or coal that requires an atmospheric emissions license in terms of the NEM:AQA.
	Activity 9	The construction of facilities or infrastructure exceeding 1000m in length for the bulk transportation of water, sewage or stormwater I. With an internal diameter of 0.36m or more; or II. With a peak throughput of 120 litres per second or more.
	Activity 10	The construction of facilities or infrastructure for the transmission and distribution of electricity (i) outside urban areas or industrial complexes with a capacity more than 33 but less than 275 kilovolts.
	Activity 11	The construction of canals, channels, dams, weirs, bulk stormwater outlet structures, buildings exceeding 50m^2 or structures covering more than 50m^2 – where such a construction occurs within 32m of a watercourse.
	Activity 12	The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000m^3 or more, unless the storage falls within the ambit of GNR.545, Activity 19.
	Activity 13	The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80, but nor exceeding 500m^3.
	Activity 22	The construction of a road, outside urban areas, (i) where the road reserve is wider than 13.5m, or (ii) where no road exists where the road is wider than 8m.
	Activity 23	The transformation of undeveloped land to industrial use, outside an urban area – where the total area to be transformed is greater than 5ha but less than 20ha.
	Activity 23	The transformation of land bigger than 1000m^2 to industrial use, where the land use was zoned as open space, conservation or had equivalent zoning.
	Activity 26	Any process or activity identified in terms of Section 53(1) of the NEM:BA.
	Activity 53	The expansion of railways, stations or shunting yards where there will be an increased development footprint.
NEMA: GNR.545 of 2010	Activity 3	The construction of facilities or infrastructure for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500m^3.
	Activity 5	The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.

[3] Please note that this description should not be a repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

	Activity 6	The construction of facilities or infrastructure for the bulk transportation of dangerous goods in solid form, outside of an industrial complex, using conveyors with a throughput capacity of more than 50 tons per day.
	Activity 8	The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of more than 275 kilovolts.
	Activity 15	Physical alteration of undeveloped land for industrial use where the total area to be transformed in greater than 20ha.
	Activity 18	The route determination and design of associated physical infrastructure, including (i) national roads as defined in Section 40 of the South African National Roads Agency Limited and National Roads Act (No. 7 of 1998), (ii) roads administered by provincial authorities, (iii) road reserve is greater than 30m, or (iv) the road will cater for more than one lane of traffic in both directions.
	Activity 19	The construction of a dam, where the highest part of the dam wall is 5m or higher, or where the high-water mark of the dam covers an area of 10ha or more.
	Activity 20	Any activity which requires a mining right contemplated in Section 22 of the MPRDA.
NEMA: GNR.546 of 2010,	Activity 2	The construction of reservoirs for bulk water supply with a capacity of more than 250m^3.
	Activity 4	The construction of a road wider than 4m with a road reserve less than 13.5m.
	Activity 12	The clearance of an area of 300m^2 or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.
	Activity 16	The construction of buildings with a footprint exceeding 10m^2 in size; or infrastructure covering 10m^2 or more.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

3. TYPE OF APPLICATION

3.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the Regulations)? YES | **NO ✓**

Please indicate when the basic assessment report will be submitted:

3.2 Application for Scoping and Environmental Impact Assessment (S&EIR)

Is this an application for Scoping and EIR (as defined in the Regulations)? **YES ✓** | NO

Please indicate when the Scoping Report (including the Plan of Study for EIA) will be submitted:

End 2012 (December 2012)

4.2 The Environmental Assessment Practitioner

I, **Brent Holme** declare that -

General declaration:

- I act as the independent environmental practitioner in this application
- I act independently
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act; and
- I will adhere to and comply with all responsibilities as indicated in the National Environmental Management Act and Environmental Impact Assessment.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

- I have a vested interest in the proposed activity proceeding, such vested interest being:

.....

.....

.....

Signature of the environmental assessment practitioner:

WSP Environment & Energy

Name of company:

26/7/2012

Date:

Signature of Commissioner of Oaths

26/7/2012

Date:

CA (SA)

Designation:

Official stamp (below)

COMMISSIONER OF OATHS
Johan Janse van Rensburg CA (SA)
Commissioner of Oaths (RSA)
8 Orchard Avenue, Bordeaux
Randburg 2194, South Africa

4. DECLARATIONS

4.1 The Applicant

I, **Hemen Bhagawati** MORGAN MUNSAMY declare that I -

- am, or represent[4], the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application / will obtain exemption from the requirement to obtain an environmental assessment practitioner[5];
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to –
  - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
  - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
  - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
  - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant[6]/ Signature on behalf of the applicant:

ATHA - AFRICA VENTURES (PTY) LTD

Name of company (if applicable):

7-8-2012

Date:

Signature of Commissioner of Oaths

7/8/2012

Date:

CA (SA)

Designation:

Official stamp (below)

COMMISSIONER OF OATHS
Johan Janse van Rensburg CA (SA)
Commissioner of Oaths (RSA)
8 Orchard Avenue, Bordeaux
Randburg 2194, South Africa

[4] If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.
[5] If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.
[6] If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

Appendix A – Affected Farm Information

FARM	PORTION	REG DIV	PROVINCE	EXTENT(Ha)	SG CODE
BLOEMHOF 92	THE FARM	HT	MPUMALANGA	329.0882	T0HT00000000009200000
GOEDGEVONDEN 95	THE FARM	HT	MPUMALANGA	739.4455	T0HT00000000009500000
KROMHOEK 93	THE FARM	HT	MPUMALANGA	1184.728	T0HT00000000009300000
NAUWGEVONDEN 110	PORTION 1	HT	MPUMALANGA	428.266	T0HT00000000011000001
PAARDEKOP 109	THE FARM	HT	MPUMALANGA	400.0447	T0HT00000000010900000
UITZICHT 108	THE FARM	HT	MPUMALANGA	691.3141	T0HT00000000010800000
VANDER WALTSPOORT 81	PORTION 2	HT	MPUMALANGA	1064.4525	T0HT00000000008100001
VANDER WALTSPOORT 81	REMAIN EXTENT	HT	MPUMALANGA	1022.9803	T0HT00000000008100002
VIRGINIA 91	THE FARM	HT	MPUMALANGA	925.4029	T0HT00000000009100000
YZERMYN 96	PORTION 1	HT	MPUMALANGA	193.8289	T0HT00000000009600001
YZERMYN 96	REMAIN EXTENT	HT	MPUMALANGA	826.1608	T0HT00000000009600000
ZOETFONTEIN 94	THE FARM	HT	MPUMALANGA	553.8079	T0HT00000000009400000

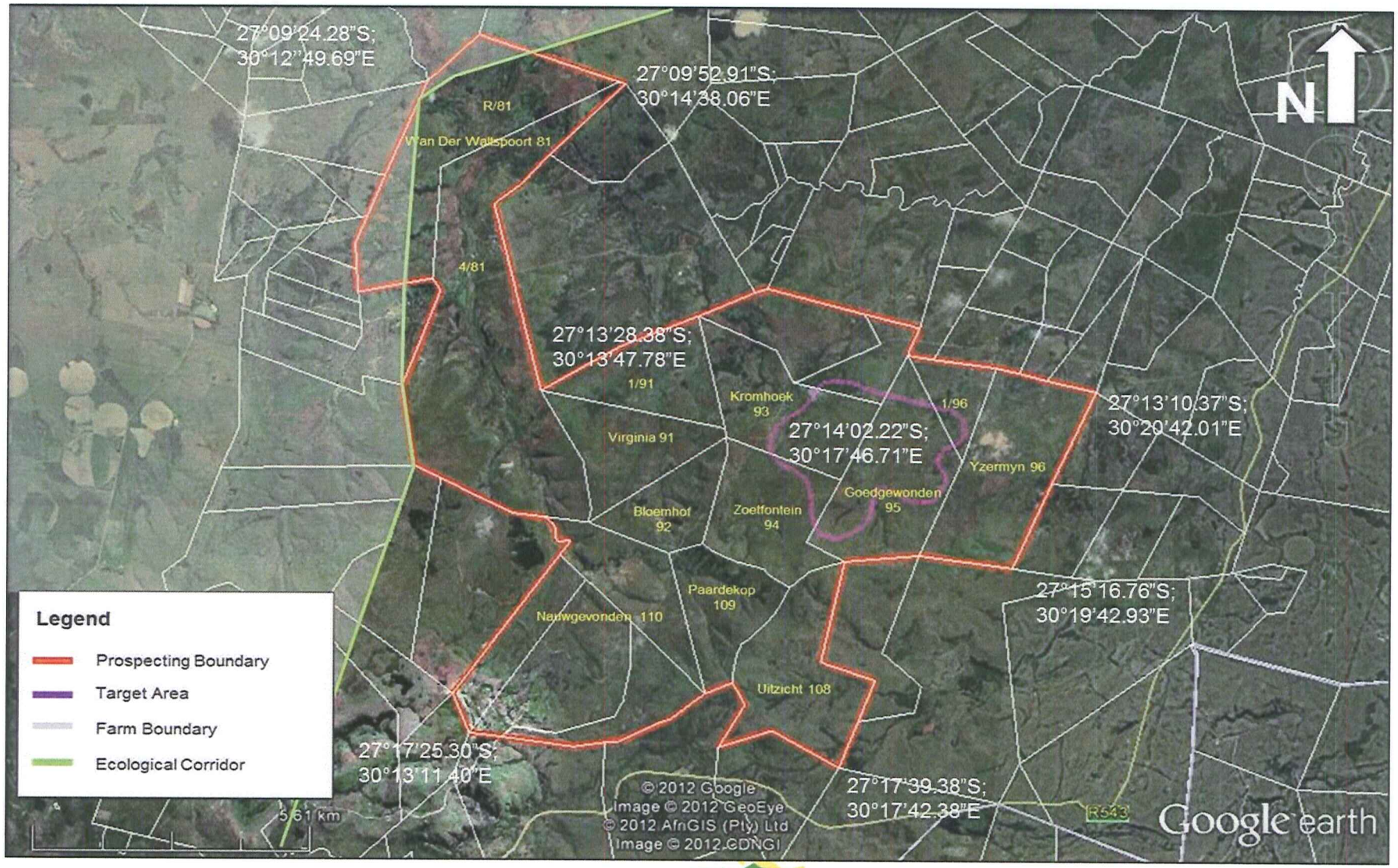
Appendix B – Landowner Details

Landowner	Properties
Mr Johan Uys Tel: 27 17 732 3571 Cell: 27 82 725 4862 Fax: 27 17 735 3571 Email: bloemhof1@lantic.net	Farm Goedgevonden 92
	Farm Kromhoek 93
	Farm Yzermyn 96
	Farm Bloemhof 92
	Farm Nauwgevonden 110
	Farm Paardekop109
	Farm Virginia 91
	Farm Yzermyn 96
	Farm Zoetfontein 94
	Farm Vander Waltspoort 81
Mr BP Greyling Tel: Cell: Fax: Email:	Farm Uitzicht 108

Locality Maps

1:50 000 Topographical Map

Satellite Image



MDEDECT Acceptance Letter

MPUMALANGA PROVINCIAL GOVERNMENT

Building No. 4
No. 7 Government Boulevard
Riverside Park Extension 2
Nelspruit
1200
South Africa

Private Bag X 11215
Nelspruit, 1200
Tel: 013 766 4004
Fax: 013 766 4614
Int: +27 13 766 4004
Int: +27 13 766 4614

Department of Economic Development, Environment and Tourism

Litiko Letekutfutfukiswa Kwetemnotfo, Simondzwo netekuVakasha
Umngango WezokuThuthukiswa KoMnotho, iBhoduluko nezamaVakatjho
Departement van Ekonomiese Ontwikkeling, Omgewing en Toerisme

Enquiries: Nelisiwe Mlangeni 13 De Jager Street, Ermelo, 2350, Tel :(017) 811 4830/3944
Reference: 17/2/3 GS-131

Atha Group Plc
159 Rivonia Road
Morningside
Sandton
2148

Email: h.bhagawati@athamines.com

Dear Madam/Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED DEVELOPMENT OF VARIOUS LISTED ACTIVITIES AT YZERMYN UNDERGROUND COALMINE, ON VARIOUS PORTIONS AND FARMS, PIXLEY KA SEME LOCAL MUNICIPALITY, MPUMALANGA PROVINCE.

The Department confirms having received the application form for environmental authorisation of the abovementioned project 13 August2012. The application is hereby accepted, and you may proceed with the process required in terms of the Environmental Impact Assessment Regulations, 2010.

The application has been assigned the reference number **17/2/3 GS 131**. Kindly quote this reference number in any future correspondence in respect of the application and in all methods of notification used during the public participation process.

The responsible officer is **Miss. Nelisiwe Mlangeni** and all correspondence must be directed to: The Deputy Director, Environmental Impact Management, Gert Sibande District Office, marked for the attention of the responsible officer.

Please note that in terms of the provisions of Regulation 67, this application will lapse if the applicant fails for a period of 6 months to comply with a requirement of the EIA Regulations, 2010, or if reasons for failure to comply are not communicated in writing to and accepted by this Department.

Please draw the applicant's attention to the fact that the activity may not commence prior to an environmental authorisation being granted by the Department.

Sincerely,

_____ _____

Director: Environmental Impact Management **Date**

cc: Brent Holme WSP Environment and Energy Fax: 086 532 8685

MPUMALANGA
A Pioneering Spirit

Mining Right Application

ATHA AFRICA VENTURES (PTY) LTD

MINING WORKS 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 DEVELOPMENTS ACT (ACT 28 OF 2002)

DATED: JANUARY 2013

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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

The Applicant, Atha Africa Ventures (Pty) Ltd (Atha)'s details are indicated in **Table 1**.

TABLE 1: APPLICANT PARTICULARS

ITEM	COMPANY CONTACT DETAILS
Name	Atha Africa Ventures (Pty) Ltd
Registration Number	2004/020746/07
Contact Person Name	Morgam Munsamy
Telephone Number	+27 11 784 1885 (South Africa) +91 33 401 18400 (India)
Facsimile Number	+27 11 784 7467 (South Africa) +91 33 401 18401 (India)
Cellular Number	+27 83 655 5362
Email Address	morgam.munsamy@athagroup.in
Postal Address	8th Floor Sinosteel Plaza 159 Rivonia Road Morningside Sandton 2148

Attachment 1 contains the following documentation:

- Certified copy of certification of incorporation
- Certified copy of the certificate to commence business
- Certified copy of the resolution if acting in a representative capacity for the company

Mindset Mining Consultants (Pty) Ltd (Mindset), whose details are indicated in **Table 2**, assisted Atha in its application process.

TABLE 2: CONSULTANT PARTICULARS

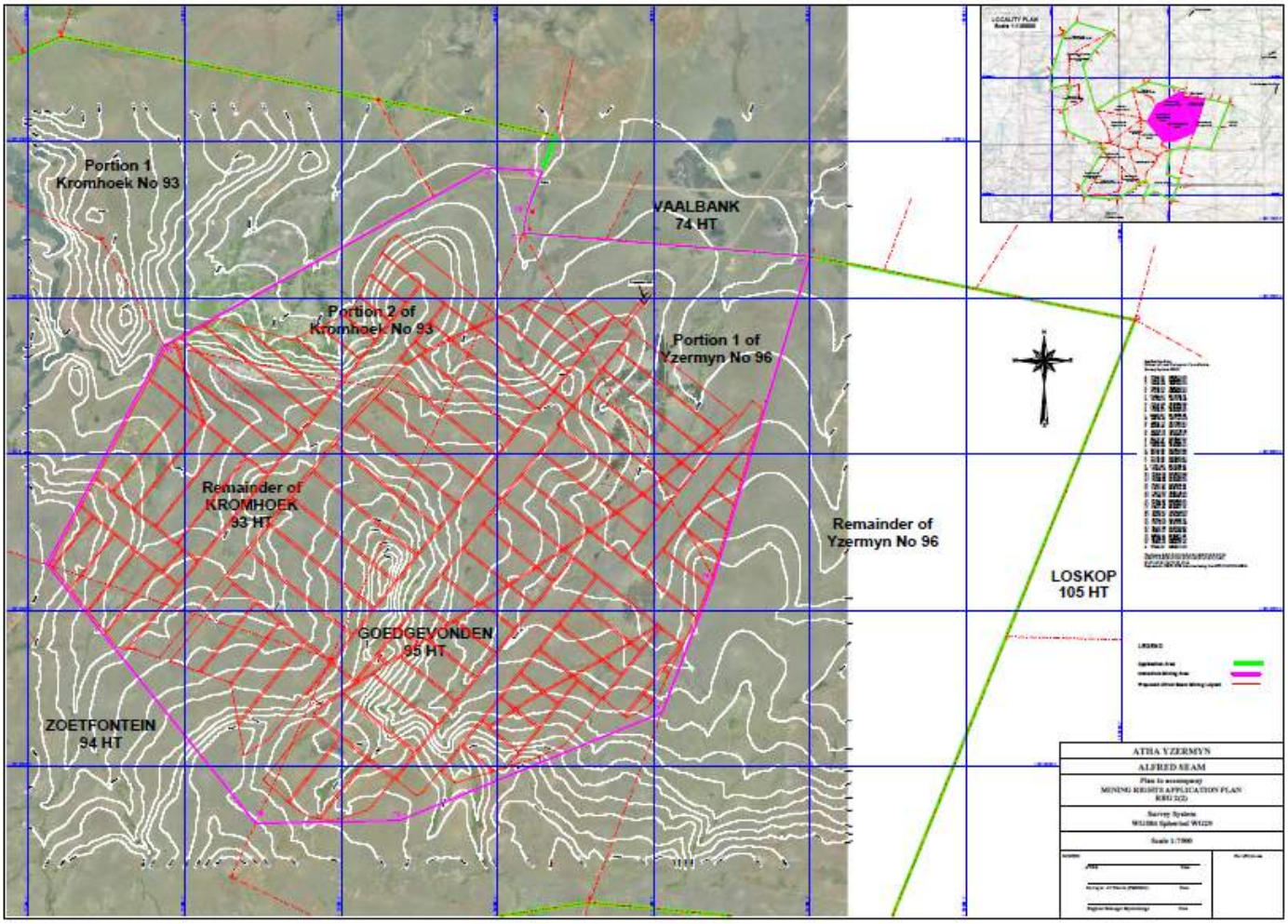
ITEM	CONSULTANT CONTACT DETAILS
Name	Mindset Mining Consultants (Pty) Ltd
Registration Number	2010/018539/07
Contact Person	Piet van der Linde
Telephone Number	+27 12 347 3152
Facsimile Number	+27 86 671 1235
Cellular Number	+27 82 373 9866
Email Address	piet@mindsetcoal.co.za
Postal Address	Postnet Suite 504 Private Bag X1 The Willows South Africa 0041

2. REGULATION 11 (1) (B): PLAN SHOWING THE LAND AND MINING AREA

The plans provided below, indicate the Mining Right Application Area in relation to the Target Area, which has been fully explored. Further exploration in the remainder of the area will commence once the mine is in operation in order to extend the resource base.

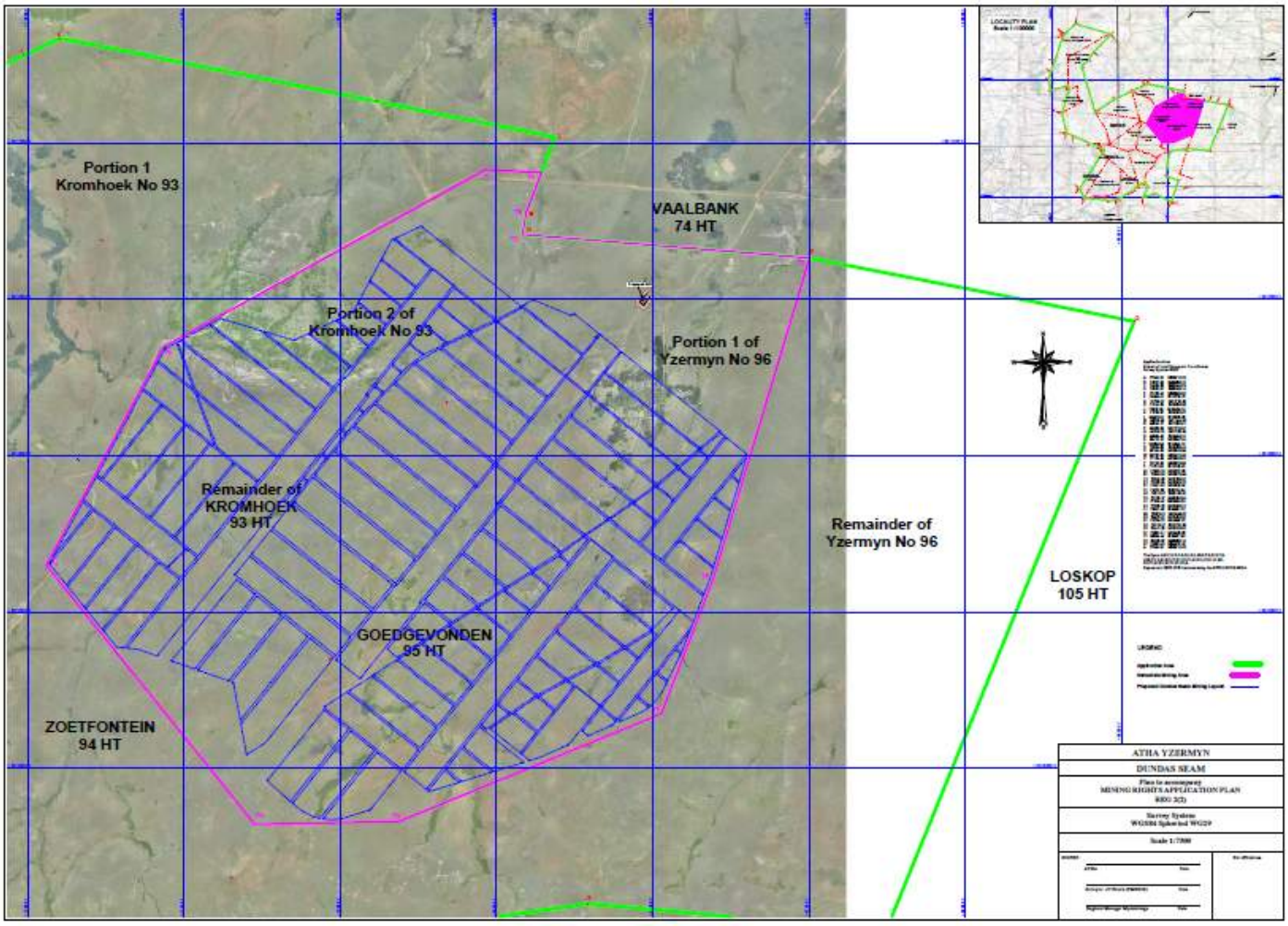
It will be noted that the mine design has been based on recommended geotechnical design parameters and the two seam panel designs are virtually overlain over each other.

MAP 1: REGULATION 2 (2) PLAN ALFRED SEAM



the dme
Department:
Minerals and Energy
REPUBLIC OF SOUTH AFRICA

MAP 2: REGULATION 2 (2) PLAN DUNDAS SEAM



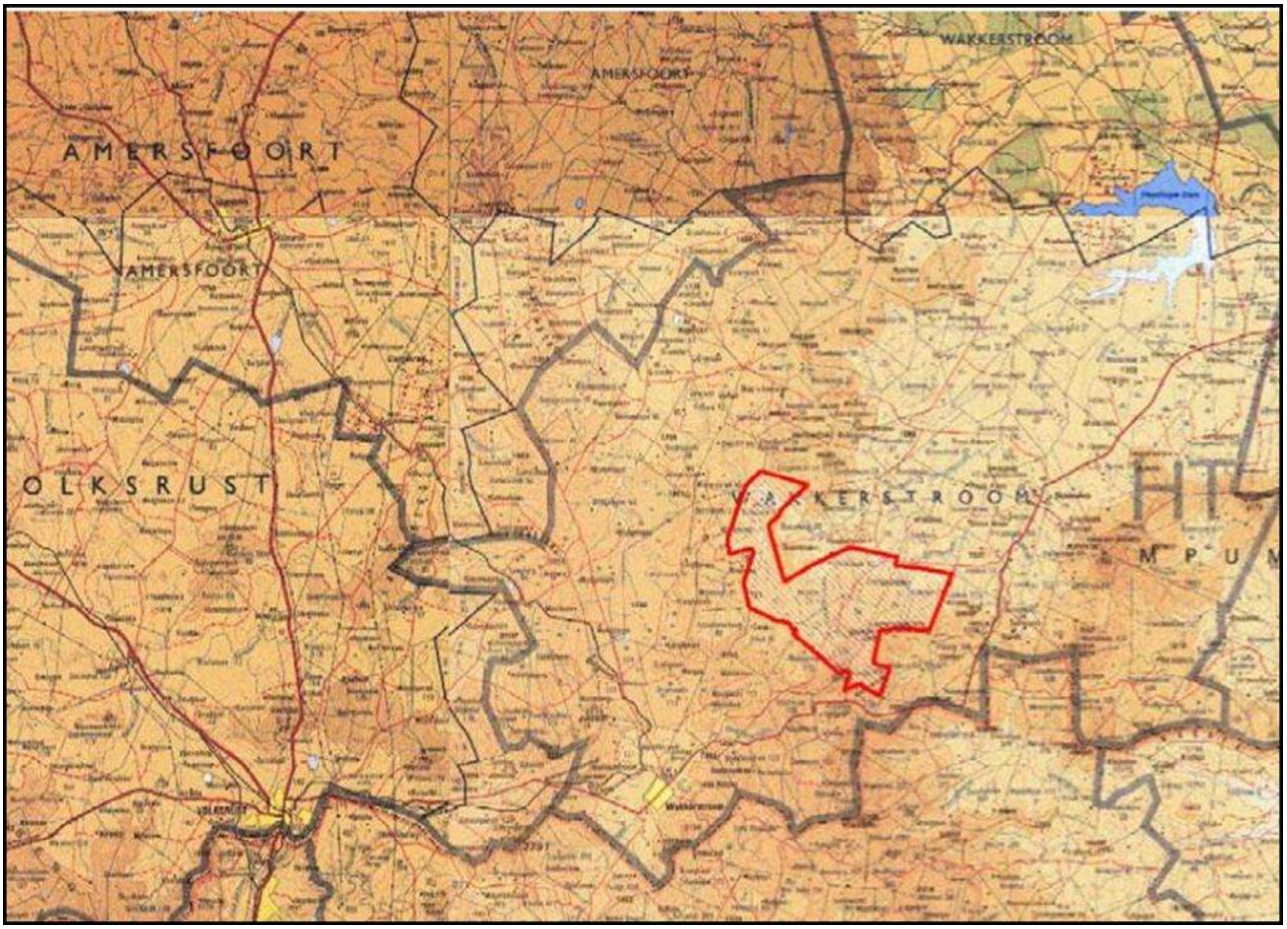
3. REGULATION 11 (1) (C): REGISTERED DESCRIPTION OF THE LAND OR AREA

A certified copy of the title deed in respect of the land to which the application relates, is included with this document as **Attachment 2**.

The Project Area is situated in the Dirkiesdorp district of the Mpumalanga province of South Africa. The Area lies approximately 58 kilometres (km) South West of Piet Retief.

The Piet Retief siding can be accessed primarily by gravel road from the town of Dirkiesdorp, which is currently being utilised by Jindal Mining SA. This siding is not fully utilized at present and The Client is recommended to utilise the siding as it is served with a tarred provincial road from Dirkiesdorp to Piet Retief.

MAP 3: PROJECT LOCALITY



The Project Area consists of 10 farms, covering 8,360 hectare (ha), of which the Target Area has been explored to a classification level of Indicated. The remainder of the Project Area requires considerable further exploration. The farms identified for the Project area is reflected in **Table 3**.

The first round of exploration was concentrated on Yzermyn 96, Goedgevonden 95 and Kromhoek 93. Further exploration will be targeted at the remainder of the Prospecting Rights Area.

TABLE 3: PROJECT AREA FARM DETAILS

FARM	PORTION	REG DIV	PROVINCE	EXTENT (Ha)	PROJECT
BLOEMHOF 92	THE FARM	HT	MPUMALANGA	329.0882	YZERMYN
GOEDGEVONDEN 95	THE FARM	HT	MPUMALANGA	739.4455	YZERMYN
KROMHOEK 93	THE FARM	HT	MPUMALANGA	1184.728	YZERMYN
NAUWGEVONDEN 110	PORTION 1	HT	MPUMALANGA	428.266	YZERMYN
PAARDEKOP 109	THE FARM	HT	MPUMALANGA	400.0447	YZERMYN
UITZICHT 108	THE FARM	HT	MPUMALANGA	691.3141	YZERMYN
VAN DER WALTSPOORT 81	PORTION 2	HT	MPUMALANGA	1064.4525	YZERMYN
VAN DER WALTSPOORT 81	REMAIN EXTENT	HT	MPUMALANGA	1022.9803	YZERMYN
VIRGINIA 91	THE FARM	HT	MPUMALANGA	925.4029	YZERMYN
YZERMYN 96	PORTION 1	HT	MPUMALANGA	193.8289	YZERMYN
YZERMYN 96	REMAIN EXTENT	HT	MPUMALANGA	826.1608	YZERMYN
ZOETFONTEIN 94	THE FARM	HT	MPUMALANGA	553.8079	YZERMYN

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

4.1. RESOURCE PARTICULARS

TABLE 4: RESOURCE PARTICULARS

ITEM	DETAIL
Type of Mineral	Coal
Locality (Direction and distance to nearest town)	Piet Retief 58km North East Dirkiesdorp 13km North East-East Wakkerstroom 21km South West
Extent of the Area required for Mining	1,567ha
Extent of the Area required for Infrastructure, Roads, Servitudes, etc.	10ha
Depth of the Minerals below Surface	Average 177.445
Geological Formation	South Africa's coal resources are restricted to the area east of the longitude 26°E and are hosted by the Late Carboniferous to middle-Jurassic sedimentary deposits of the Karoo Supergroup (320-180 Ma). Within the main Karoo Basin, coal is hosted in the Vryheid Formation of the Ecca Group, where rank increases eastwards, as well as in the Emakwezini Formation of the Beaufort Group. In the Eastern Cape, the Molteno Formation hosts coal deposits, with rank increasing to the southeast. South Africa is host to 19 coalfields, which encompass a total area of about 9.7M (million) hectares. The largest of these coalfields by coal reserves are the Highveld and Witbank coalfields, followed by Ermelo and Waterberg where bituminous coal predominates. South Africa's coal seams are characteristically thin and are found at relatively shallow depths and extraction is thus easier and often more economical. The following coal seams characterize the Utrecht Coalfield: – Coking Seam (< 1.5m, good quality) – Dundas Seam (2m mixed dull, bright and shaly coal) – Gus Seam (well-developed, economically most important, 1m in South, split by a sandstone parting in north) – Alfred Seam (persistent, 3 to 4m south of Utrecht, bright to dull-lustrous coal (Spurr9), Eland Seam) In the Utrecht Coalfield, the seams have been a major source of moderately good coking coal and require little beneficiation. The Lower Dundas Seam rank varies from medium volatile bituminous to anthracitic, with the coal mined as a source of bituminous coal in the North Eastern sector of the coalfield and as anthracite in the southern sector. However, the sulphur content can be high, in excess of 1%. The Gus Seam is subdivided into three coal quality zones with the upper part comprising mainly dull coal, the central part predominantly bright coal and the bottom section mainly poor quality coal with shale partings. The seam has elevated methane gas concentration. The Alfred Seam is of better quality in the Utrecht Coalfield, particularly towards the bottom portion of the seam. The seam is generally high in ash and sulphur content, but beneficiation can produce relatively high quality, low ash coal with low sulphur and phosphor. The coal seams are correlated to the Utrecht and Natal Coalfields successions and the

	following seams, in sedimentary succession were identified during the exploration phase: – Torbanite Seam – Eland Seam – Alfred Seam – Economic Gus Seam – Dundas Seam – Economic Targus Seam Of these seams, only the Alfred and Dundas are of economic significance with seam thicknesses exceeding 1.2m and with suitable qualities.

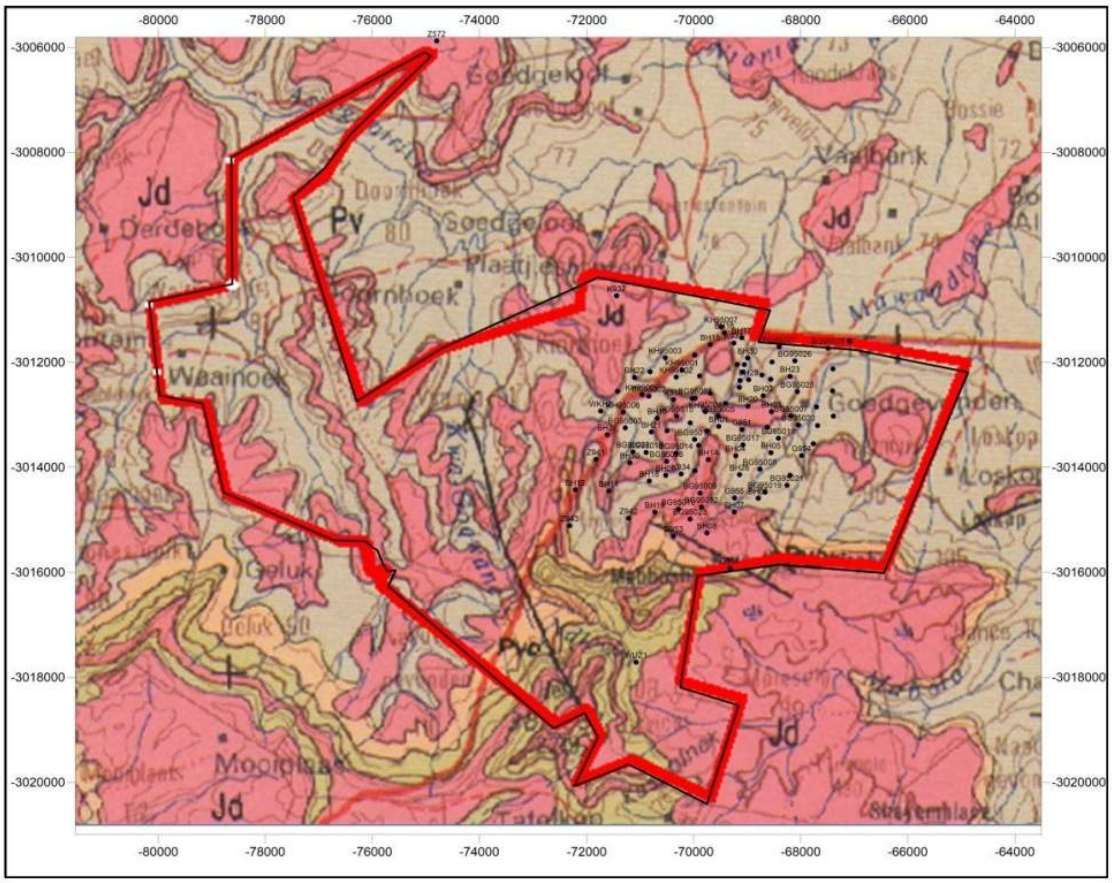
4.2. DETAIL OF PERSON WHO COMPILED THE RESOURCE STATEMENT

TABLE 5: COMPILATION OF RESOURCE STATEMENT

ITEM	DETAILS
Name	Mr Petrus Cornelius (Peet) Meyer
Qualification/s	BSc Honours in Geology Mr PC Meyer, the author of this Report, is a member of the South African Geological Society and registered with the South African Council for Natural and Scientific Professionals, a Recognised Overseas Professional Organisation (ROPO), included in a list promulgated by several Security Exchanges worldwide, including the ASX and TSX.
Profession	Geologist
Experience	Mr Meyer has sufficient experience, which is relevant to the styles of mineralisation and types of deposits under consideration. He possesses sufficient expertise to be deemed a Competent Person, as defined in the 2004 Edition of the Australian Code of Reporting of Exploration, Mineral Resources and Ore Reserves (JORC Code) and the 2007 South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code).
Professional Body(if registered)	SACNASP Council for Geosciences
Registration number (if applicable)	SACNASP: Reg. No. 400025/03 Council for Geosciences No. 39627

4.3. LOCALITY SPECIFIC GEOLOGICAL MAP

MAP 4: GEOLOGICAL MAP IN COLOUR



4.4. EXPLORATION RESULTS

Table 6 below details the borehole positions of all exploration holes.

TABLE 6: BOREHOLE DATA

BH ID	Y	X	Elevation	EOBH	OLD BHID	BH OUTSIDE PR AREA
N11001	73444.76	3016498.5	1702.61	539.5	N11001	
N11003	75106	3038779	1679	361.8	N11003	OUTSIDE PR
N11004	73729.42	3017448.5	1742.54	480.67	N11004	
V8101	78287.45	3006648.8	1492.3	169.47	V8101	OUTSIDE PR
V8102	78409.39	3008465.2	1499.01	274.02	V8102	
V8103	76605.53	3011836.4	1680.67	363.32	V8103	
V8104	75592.71	3013861.6	1694.69	374.9	V8104	
V8105	76429.51	3006167	1665.43	305.71	V8105	OUTSIDE PR
V8106	78532.15	3013071.2	1676.7	404.16	V8106	
V8107	76562.78	3014103.1	1560	53.55	V8107	
V8108	77533.87	3013112.5	1580	68.79	V8108	
V8109	77306.47	3010864.2	1520	79.32	V8109	
V8110	77080.55	3007358.7	1470	72.78	V8110	
V8111	76220.78	3012500.9	1681.58	293.95	V8111	OUTSIDE PR
V8112	78347.1	3009140.9	1510.89	160.88	V8112	
V8113	79926.96	3011544.5	1543.57	130.87	V8113	
V8114	79842.39	3011723	1565.47	28.9	V8114	
V8115	78867.71	3011767.5	1565.55	130.86	V8115	
W13	56757.18	3018936.8	1656.52	66.2	W13	OUTSIDE PR
W14	56144.65	3020070.8	1653.61	151	W14	OUTSIDE PR
W15	56261.12	3021033.6	1663.24	57	W15	OUTSIDE PR
WK1	70664.4	3012192.5	1584	34.85	WK1	
WUZ1	71058.78	3017414	1940	569.8	WUZ1	
B921	74162.11	3015076.3	1707.18	425.19	B921	
B922	72823.05	3014870.2	1772.18	435.55	B922	
WUZ2	70112.97	3019823.6	1840	463.49	WUZ2	
BH001	69975.275	3012683.2	1600.4042	169.6	BG95001	
BH002	70841.32	3012643.5	1570.27	127.02	BG95002	
BH003	71284.05	3013247.3	1581.08	160.51	BG95003	
BH005	69548.23	3013025.1	1611.59	220.55	BG95005	
BH006	70512.24	3013886.1	1610.02	258	BG95006	
BH007	68185.42	3013020.2	1504.27	208.68	BG95007	
BH008	68765.84	3014035.2	1533.43	238.8	BG95008	
BH009	69885.09	3014491.7	1724.94	355.65	BG95009	
BH010	70289.44	3014798.8	1727.06	342.2	BG95010	
BH011	68420.91	3013446	1517	149.93	BG95011	
BH012	69858.91	3014755	1697.7856	306.21	BG95012	
BH013	69987.341	3013468.4	1679.97	190.6	BG95013	
BH014	70334.14	3013731.5	1647.64	219.95	BG95014	
BH015	70325.5	3013024.8	1623.39	241.45	BG95015	
BH017	69084.27	3013571.5	1587.74	220.6	BG95017	
BH018	70892.66	3013716.7	1604.73	235.8	BG95018	
BH019	68672.79	3014473.9	1573.63	226.97	BG95019	
BH020	68047.94	3013192.7	1483.49	153.92	BG95020	
BH021	68260.65	3014340.9	1551.62	220.2	BG95021	
BH022	71138.71	3013705.1	1592.35	190.4	BG95022	
BH023	70073.07	3014984.9	1723.43	336.97	BG95023	
BH024	67492.83	3011731.4	1456.98	61.6	BG95025	OUTSIDE PR
BH025	68112.26	3011971.2	1488.04	70	BG95026	
BH026	68407.74	3011703.4	1461.19	1471.7	BG95027	OUTSIDE PR
BH027	68068.5	3012558.1	1481.62	112.6	BG95028	
BH030	69102.03	3013280.5	1590.47	547.73	G951	
BH031	70380.43	3015309.5	1763.05	632.46	G953	
BH032	67986.73	3013775.9	1497.25	217.63	G954	

BH ID	Y	X	Elevation	EOBH	OLD BHID	BH OUTSIDE PR AREA
BH033	69241.09	3014583.4	1574.43	330.4	G955	
BH034	69326.16	3015916.3	1766.67	445.88	G956	
BH035	70379.45	3012708.5	1597.51	371.86	K931	
BH036	71445.48	3010732.4	1560.58	423.67	K932	
BH037	69254.23	3011632.4	1489.91	683	K933	
BH038	70237.72	3014127.4	1650.21	683	K934	
BH039	70223.15	3012147.5	1463.71	37.36	KH95001	
BH040	70331.62	3012281.2	1485.89	57.65	KH95002	
BH041	70534.79	3011912.4	1469.21	36.81	KH95003	
BH042	69786.73	3012940.2	1619.47	217.25	KH95004	
BH043	70967.16	3012614.4	1549.8	117.68	KH95005	
BH044	71320.81	3012949.7	1574.23	150.45	KH95006	
BH045	69487.75	3011325.2	1446.86	30.97	KH95007	
BH046	71741.92	3012927.5	1571.59	136.42	WKH2	
BH047	71080.72	3017711.4	1940	569.8	WUZ1	
BH048	73623.89	3004152.4	1729.73	473.66	Z571	OUTSIDE PR
BH049	74797.82	3005877.3	1710.23	405.38	Z572	OUTSIDE PR
BH050	75439.18	3004342.9	1695.6	363.02	Z573	OUTSIDE PR
BH051	71831.14	3013847.8	1670.11	317.8	Z941	
BH052	71219.71	3014970.4	1707.18	467.26	Z942	
BH053	72321.04	3015110.7	1743.65	401	Z943	
BH054A	69466.69	3013185.3	1636.21	250.28	BH01	
BH055	68704.19	3012636.3	1550.09	215.98	BH02	
BH056	68551.31	3012939.1	1573.97	241.44	BH03	
BH057	69219.19	3013778.6	1590.75	258.03	BH04	
BH058	68560.5	3013721.5	1521.91	207.03	BH05	
BH059	68797.34	3014589.7	1596.04	279.05	BH06	
BH062	70528.19	3014152.8	1651.11	245.3	BH09	
BH063	71196.94	3013914.2	1605.59	245.3	BH10	
BH066	70683.06	3013065.7	1592.33	240.02	BH13	
BH068	69694.7	3011661.4	1476	78.1	BH15	
BH069	69428.32	3011438.3	1461.47	179.38	BH16	
BH070	69106.76	3011532.3	1465.01	119.3	BH17	
BH073	68990.88	3012834.5	1588.97	255.02	BH20	
BH074	70795.22	3013325.5	1578.63	193.03	BH21	
BH075	71110.27	3012289.1	1541.1	150.03	BH22	
BH076	68204.57	3012267.4	1518.83	203.5	BH23	
BH079	69147	3014138.6	1574.38	207.07	BH26	
BH080	71618.07	3013377.8	1651.8	236.33	BH27	
BH082	68976.48	3012330.5	1481.81	141	BH29	
BH083	68995.78	3011917.7	1462.18	96.03		
BH084	68203.1	3014149.8	1538.98	176.33		
BH085	68629.98	3013236.4	1538.65	240		
BH086	69138.38	3012344.1	1491.63	105.09		
BH087	68540.04	3011992.1	1471.46	83.33		
BH088	69191.27	3012040.3	1487.89	93.07		
BH089	70819.61	3012179.1	1508.91	84.1		
BH090	69986.84	3011861.9	1449.09	89.3		
BH092	70501.15	3013302.4	1644.6	282.03		
BH093	68564.8	3012321.8	1504.42	144		
BH094	69087.4	3012183.8	1470.38	84.1		
BH095	69405.31	3012783.5	1586.82	201		
BH096	69894.39	3012260	1497.97	96.1		
BH097	70069.31	3013154.2	1654.34	261.13		
BH098	70032.03	3012692.5	1604.27	204.05		
BH099	69150.27	3012477.1	1514.95	132.07		
BH100	69695.18	3012591.6	1599.76	207.1		
BH101	69753.13	3013306.5	1682.69	249.1		
BH102	69912.12	3013581.3	1704.89	308.35		
BH103	69979.67	3014063.4	1694.66	312.1		

BH ID	Y	X	Elevation	EOBH	OLD BHID	BH OUTSIDE PR AREA
BH106	71426.33	3012553.8	1536.3	53.98		
BH107	67409.15	3012542.6	1468.29	83.3		
BH108	67393.33	3013025.5	1490.08	129		
BH109	67400.5	3012123.8	1450.07	50.31		
BH110	67709.21	3012849.3	1469.65	98.98		
BH112	67766.39	3013550.3	1511.52	147		
BH113	67688.71	3013204.8	1488.94	126		
BH115	68729.21	3012241.9	1474.25	90.1		
BH116	69056.94	3012043	1465.45	69.01		

The table below lists the Farms with the amount of boreholes drilled on each site.

TABLE 7: FARMS AND COMPANIES CONDUCTING EXPLORATION

AGENCY	SERIES	NO. OF BOREHOLES	
Kromhoek	V series	12	
Other party	N series	2	
Other party	B Series	2	
Kromhoek	WK1	1	
Kromhoek	G series	5	
Kromhoek	K series	5	
Kromhoek	WKH series	1	
Kromhoek	WUZ series	2	
Ingwe	Z series	3	
Bunengi	KH Series	7	
TOTAL	BG	23	
Atha Africa	(HISTORICAL)	63	
TOTAL	BH Series	48	
In addition 12 holes that lies outside the PRA are available (W-series, 3 of VSeries.	BOREHOLES	12	
	Database Boreholes	123	
	72 Holes have raw and wash data		

4.5. PROSPECTING RIGHT

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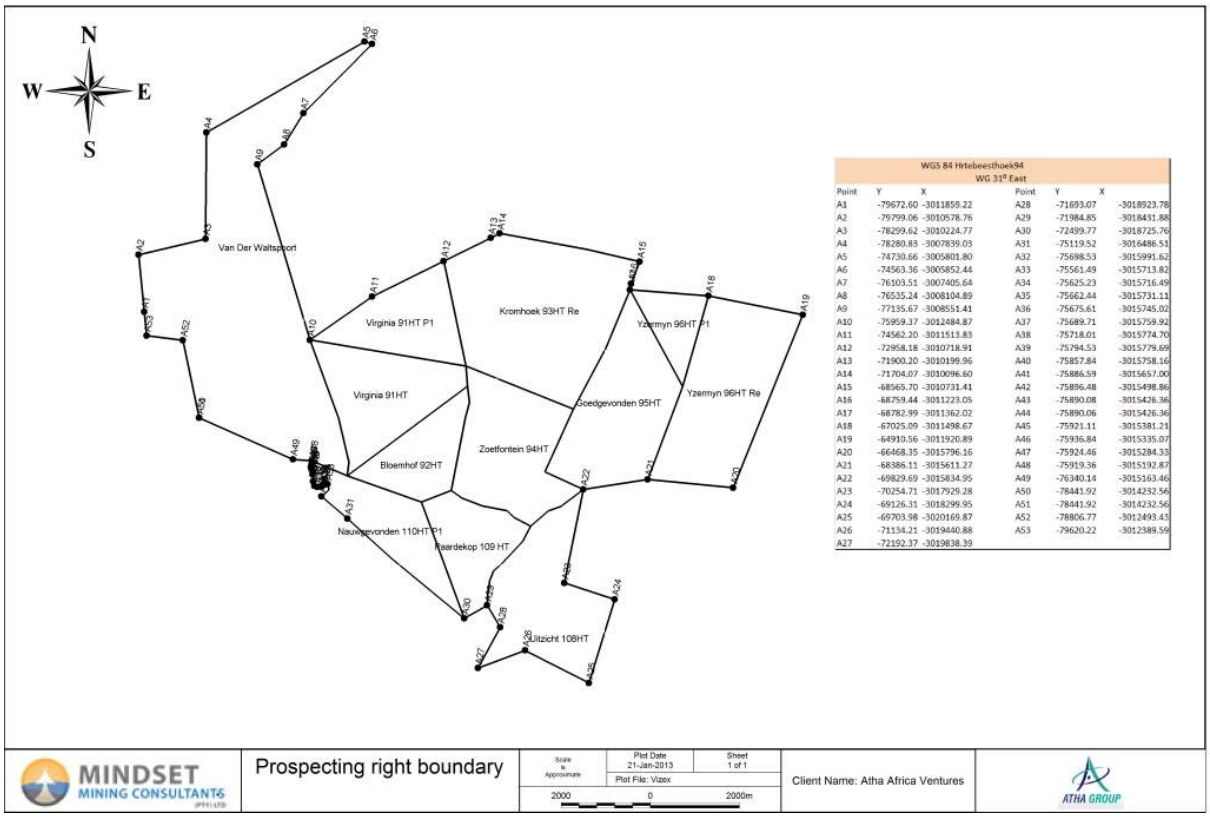
"Initially Ingwe Collieries Limited (Ingwe) was holding the Prospecting Right No. MP30/5/1/1/2/215 PR. In terms of Section 11(1) of MPRDA 2002 (Act 28 of 2002), they ceded the Prospecting Right to Bunengi Investment Holdings (Pty) Limited vide DME letter dated 18/10/2007. Bunengi Investment Holdings (Pty) Limited transferred the prospecting right to Bunengi Mining Services (Pty) Limited vide DMR letter dated 20/06/2011. Further, under Section 11(1) of MPRDA 2002 (Act 28 of 2002) the name of the Prospecting right holding company then was transferred from Bunengi Mining Services (Pty) Ltd to Atha Africa Ventures (PTY) Ltd."

The Prospecting Right expired on 16 August 2011. It was timeously renewed however, with the Renewed Prospecting Right dated 09 December 2011. This Prospecting Right expires on 16 August 2014, with The Client intending to apply for a Mining Right well in advance of the deadline.

MAP 5: PROSPECTING RIGHT BOUNDARY POINTS

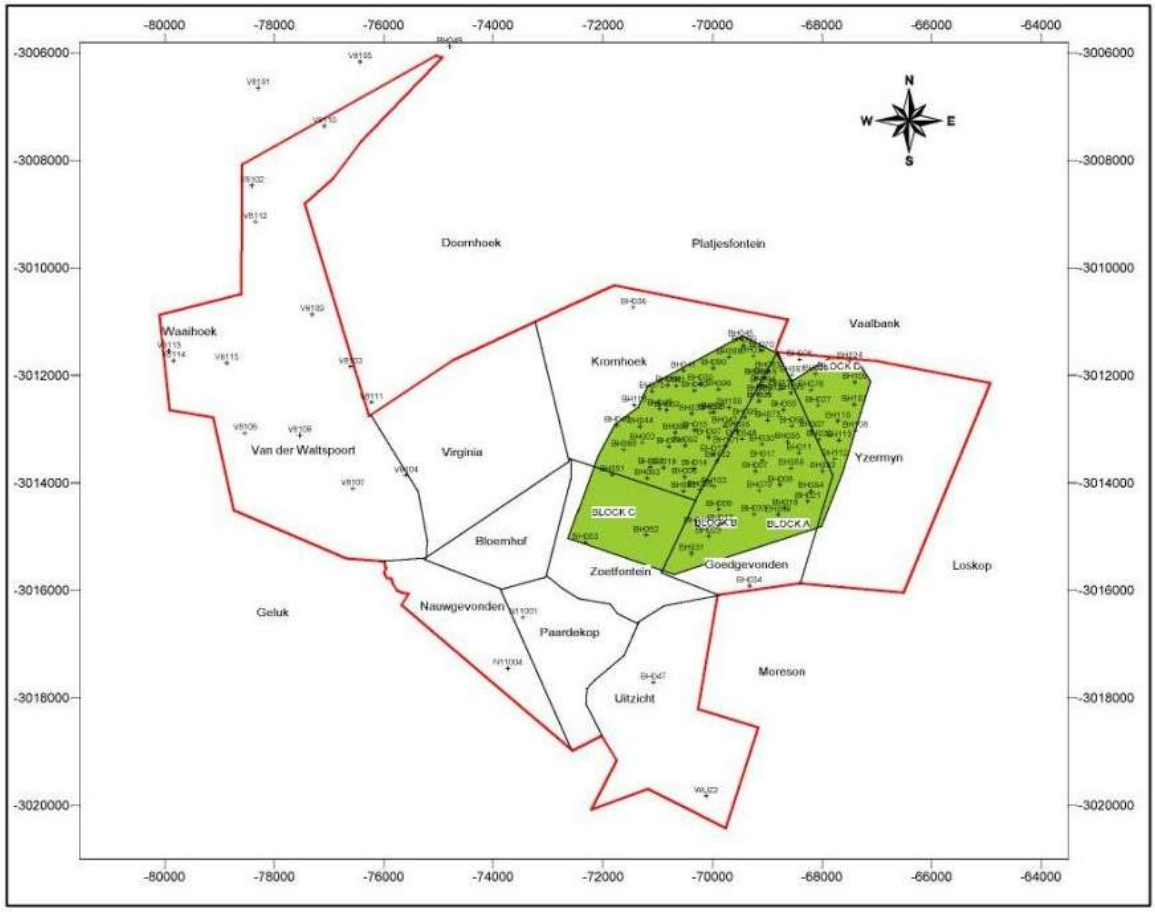


WGS 84 Hrtebeesthoek94 WG 31° East					
Point	Y	X	Point	Y	X
A1	-79672.60	-3011859.22	A28	-71693.07	-3018923.78
A2	-79799.06	-3010578.76	A29	-71984.85	-3018431.88
A3	-78299.62	-3010224.77	A30	-72499.77	-3018725.76
A4	-78280.83	-3007839.03	A31	-75119.52	-3016486.51
A5	-74730.66	-3005801.80	A32	-75698.53	-3015991.62
A6	-74563.36	-3005852.44	A33	-75561.49	-3015713.82
A7	-76103.51	-3007405.64	A34	-75625.23	-3015716.49
A8	-76535.24	-3008104.89	A35	-75662.44	-3015731.11
A9	-77135.67	-3008551.41	A36	-75675.61	-3015745.02
A10	-75959.37	-3012484.87	A37	-75689.71	-3015759.92
A11	-74562.20	-3011513.83	A38	-75718.01	-3015774.70
A12	-72958.18	-3010718.91	A39	-75794.53	-3015779.69
A13	-71900.20	-3010199.96	A40	-75857.84	-3015758.16
A14	-71704.07	-3010096.60	A41	-75886.59	-3015657.00
A15	-68565.70	-3010731.41	A42	-75896.48	-3015498.86
A16	-68759.44	-3011223.05	A43	-75890.08	-3015426.36
A17	-68782.99	-3011362.02	A44	-75890.06	-3015426.36
A18	-67025.09	-3011498.67	A45	-75921.11	-3015381.21
A19	-64910.56	-3011920.89	A46	-75936.84	-3015335.07
A20	-66468.35	-3015796.16	A47	-75924.46	-3015284.33
A21	-68386.11	-3015611.27	A48	-75919.36	-3015192.87
A22	-69829.69	-3015834.95	A49	-76340.14	-3015163.46
A23	-70254.71	-3017929.28	A50	-78441.92	-3014232.56
A24	-69126.31	-3018299.95	A51	-78441.92	-3014232.56
A25	-69703.98	-3020169.87	A52	-78806.77	-3012493.43
A26	-71134.21	-3019440.88	A53	-79620.22	-3012389.59
A27	-72192.37	-3019838.39			

4.6. MINERAL RESOURCE MAP

Map 6 indicates the Mineral Resources based on the current exploration results.

MAP 6: MINERAL RESOURCES MAP IN COLOUR



4.6.1. ALFRED SEAM

The Alfred Seam in the Target Area is mineable over the total width of the coal seam, with an average seam height of 1.68m.

The raw air-dried calorific value (CV) of the Alfred Seam in the Project Area is varied, with the highest qualities, generally in the North West, reaching 26.5MJ/kg. The CV decrease to the East to a minimum of 22.0MJ/kg.

The volatile matter (VM) content of the coal within the Target Area is critical to the delineation of the resource, as coal is devolatilised in several areas. A raw air-dried VM cut-off of 18.0% was applied in defining the target Area.

The average VM for the Target Area is 19.74%, with a maximum of 22.5% .The practical yield of the coal for a typical RB1 specification coal (27.0MJ/kg) averages 63% over the Target Area with a maximum of 75% in the North West of the Target Area and decreasing to 59% in the East of the resource block.

FIGURE 1: ALFRED SEAM ASH

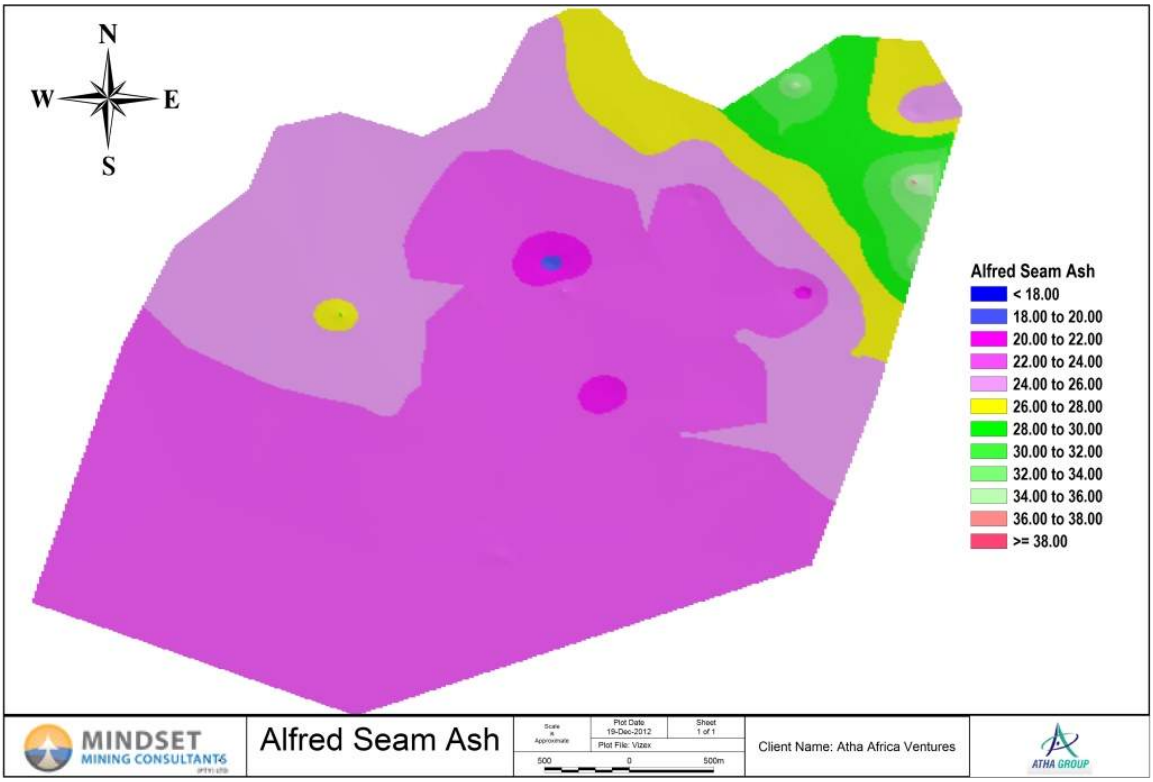


FIGURE 2: ALFRED SEAM CALORIFIC VALUE

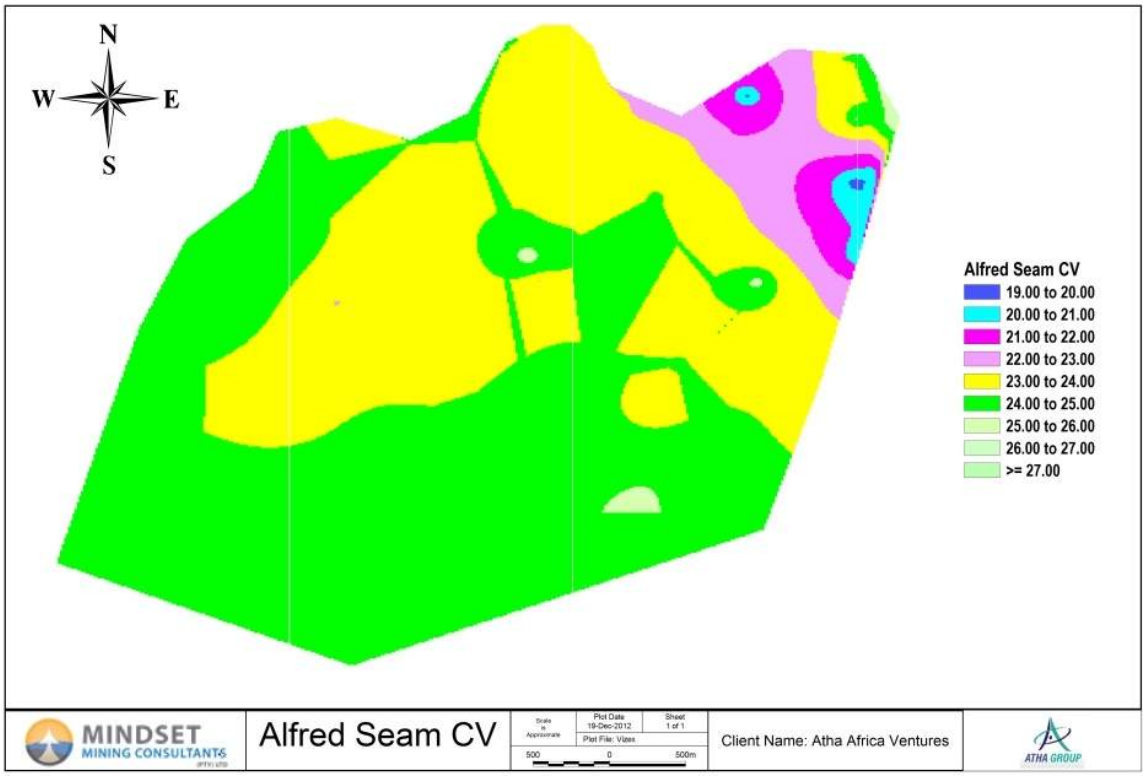


FIGURE 3: ALFRED SEAM FIXED CARBON

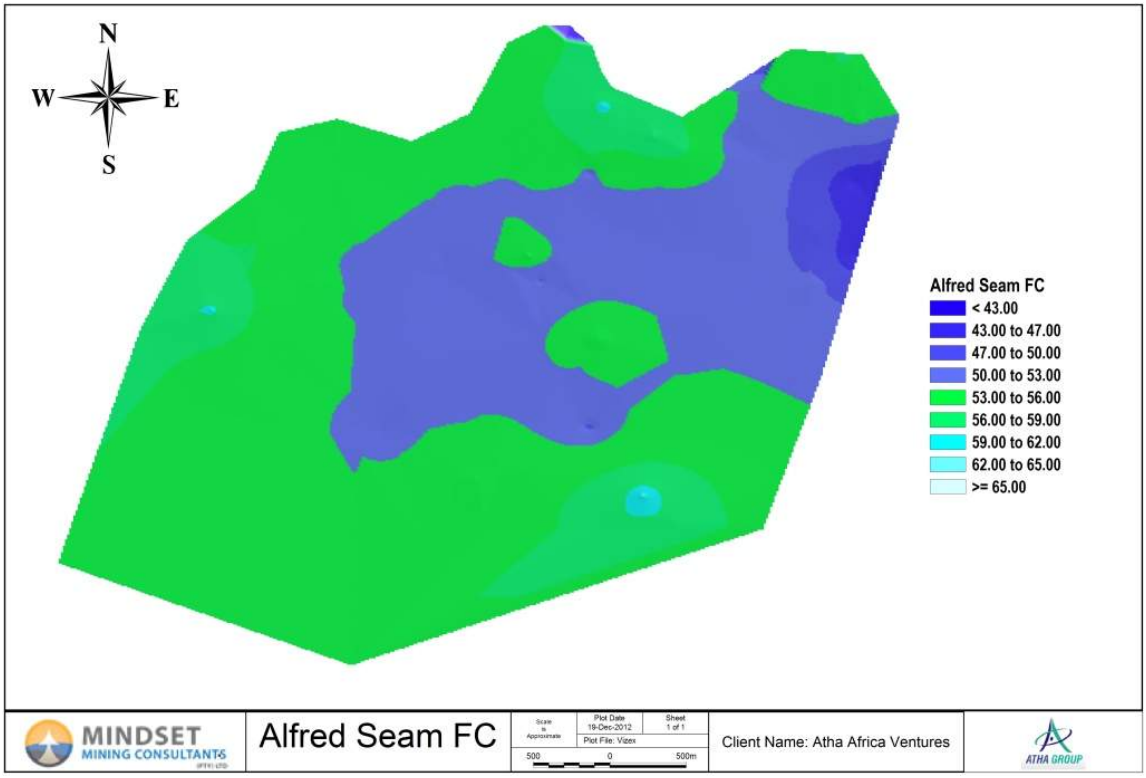


FIGURE 4: ALFRED SEAM INHERENT MOISTURE

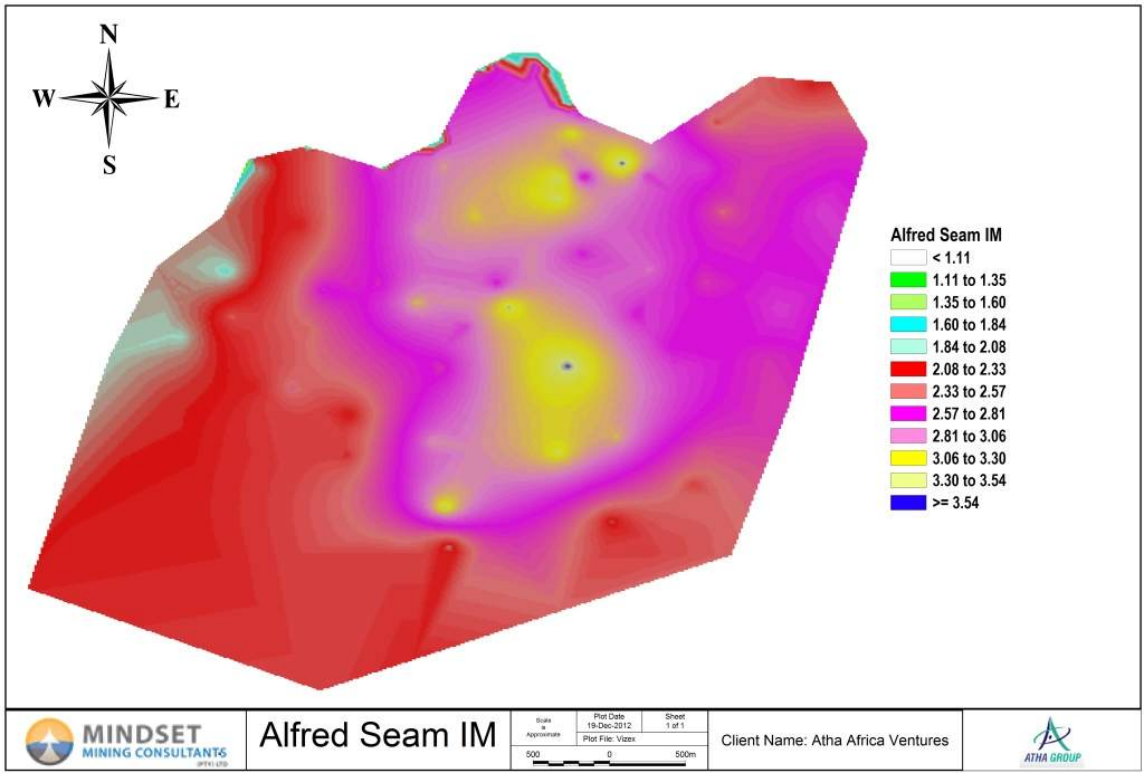


FIGURE 5: ALFRED SEAM RELATIVE DENSITY

FIGURE 6: ALFRED SEAM TOTAL SULPHUR

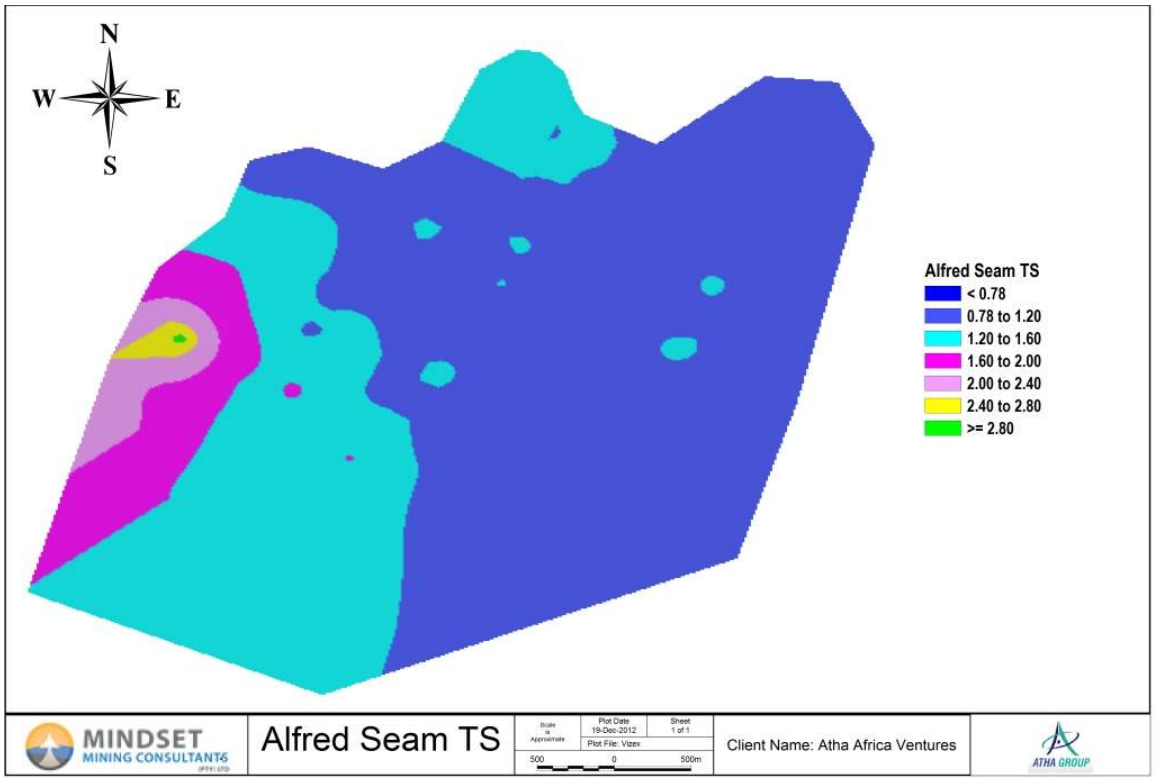


FIGURE 7: ALFRED SEAM VOLATILE MATTER

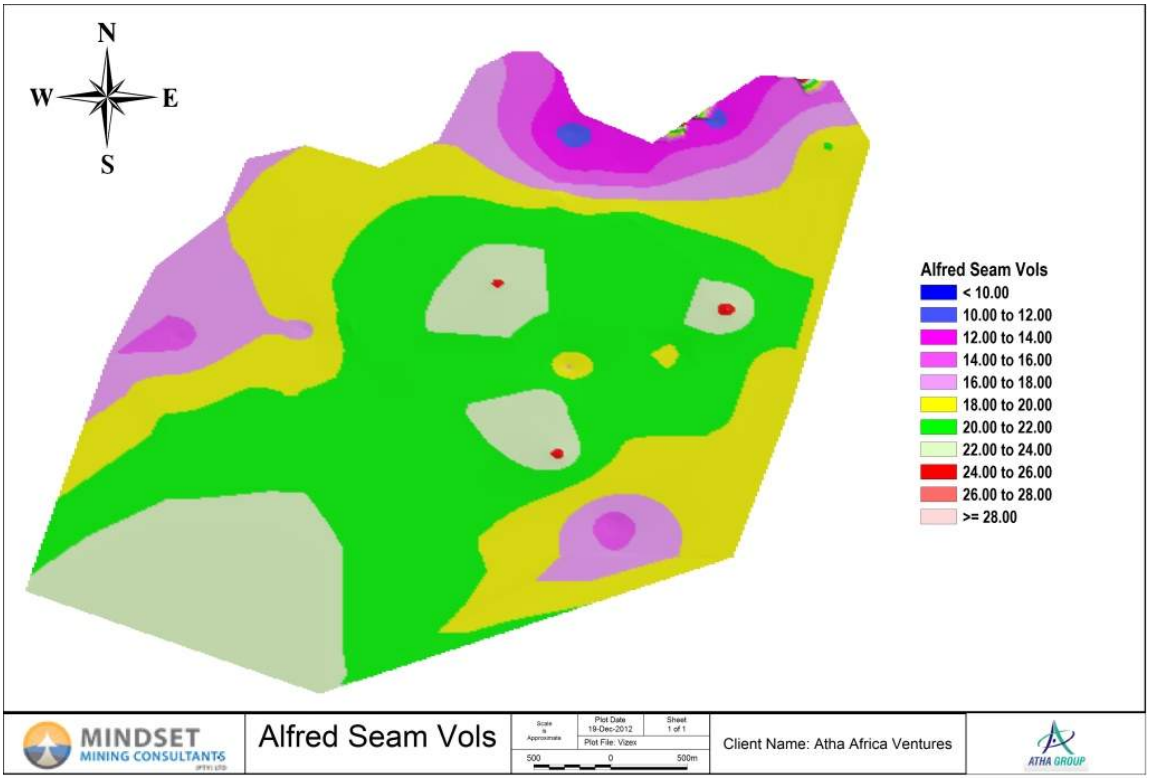
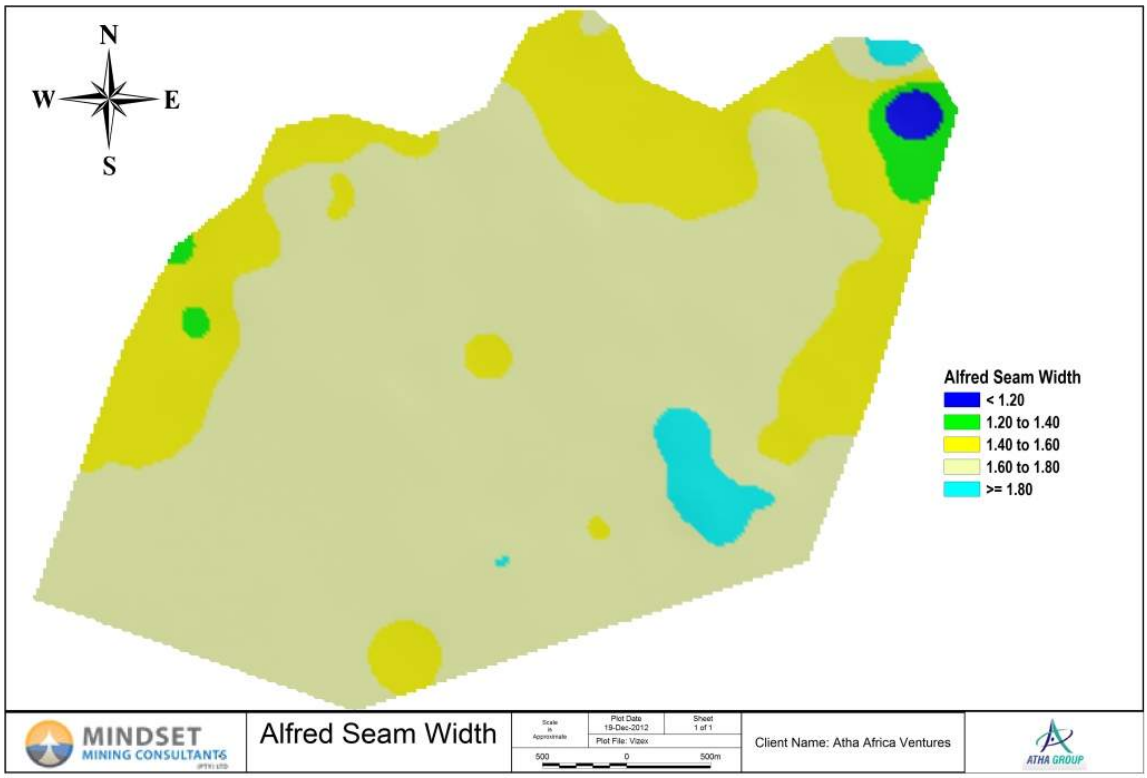


FIGURE 8: ALFRED SEAM WIDTH



4.6.2. DUNDAS SEAM

The Dundas Seam in the Target Area is mineable over the total width of the coal seam, with an average seam height of 1.64m. Localised thinning of the seam was identified in the East of the Target Area with a thickness of 1.20m in one borehole.

The raw air-dried CV of the Dundas Seam in the Project Area is varied, with the highest qualities, generally in the North, reaching 27.8MJ/kg. The CV decreases to the South to a minimum of 24.3MJ/kg.

The VM content of the coal within the Target Area is critical to the delineation of the resource, as coal is devolatilised in several areas. A raw air-dried VM cut-off of 18.0% was applied in defining the Target Area. The average VM for the Target Area is 20.1%, with a maximum of 22.5%.

The practical yield of the coal for a typical RB1 specification coal (27.0MJ/kg) averages 65.2% over the Target Area, with a maximum of 75% in the North West of the Target Area and decreasing to 58% in the East of the resource block.

FIGURE 9: DUNDAS SEAM ASH

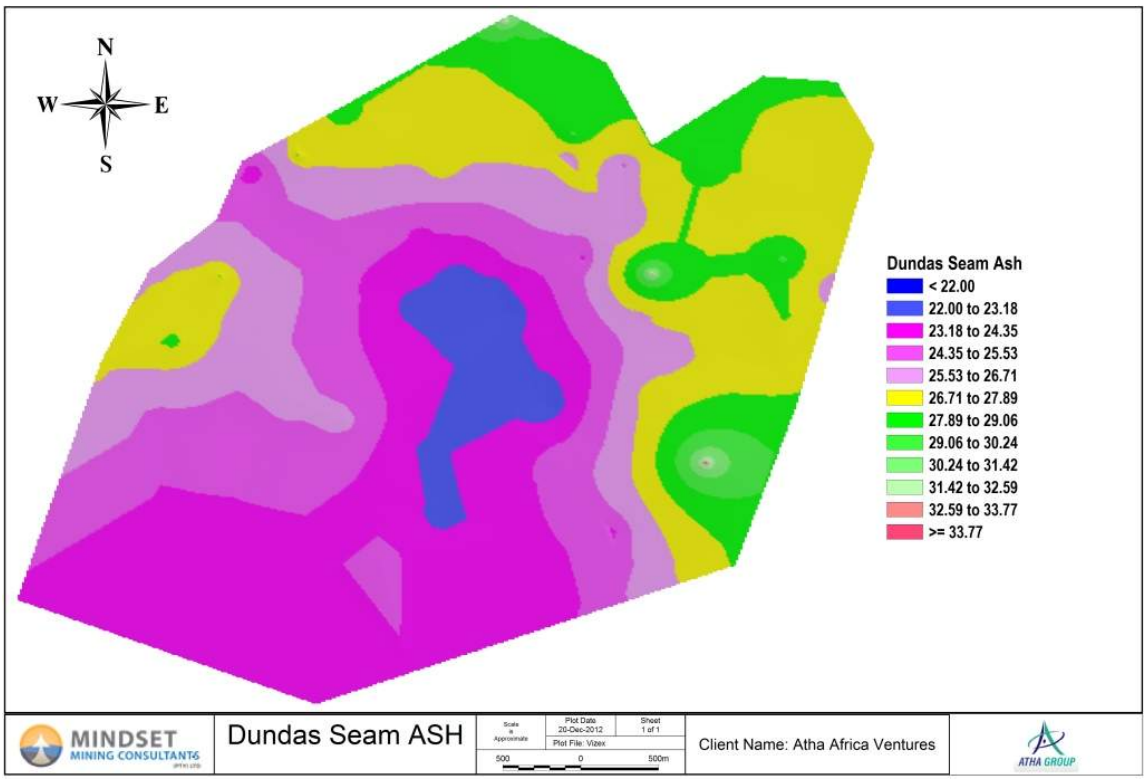


FIGURE 10: DUNDAS SEAM CALORIFIC VALUE

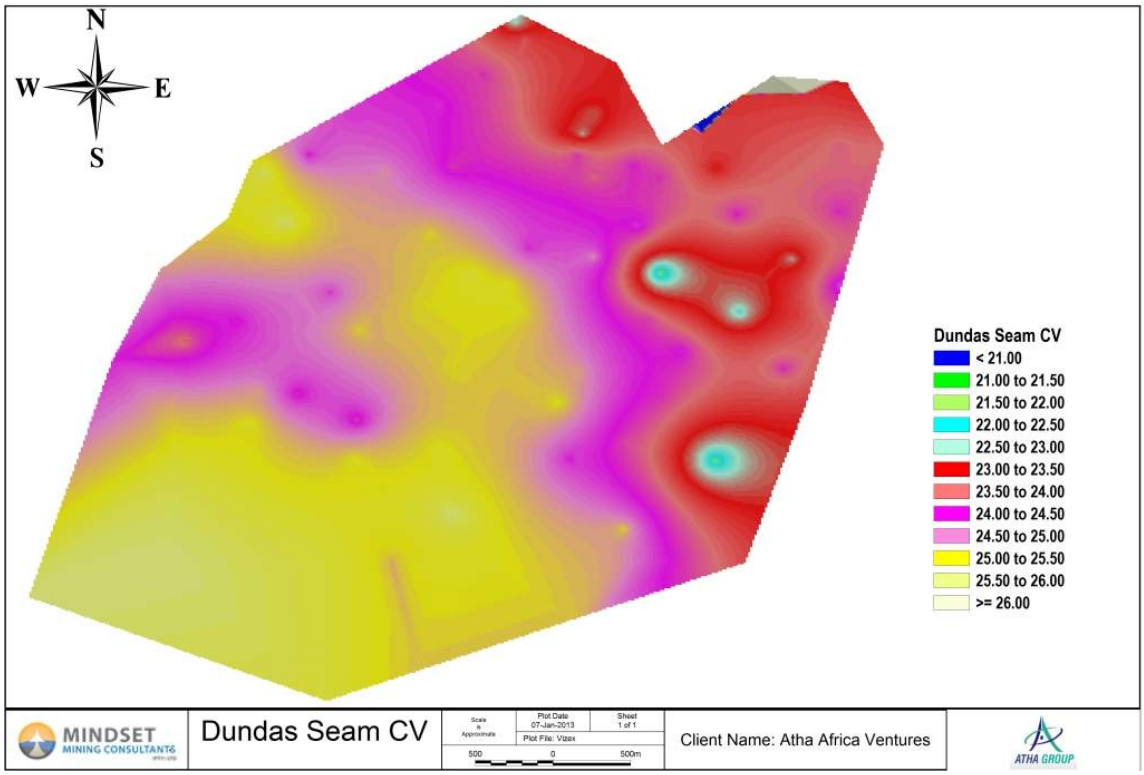


FIGURE 11: DUNDAS SEAM FIXED CARBON

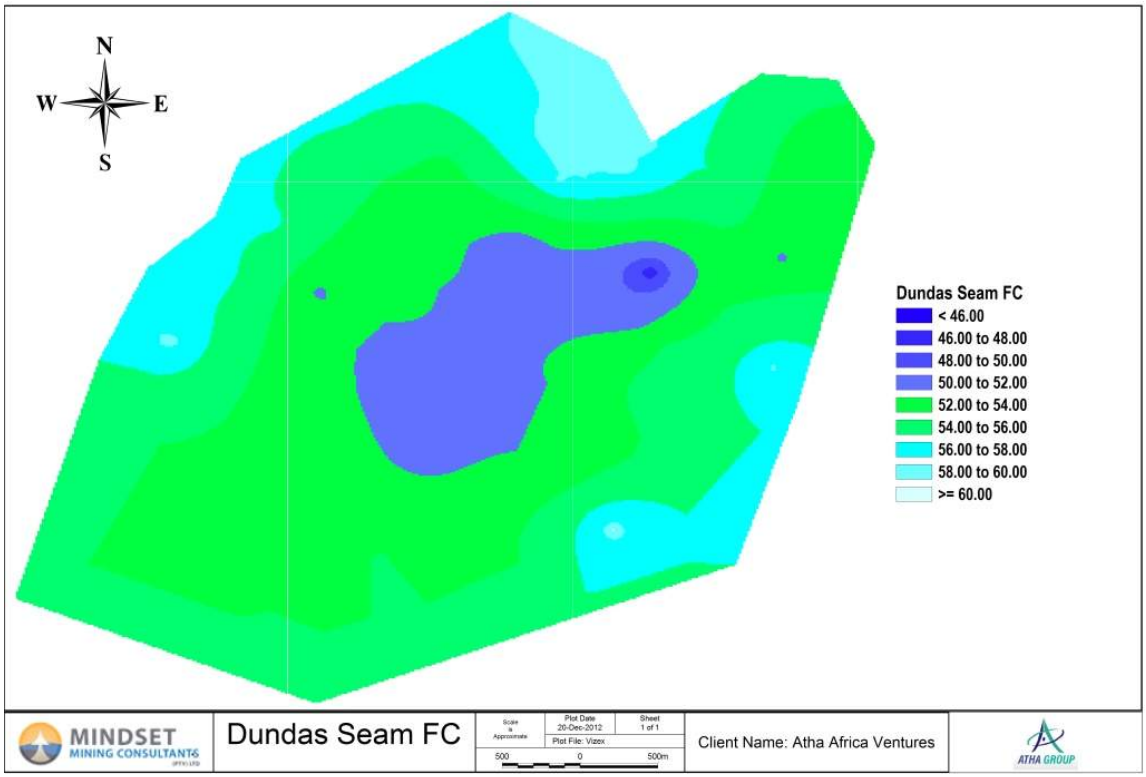


FIGURE 12: DUNDAS SEAM INHERENT MOISTURE

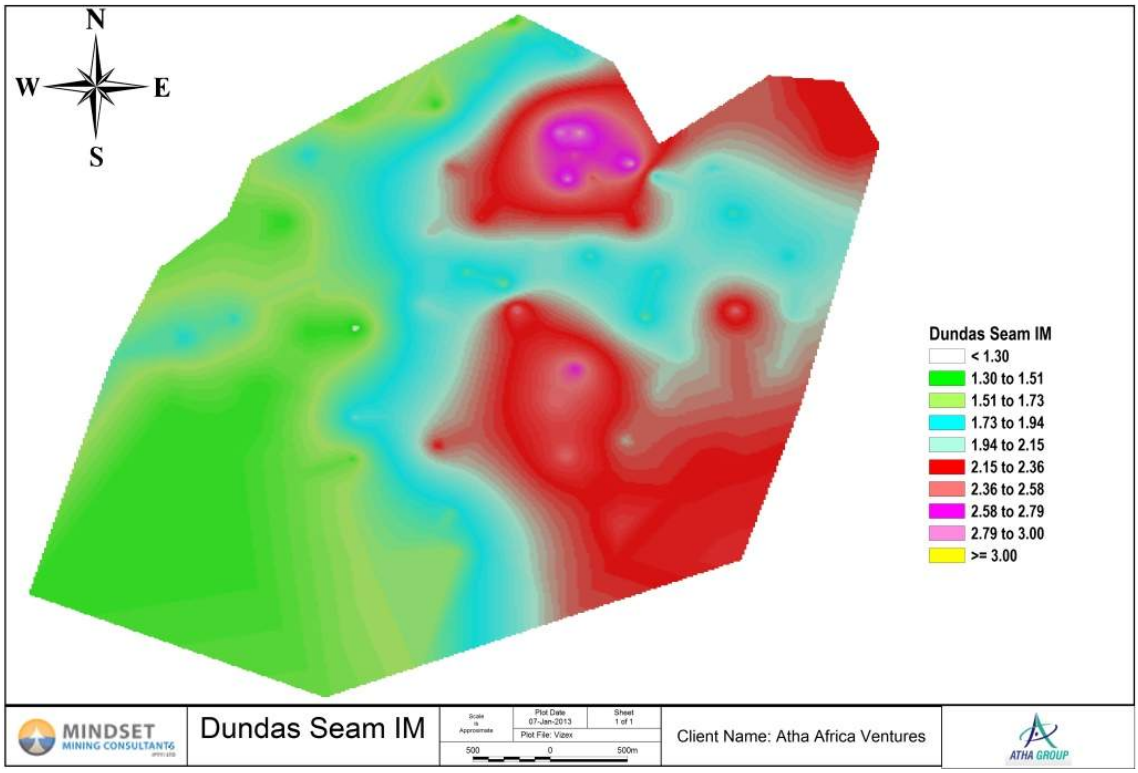


FIGURE 13: DUNDAS SEAM RELATIVE DENSITY

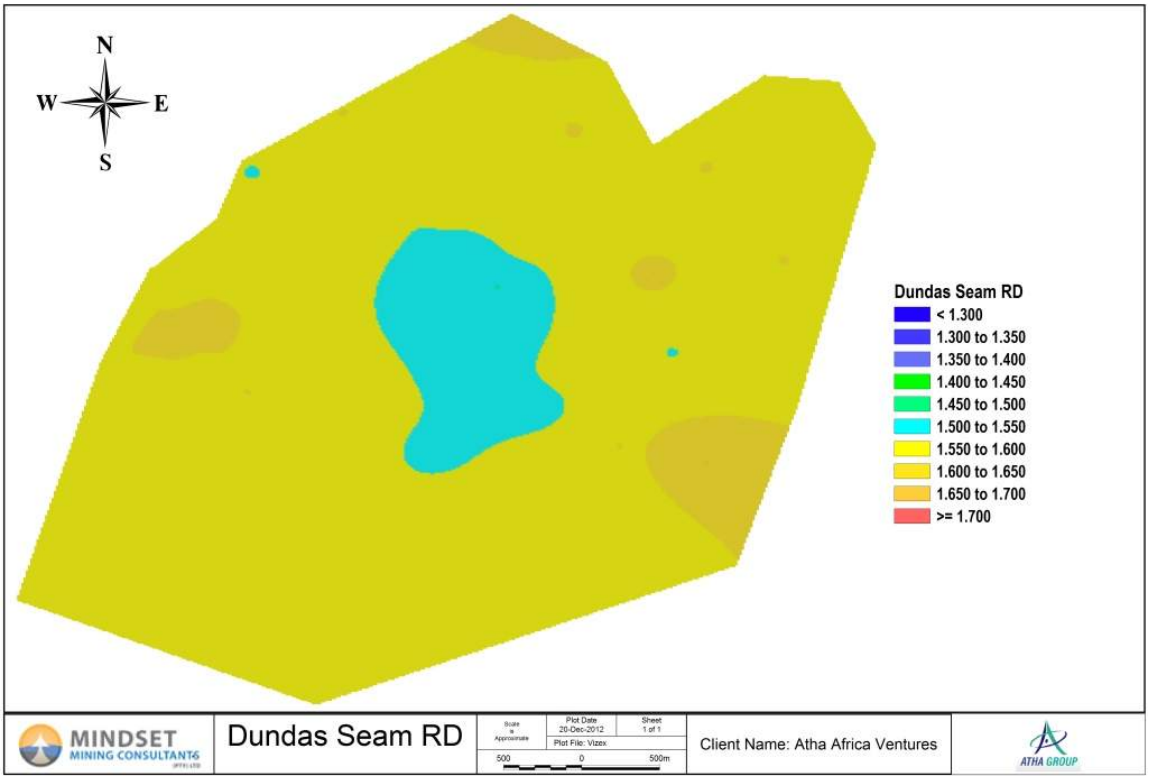


FIGURE 14: DUNDAS SEAM TOTAL SULPHUR

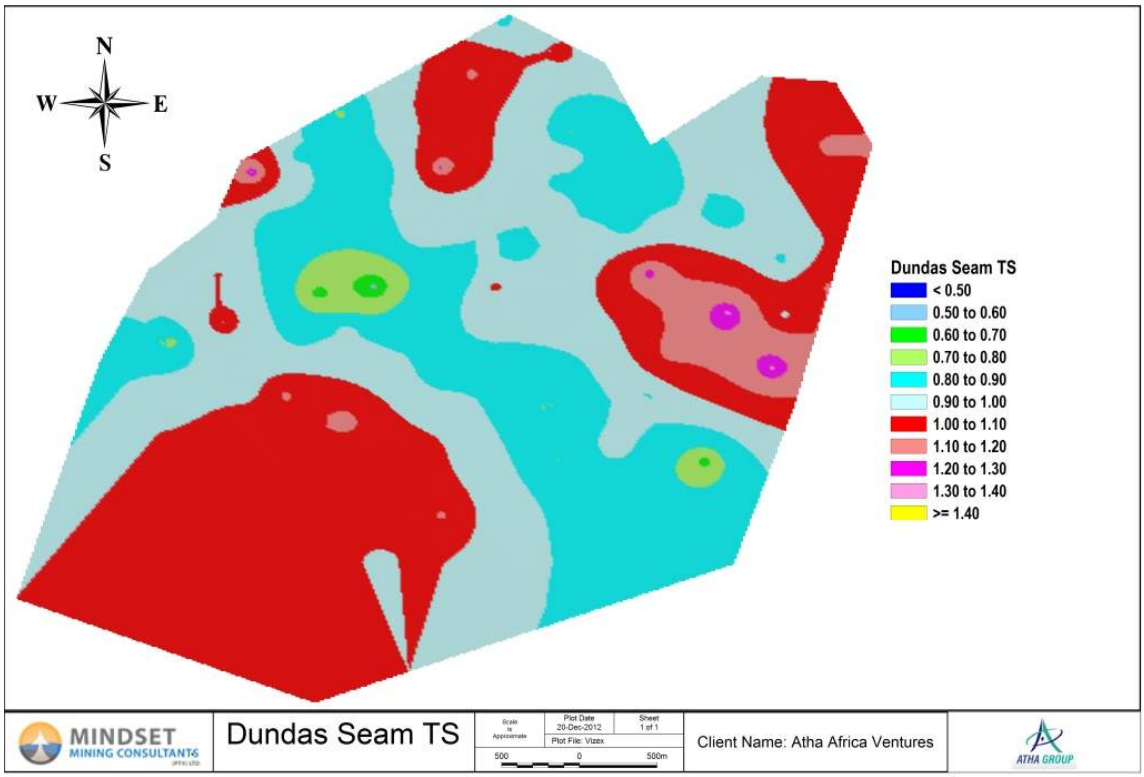


FIGURE 15: DUNDAS SEAM VOLATILE MATTER

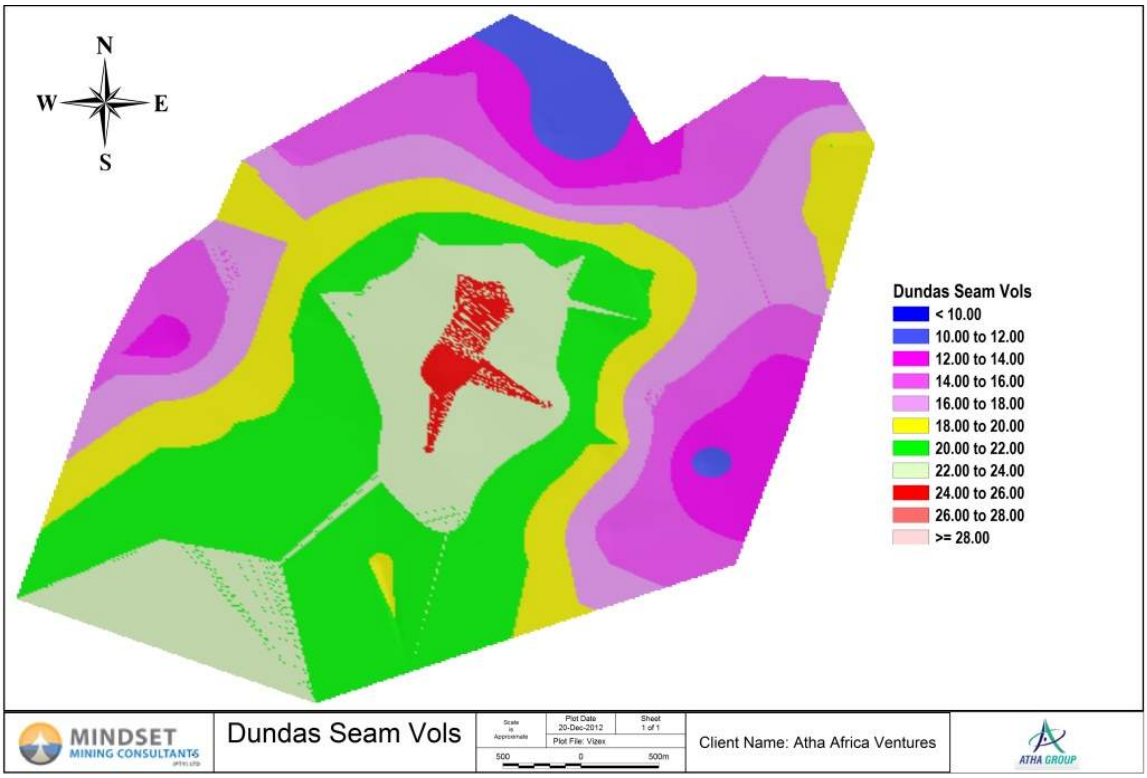
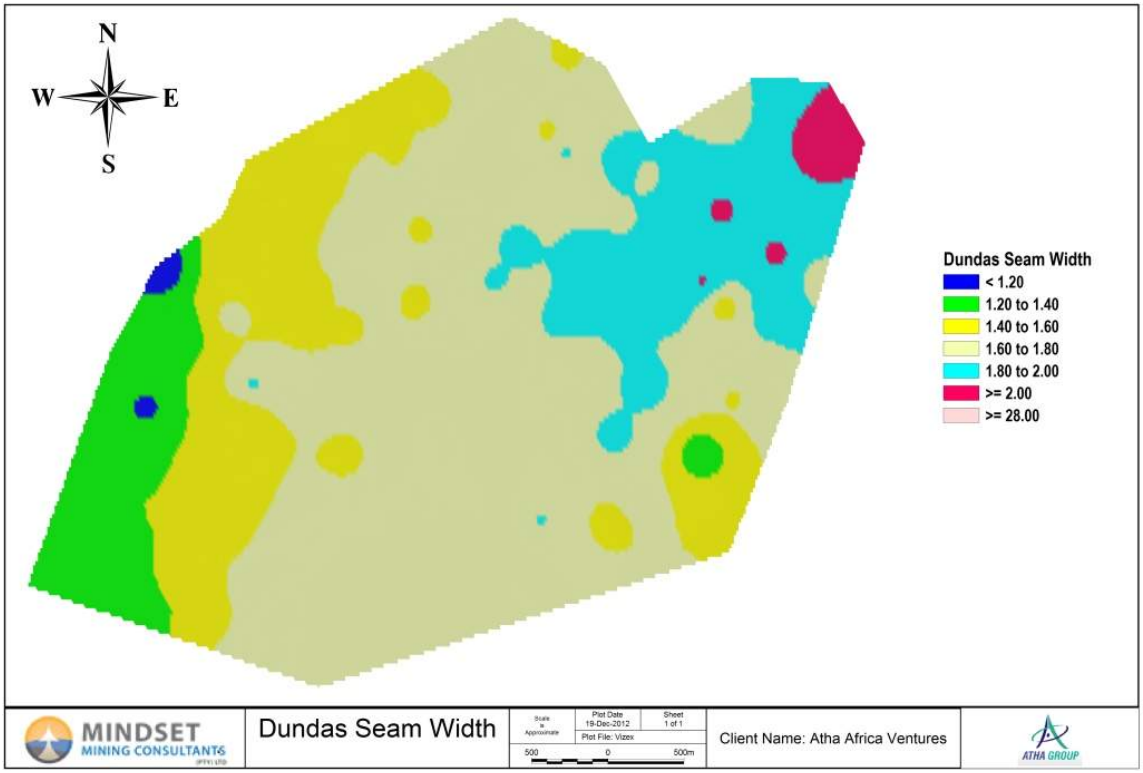


FIGURE 16: DUNDAS SEAM WIDTH



4.7. RESOURCE STATEMENT

There are three previous resource statements for the Project, listed below:

- Eugene Pretorius and Associates (Pty) Limited (May 2009) – A. Bullock. The resources were limited to 1.4 metre (m) minimum thickness and VM above 16%.
- GeoCoal (August 2009) - Geological Report. The Dundas seam tonnage with a DAF VM% of greater than 26% was lower than when using a 18% raw volatile cut-off. The in situ coal tonnage in the Dundas Seam between widths of 1.2 and 1.6m was insignificant in the area where DAF VM% was greater than 26%. The Alfred seam in situ tonnage with a DAF VM% of greater than 26% was lower than when a 18% raw volatile cut-off was used. The difference in tonnages between the other two resource statements is largely due to the 18% raw volatiles cut-off used by Bullock against 26% dry ash free volatiles cut off used by GeoCoal. Washing simulations within the defined bituminous areas was done on full seam composites
- GeoLogix (June 2010). The resources were cut-off at a minimum height of 1.75m, VM below 18% and a calorific value (CV) at 25.15 MJ/kg.

Two potential economic coal seams, namely the Alfred and Dundas, are situated in the Target Area. Unconstrained resource tonnes were calculated for both seams by Mindset Mining Consultants, a geological loss of 15% was applied to the Gross Tonnes In Situ (GTIS) to derive the Total Tonnes In Situ (TTIS). Mineable Tonnes In Situ (MTIS) has been calculated by the mining engineers and reported in the Reserve Report.

All resources are reported on an air-dried basis and there were no moisture corrections made. The resources are inclusive of the potential reserve areas. The total GTIS are 204,894,820Mt of which 123,167,853Mt will be extracted from the Alfred Seam and the remaining 81,726,967Mt from the Dundas Seam.

Table 8, Table 9 and **Table 10** reflects the Resource Statement for the Target Area. **Table 11** reflect the Resource Statement for the remainder area.

TABLE 8: RAW COAL RESOURCE STATEMENT –ALFRED SEAM TARGET AREA

BLOCK	AV WIDTH (M)	RAW RD	AREA (M^2)	VOLUME (M^3)	GTIS	GEOLOGICAL LOSS	TTIS	CV	ASH	FC	VOL	IM	TS
BLOCK A	1.68	1.55	2,596,530	4,361,478	6,760,290	1,014,044	5,746,247	23.91	24.32	53.96	19.16	2.56	0.99
BLOCK B	1.65	1.54	4,738,044	7,835,994	12,067,430	1,810,115	10,257,316	23.89	23.73	52.85	20.75	2.67	1.07
BLOCK C	1.62	1.55	7,035,999	11,397,517	17,666,151	2,649,923	15,016,228	24.10	23.45	54.81	19.46	2.28	1.46
BLOCK D	1.29	1.55	649,739	837,931	1,298,793	194,819	1,103,974	22.69	28.86	51.55	17.15	2.44	1.03
ALFRED SEAM TOTAL	**1.64**	**1.55**	**15,020,313**	**24,432,919**	**37,792,665**	**5,668,900**	**32,123,765**	**23.94**	**23.92**	53.88	**19.74**	**2.46**	**1.23**

TABLE 9: RAW COAL RESOURCE STATEMENT –DUNDAS SEAM TARGET AREA

BLOCK	AV WIDTH (M)	RAW RD	AREA (M^2)	VOLUME (M^3)	GTIS	GEOLOGICAL LOSS	TTIS	CV	ASH	FC	VOL	IM	TS
BLOCK A	1.62	1.58	2,593,761	4,212,487	6,655,730	998,359	5,657,370	23.69	26.79	55.19	15.91	2.11	0.93
BLOCK B	1.78	1.56	4,753,508	8,475,144	13,221,225	1,983,184	11,238,041	24.34	25.19	52.85	20.01	1.95	0.96
BLOCK C	1.51	1.57	7,786,763	11,731,502	18,418,458	2,762,769	15,655,689	24.69	25.79	53.81	18.82	1.58	0.96
BLOCK D	1.98	1.58	647,826	1,283,102	2,027,301	304,095	1,723,206	24.06	26.91	54.32	16.68	2.09	1.03
DUNDAS SEAM TOTAL	**1.63**	**1.57**	**15,781,859**	**25,702,235**	**40,322,714**	**6,048,407**	**34,274,307**	**24.39**	**25.82**	53.76	**18.62**	**1.80**	**0.96**

TABLE 10: COMBINED RAW COAL RESOURCE STATEMENT FOR TARGET AREA

SEAM	AV WIDTH (M)	RAW RD	AREA (M^2)	VOLUME (M^3)	GTIS	Geological Loss	TTIS	CV	ASH	FC	VOL	IM	TS
ALFRED	1.64	1.55	15,020,313	24,432,919	37,792,665	5,668,900	32,123,765	23.9	23.9	53.9	19.7	2.5	1.2
DUNDAS	1.63	1.57	15,781,859	25,702,235	40,322,714	6,048,407	34,274,307	24.4	25.8	53.8	18.6	1.8	1
TOTAL & AVERAGES	**1.64**	**1.56**	**30,802,172**	**50,135,154**	**78,115,379**	**11,717,307**	**66,398,072**	**48.3**	**49.7**	**108**	**38.4**	**4.3**	**2.2**

Abbreviations:

RD	Relative Density	CV	Calorific Value	FC	Fixed Carbon
VOL	Volatiles	IM	Inherent Moisture	TS	Total Sulphur
GTIS	Grosse Tonnes In Situ	TTIS	Total Tones In Situ		

The geological data was also modelled on Minex Software and the result thereof is displayed in the following table:

Raw Coal Resource Statement (Minex Software).
(Unrounded).

ALFRED SEAM RAW													
BLOCK	**AV WIDTH (m)**	**RAW RD**	**AREA (m2)**	**VOLUME (m3)**	**GTIS (t)**	**GEOL LOSS**	**TTIS**	**CV (MJ/kg)**	**ASH %**	**FC %**	**VOL %**	**IM %**	**TS %**
BLOCK A	1.70	1.55	2,720,575	4,616,966	7,156,299	15%	6,082,854	23.94	24.28	54.50	18.71	2.51	1.01
BLOCK B	1.66	1.54	4,940,599	8,194,534	12,701,528	15%	10,796,299	23.96	23.49	53.68	20.14	2.69	1.08
BLOCK C	1.65	1.55	6,993,205	11,506,231	17,834,657	15%	15,159,458	24.01	23.70	54.59	19.37	2.34	1.47
BLOCK D	1.24	1.55	589,634	730,176	1,131,772	15%	962,006	22.89	27.69	51.69	18.11	2.51	1.12
ALFRED SEAM TOTAL	**1.65**	**1.55**	**15,244,013**	**25,047,907**	**38,824,256**	**15%**	**33,000,618**	**23.95**	**23.85**	**54.19**	**19.46**	**2.49**	**1.25**

DUNDAS SEAM RAW													
BLOCK	**AV WIDTH (m)**	**RAW RD**	**AREA (m2)**	**VOLUME (m3)**	**GTIS (t)**	**GEOL LOSS**	**TTIS**	**CV (MJ/kg)**	**ASH %**	**FC %**	**VOL %**	**IM %**	**TS %**
BLOCK A	1.65	1.58	2,724,174	4,499,003	7,063,436	15%	6,003,921	23.46	27.59	56.02	14.27	2.12	0.79
BLOCK B	1.76	1.56	4,949,600	8,746,295	13,731,684	15%	11,671,931	24.46	24.86	53.29	19.91	1.94	0.93
BLOCK C	1.55	1.57	7,672,761	11,911,698	18,701,365	15%	15,896,160	24.36	25.85	54.72	17.75	1.68	0.97
BLOCK D	1.94	1.58	656,118	1,273,972	2,000,136	15%	1,700,116	23.96	26.35	53.66	17.96	2.03	1.01
DUNDAS SEAM TOTAL	**1.66**	**1.57**	**16,002,653**	**26,430,968**	**41,496,621**	**15%**	**35,272,128**	**24.22**	**25.84**	**54.42**	**17.88**	**1.86**	**0.93**

FIGURE 17: ALFRED SEAM – REMAINDER AREA

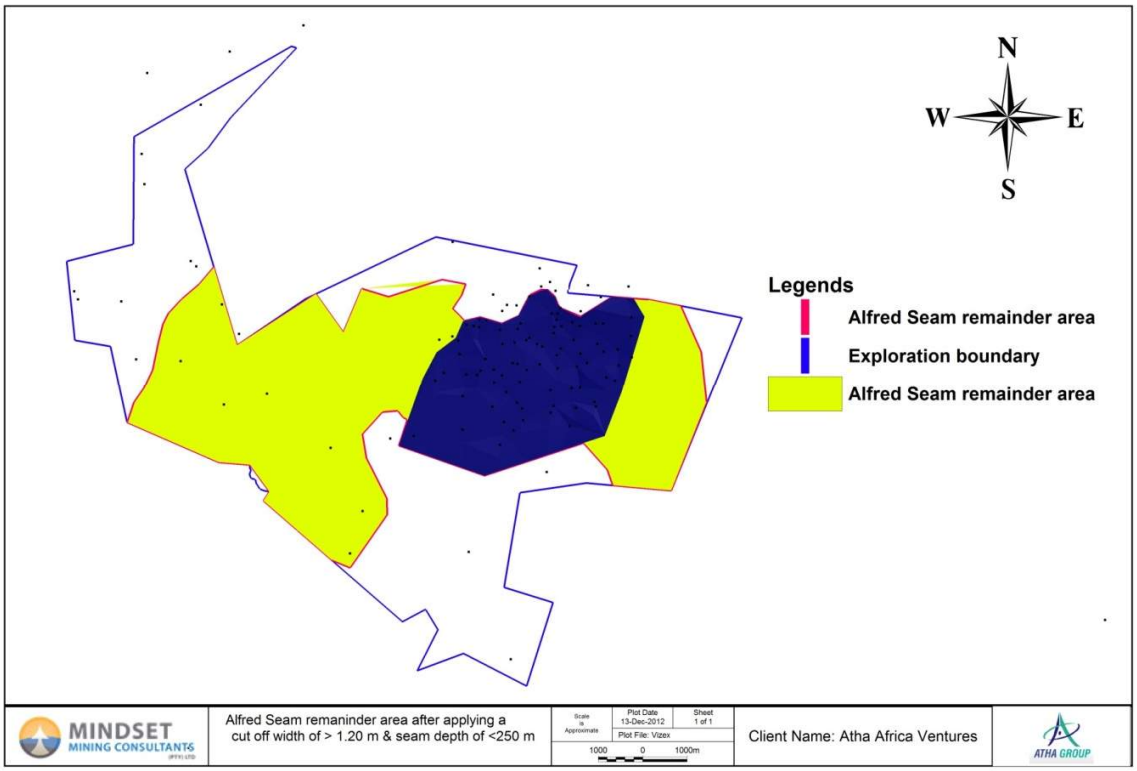


FIGURE 18: DUNDAS SEAM – REMAINDER AREA

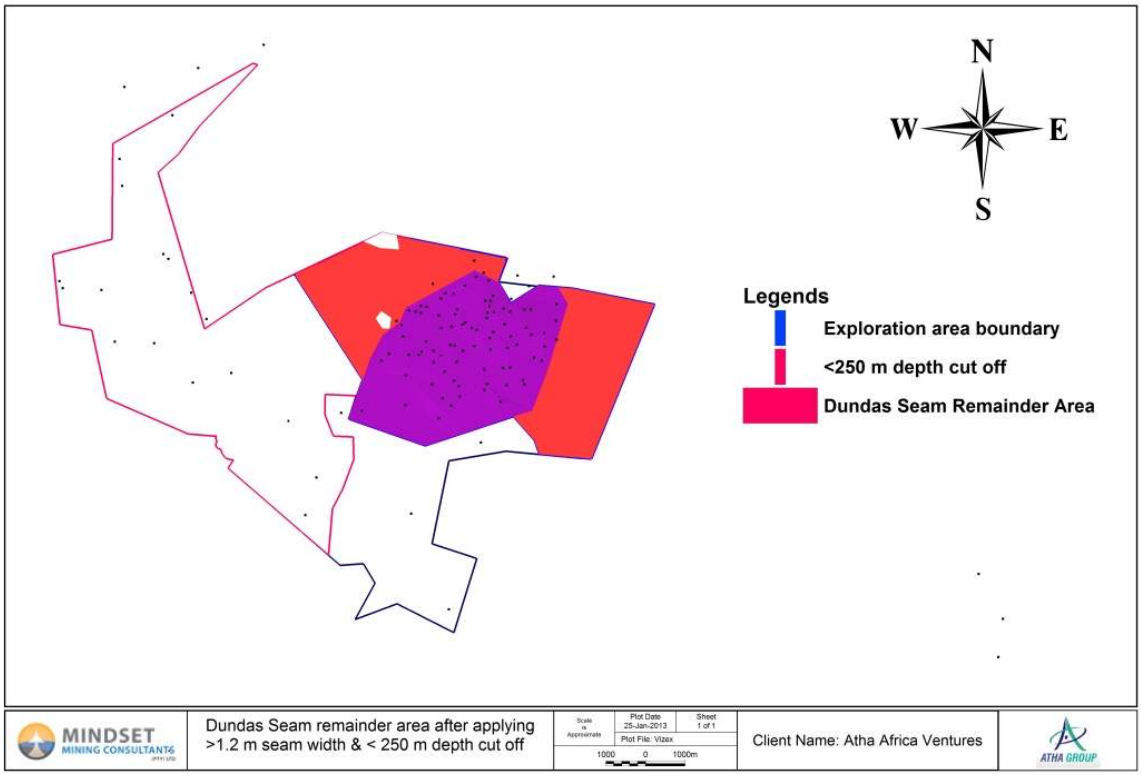

N
W
E
S
Legends
Exploration area boundary
<250 m depth cut off
Dundas Seam Remainder Area
MINDSET
MINING CONSULTANTS
Dundas Seam remainder area after applying
>1.2 m seam width & < 250 m depth cut off
Plot Date
25-Jan-2013
Sheet
1 of 1
Plot File: Vizex
1000 0 1000m
Client Name: Atha Africa Ventures
ATHA GROUP

TABLE 11: RAW COAL RESOURCE STATEMENT FOR REMAINDER AREA

SEAM	AVE WIDTH (M)	RAW RD	AREA (M2)	VOLUME (M3)	GTIS (T)	GEO LOSS (15%)	TTIS
Alfred	1.70	1.57	32,008,575	54,414,577	85,375,188	12,806,278	72,568,910
Dundas	1.65	1.57	15,993,540	26,389,231	41,404,253	6,210,638	35,193,615
TOTAL & AVERAGES	**1.68**	**1.57**	**48,002,115**	**80,803,918**	**126,779,441**	**19,016,916**	**107,762,525**

TABLE 12: COMBINED RESOURCE STATEMENT FOR THE TARGET- AND REMAINDER AREA

AREA	AVE WIDTH (M)	RAW RD	AREA (M2)	VOLUME (M3)	GTIS (T)	GEO LOSS (15%)	TTIS
Target Area	1.64	1.56	30,802,172	50,135,154	78,115,379	11,717,307	66,398,072
Remainder Area	1.68	1.57	48,002,115	80,803,918	126,779,441	19,016,916	107,762,525
TOTAL & AVERAGES	**1.66**	**1.57**	**78,804,287**	**130,939,072**	**204,894,820**	**30,734,223**	**174,160,597**

5. REGULATION 11 (1) (E): MARKET AND PRICING

An exchange rate of (United States of America Dollar) US$ 1 = ZAR 8.9 (South African Rand) was used to calculate revenue from the export fraction of the coal.

A primary product price of US$ 85 per tonne based on the RBCT API4 Index and a secondary product price of ZAR 9.5/GJ, based on current Eskom supply prices was used in the cash flow.

The following table indicates the products and their proportionate quantities

TABLE 13: PROPORTIONATE PRODUCT QUANTITY AND QUALITY

	PRIMARY PRODUCT	SECONDARY PRODUCT
Quantity per annum	1,234,032 tpa	597,840 tpa
Average Quality	27.5 MJ/kg	21.5 MJ/kg

5.1. MARKETS FOR THE PRODUCT

5.1.1. DEMAND

Worldwide coal consumption increased from 5.0 billion short tons to 7.3 billion short tons between 2000 and 2008 (45.5% growth), largely driven by China and India's significantly increased coal usage. This trend is expected to continue with China's continued industrialisation and growth.

CHART 1: COAL CONSUMPTION BY REGION (QUADRILLION BTU)

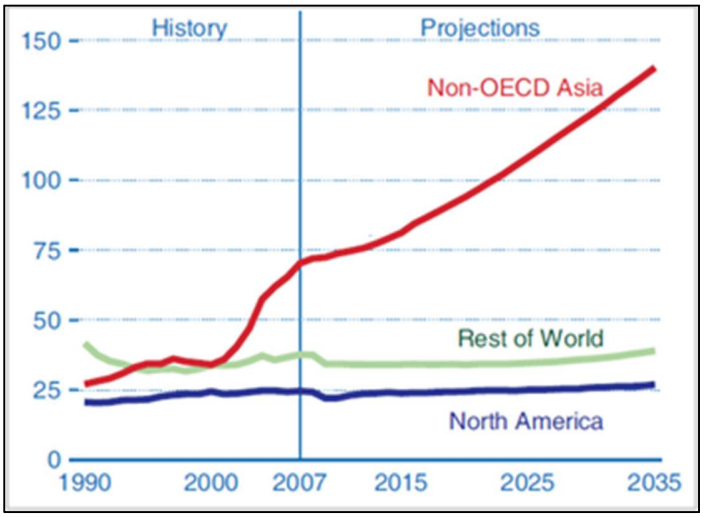
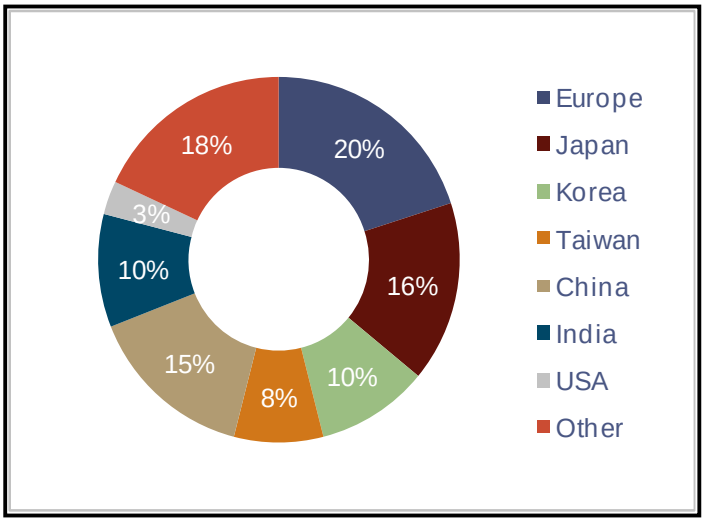
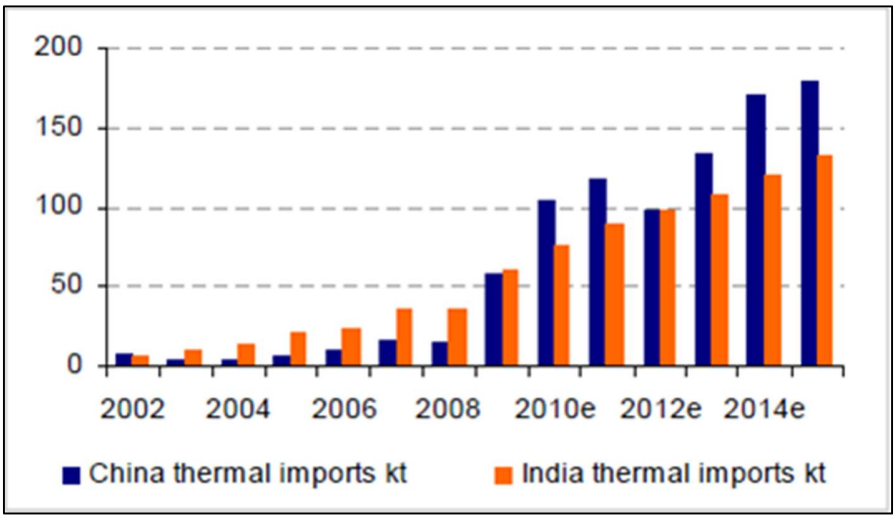


CHART 2: SEABORNE THERMAL COAL CONSUMPTION BY REGION (2010E)



The seaborne coal market reached 941 million tonnes in 2009, representing 16% of total coal consumed globally. The emergence of large energy-hungry emerging markets is having a substantial impact on demand for seaborne thermal coal. The relatively high and resilient economic growth in Asia, especially in China and India, is resulting in significant demand for electrical power.

CHART 3: INDIA AND CHINA THERMAL COAL IMPORT TREND (MT)

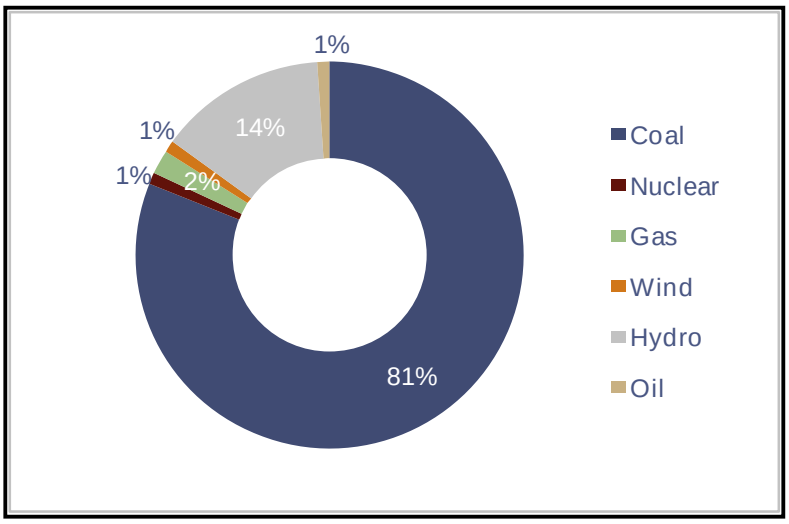


While countries such as India and China have vast coal reserves, there have been difficulties exploiting these resources rapidly enough and in some circumstances with adequate safety or efficiency. This has resulted in the emergence of large net importers such as China and India, and other mid-tier importers such as Thailand, Malaysia and Chile.

5.1.2. CHINA

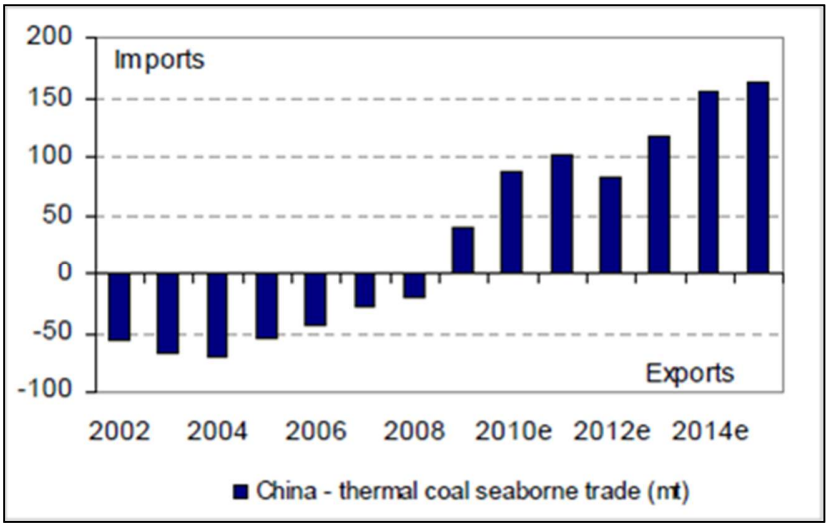
The majority of China's power supply is generated by coal-fired power stations and, as a result of this; China consumed 3.3 billion short tons of coal in 2009, which is in excess of three times of that consumed by the US.

CHART 4: CHINA POWER SUPPLY BY SOURCE (2010E)



The constraints in moving the required vast quantities of coal, combined with greater mine regulation, is expected to force coastal utilities in China to look increasingly to the seaborne market for future supplies. It is projected that China will continue to be a growing net importer of coal, as electricity demand grows with on-going industrialisation and the domestic thermal coal supply growth is limited by infrastructure constraints.

CHART 5: CHINA THERMAL COAL NET TRADE FORECAST

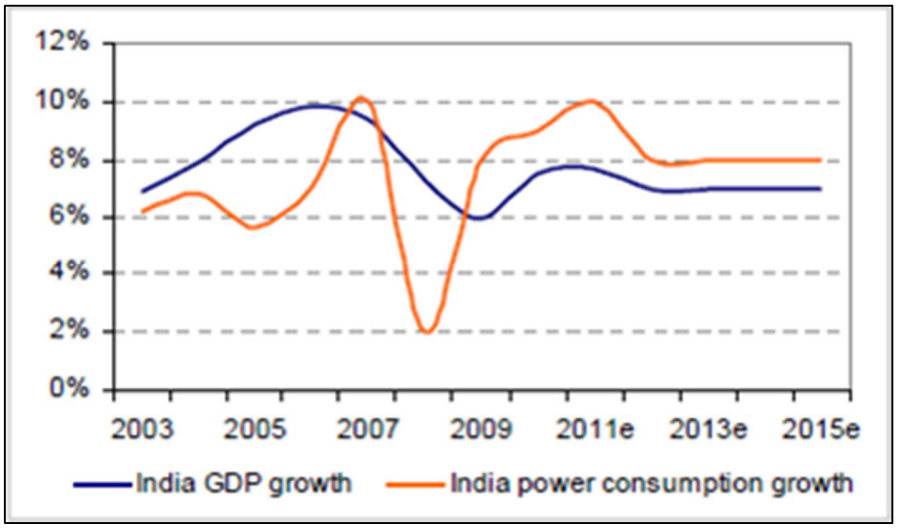


Source: Deutsche Bank

5.1.3. INDIA

According to the International Energy Agency, 69% of India's power requirement is met by thermal coal. Indian coal demand is expected to increase from 611 million tonnes in 2010 to 726 million tonnes in 2012 and coal imports are forecast to increase from 76 million tonnes in 2010 to 110 million tonnes in 2012.

CHART 6: INDIA GDP AND POWER CONSUMPTION GROWTH

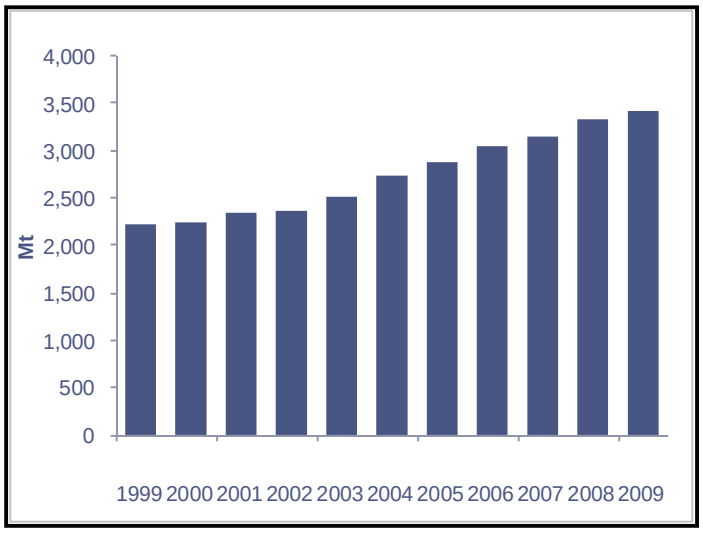


The majority of the increase in coal demand will be driven by the power sector as the Indian government is aiming to add 90 Gigawatts of new generating capacity by 2012 in a drive to cover its supply deficit.

5.1.4. SUPPLY

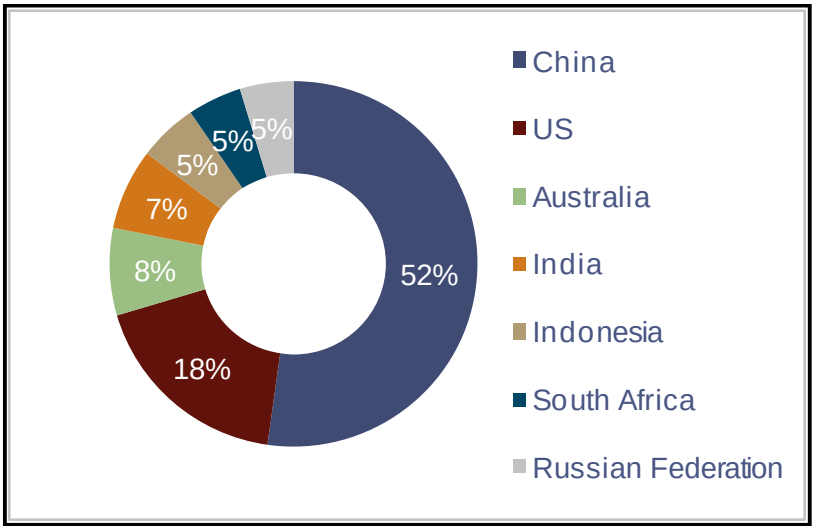
From 2003 to 2008 coal was the fastest growing fuel type globally. However, there are considerable challenges in exporting greater and greater volumes of coal as infrastructure bottlenecks have become an on-going issue in key areas. Further, the prospect of increased domestic demand for traditional suppliers has the potential to truncate export growth.

CHART 7: WORLDWIDE COAL PRODUCTION



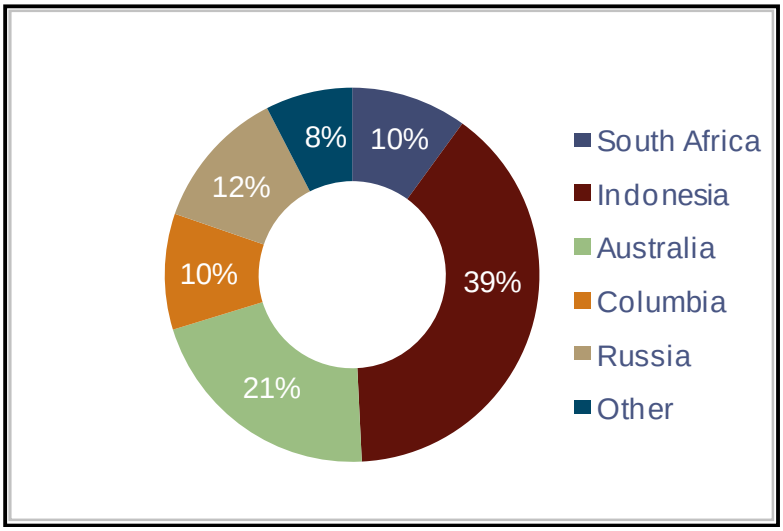
Global seaborne thermal coal supply in 2010 is forecast at 679 million tonnes, with the largest contributor being Indonesia followed by Australia. From 2003 to 2008 coal was the fastest growing fuel type globally. However, there are considerable challenges in exporting greater and greater volumes of coal as infrastructure bottlenecks have become an on-going issue in key areas. Further, the prospect of increased domestic demand for traditional suppliers has the potential to truncate export growth.

CHART 8: GLOBAL 2009 COAL PRODUCTION



Source: BP Statistical Review

CHART 9: GLOBAL 2010 SEABORNE THERMAL COAL SUPPLY



Source: Morgan Stanley

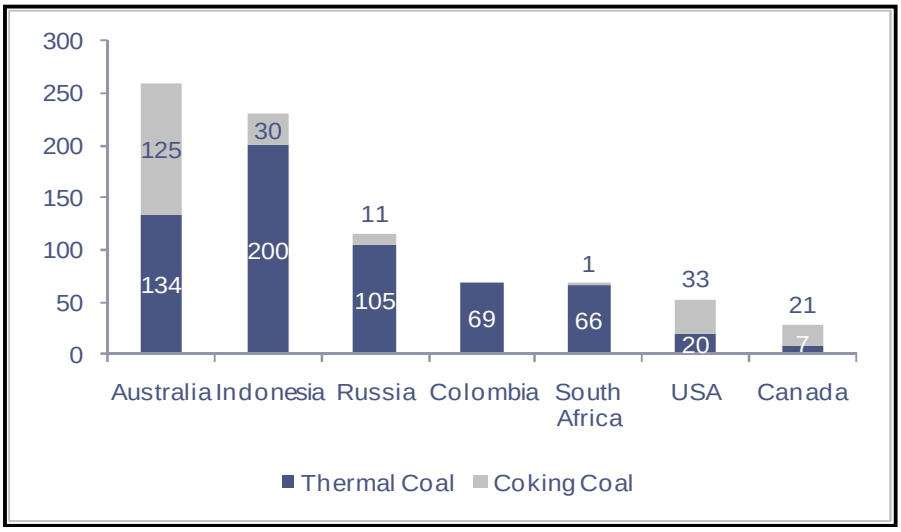
5.1.5. SOUTH AFRICA

5.1.5.1. OVERVIEW

South Africa is one of the world's largest coal producers, with an amount of 238.8 million tonnes produced in 2009. Out of the 238.8 million tonnes, 175.7 million tonnes (73.6%) was supplied locally and 63.1 million tonnes (26.4%) was exported.

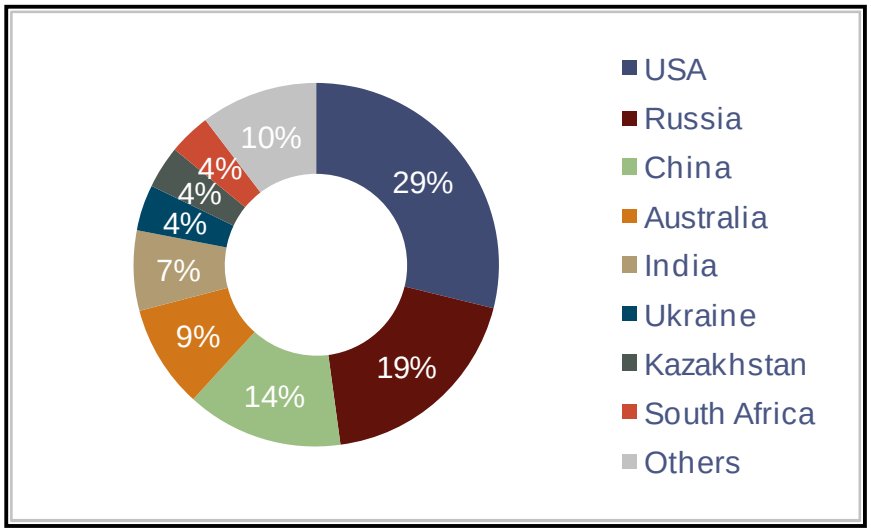
Demand for South African coal is expected to increase.

CHART 10: TOP GLOBAL COAL EXPORTERS 2010 (MT)



Source: JP Morgan

CHART 11: GLOBAL SHARE OF COAL RESERVES



Source: JP Morgan

5.1.5.2. SOUTH AFRICAN EXPORT MARKET

EXPORT CAPACITY

The majority of South African coal is exported via the world's single largest export coal terminal, the RBCT. The R1.2 billion Phase V Expansion was completed on 1 May 2010, which expanded the coal terminal from having an export capacity of 76 million tonnes to 91 million tonnes.

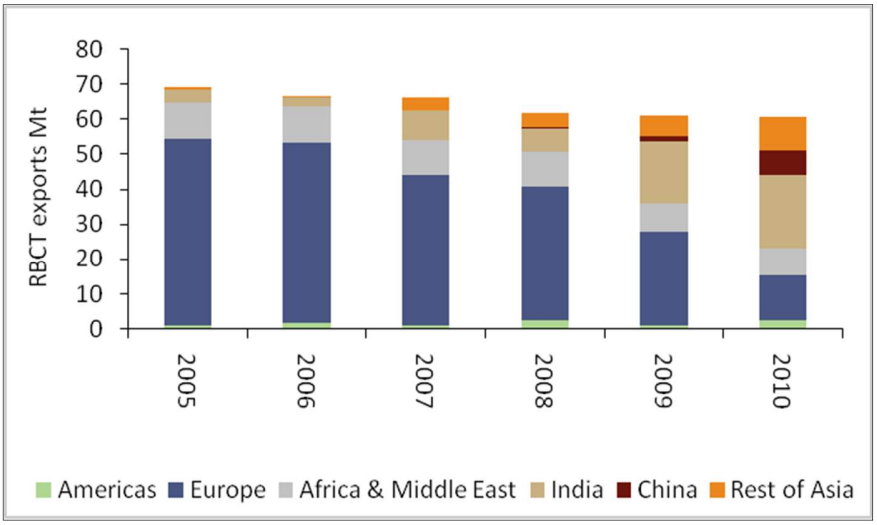
Rail infrastructure however remains a bottleneck to export growth with rail capacity to the port currently limited to less than 65 Mtpa. To alleviate this, state-owned transport utility Transnet Limited (Transnet) has committed R15.4 billion to expanding coal export capacity on the Richards Bay railway line to 81 Mtpa by 2014/2015, with plans to expand capacity to 91 Mtpa over the longer term to match RBCT capacity.

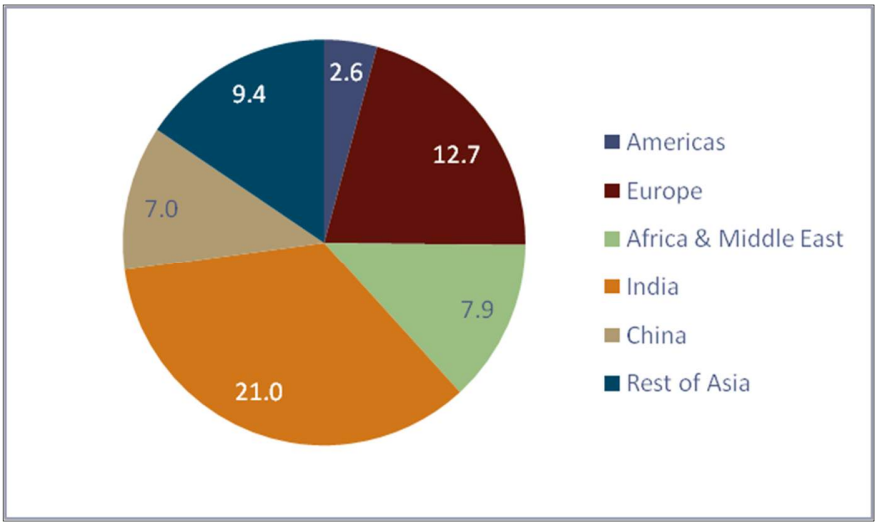
Secondary ports are being developed and these may handle a greater share of South African exports in the future. Maputo's Matola Coal Terminal (TCM), located in Mozambique, is also expanding its coal terminal capacity from 4Mtpa at present to 6Mtpa by August 2010, with a further expansion to 16 Mtpa under consideration. Most of TCM's coal shipments are sourced from Limpopo and Mpumalanga in the north eastern province of South Africa, for which it is the closest port.

EXPORT COAL DEMAND

Asia became South Africa's main export region in 2009, with exports increasing from 11.1 million tonnes (17% of South African exports) in 2008 to 27.4 million tonnes (43% of South African exports) in 2009, driven by India, the largest destination for South African coal in 2009. Exports to Europe fell from 41.4 million tonnes to 26.1 million tonnes, representing 40% of South Africa's coal exports in 2009.

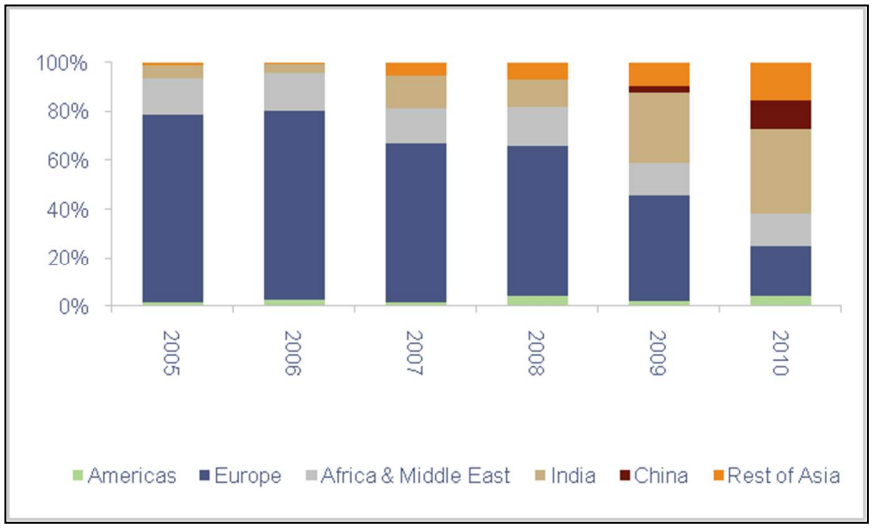
CHART 12: RBCT EXPORT DESTINATIONS (MT)

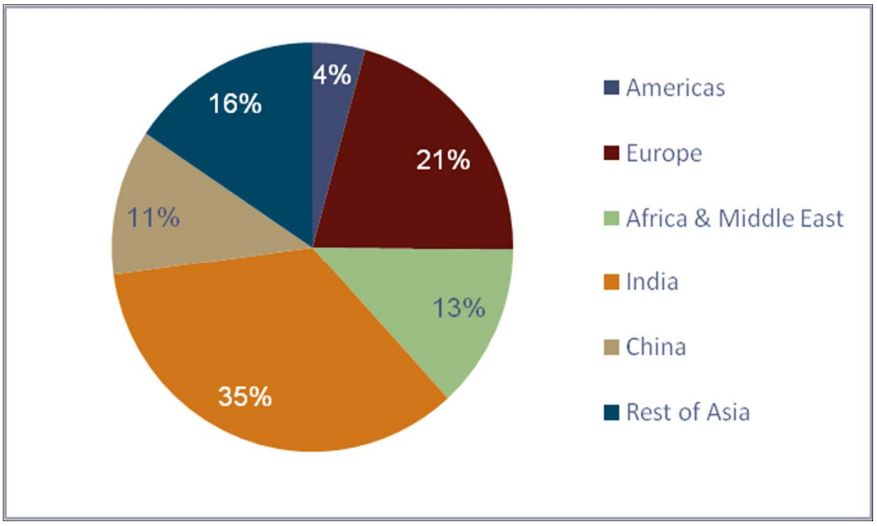




RBCT, Morgan Stanley

CHART 13: RBCT EXPORT DESTINATIONS (%)





RBCT, Morgan Stanley

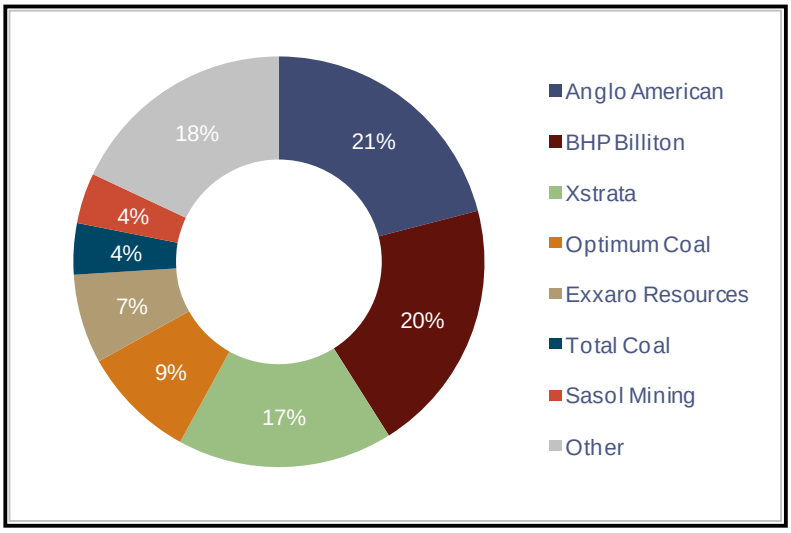
The Asia Pacific region is expected to remain South Africa's main export region in the short to medium term, due to a slow recovery in Europe following the global financial crisis and the increasing demand from Asia.

SOUTH AFRICAN EXPORTERS OF COAL

In 2009, RBCT reported 61.1 million tonnes of coal exports which accounted for c.95% of South Africa's total exports in 2009. The remaining 3.5 million tonnes of coal was exported via TCM, Beira Coal Terminal and Dry Bulk Terminal, with 1.3, 1.6 and 0.6 million tonnes respectively.

RBCT is a privately owned terminal, with the main shareholders consisting of Anglo American, BECSA, Xstrata South Africa (Proprietary) Limited, Optimum Coal Holdings Limited and Exxaro Resources Limited.

CHART 14: RBCT ALLOCATION ON 91 MT BASIS (2009)



RBCT, Morgan Stanley

5.1.5.3. LOCAL THERMAL COAL SALES

LOCAL THERMAL COAL DEMAND

Current domestic thermal coal demand makes up 73.6% of total demand / production for South African coal produced. Coal is mainly used for the provision of electricity by Eskom and industrial applications such as the production of synthetic fuel by Sasol.

Increased local demand is expected to be driven by the opening of the Sasol Mafutha plant; an increase of export capacity coupled with increased international demand; the increase in the load factor of current power stations; the return to service of the Grootvlei, Camden and Komati power stations; and the new coal fired power stations, Medupi and Kusile.

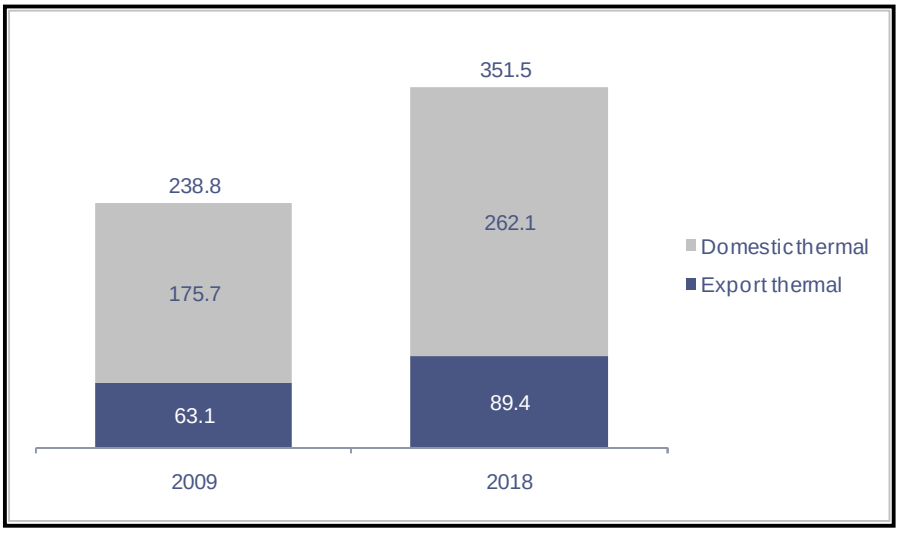
South Africa is heavily reliant on thermal coal for power generation, as it accounts for 85% of Eskom, South Africa's state-owned electricity supplier, installed capacity.

Eskom is currently undergoing a 12,000MW build programme, the fifth largest in the world. This will increase its capacity from 41,939MW to 53,939MW and will ultimately lead to an increased demand for thermal coal.

The importance of coal generation in South Africa was emphasised in January 2008, when low coal stocks, poor quality coal, wet coal and technical problems resulted in rolling black outs across South Africa. Due to the supply electricity deficit, Eskom undertook to restart three large coal-fired plants that had been closed for over a decade, namely the Camden, Grootvlei and Komati plants. They are scheduled to return to service by 2011 and will add approximately 3.8GW to South Africa's electricity grid.

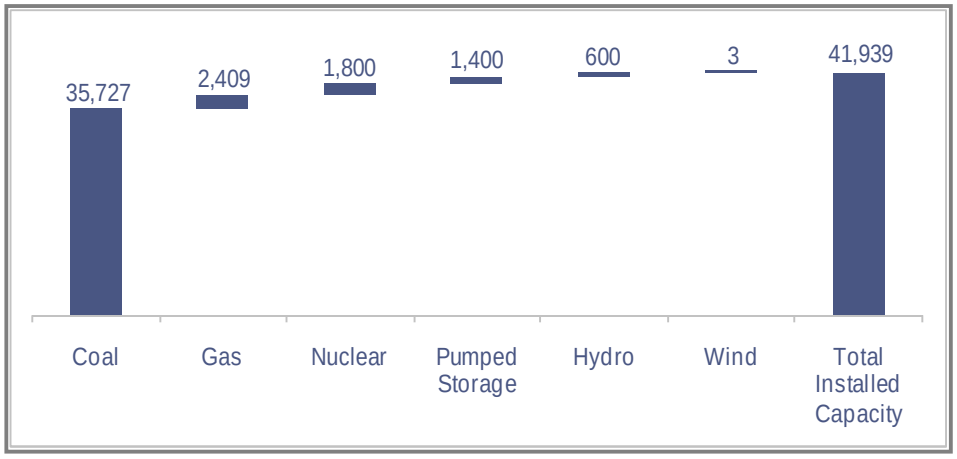
Additionally, Eskom is constructing two new coal-fired plants, Medupi and Kusile with a combined generating capacity of 9.6GW, which are scheduled to be fully operational by the end of 2016. Thermal coal for the Medupi and Kusile power plants will be supplied by the Grootgeluk and the New Largo coal mining operations, respectively.

CHART 15: SA THERMAL COAL DEMAND / PRODUCTION FORECAST (MT)



Source: Wood Mackenzie

CHART 16: COMPONENTS OF ESKOM'S INSTALLED CAPACITY - 2010 (MW)



Source: Eskom

Thermal coal use in the industrial sector is driven by production of steam and process heat for industrial applications and the production of coal-based synthetic liquids. There are currently two large-scale Coal-to-Liquid (CTL) plants in South Africa, namely Sasol II and Sasol III that are able to supply up to 150,000 barrels of synthetic liquids per day and account for 20% of South Africa's total liquid fuel supply. Approximately 25% of South Africa's total coal consumption is used for synthetic liquid fuel production.

5.1.5.4. LOCAL THERMAL COAL SUPPLY

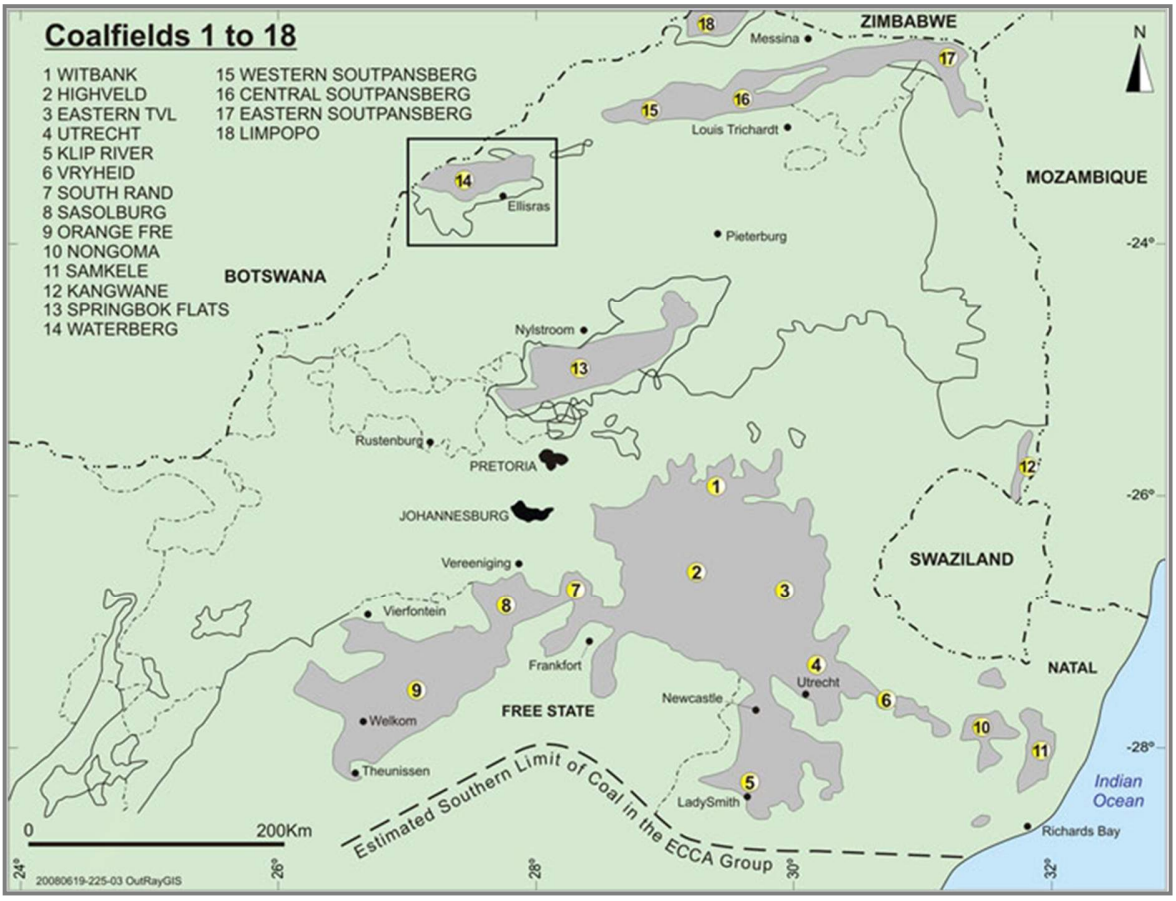
The South African coal industry produced approximately 238.8 million tonnes in 2009, of which 239 million tonnes was thermal coal (98% of total exports) and 5 million tonnes was metallurgical.

Analysis has identified 8.9 billion tonnes of marketable reserves at the end of 2009, where marketable reserves are identified as the total forecast future marketable coal production, over the life of each identified mine and project. Thermal coal accounts for 95% of the total marketable reserves and metallurgical coal 5%.

The Mpumalanga Province contains the bulk of South Africa's marketable reserves with over 5.5 billion tonnes or 62% of the total, and the majority of the export thermal coal reserves, which are located in the Witbank,

Ermelo and Highveld coalfields. The Limpopo Province contains 32% of South Africa's total marketable reserves and 88% of the country's metallurgical coal reserves.

MAP 7: SOUTH AFRICAN COALFIELDS

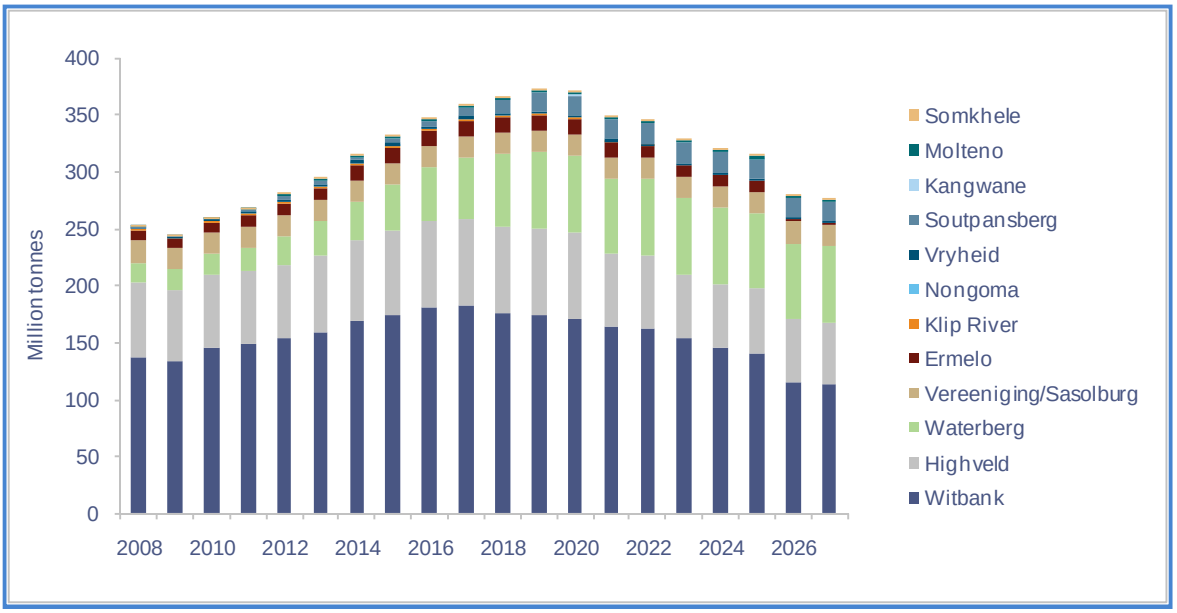


Wood Mackenzie's analysis of existing operations and new projects indicates an increase in South African production to almost 333Mtpa by 2015, a rise of 73Mtpa from 2010. Furthermore, a production of some 374Mtpa is envisaged by 2019.

South African production is expected to remain strong beyond 2019; although a number of existing operations are forecast to close as reserves are depleted.

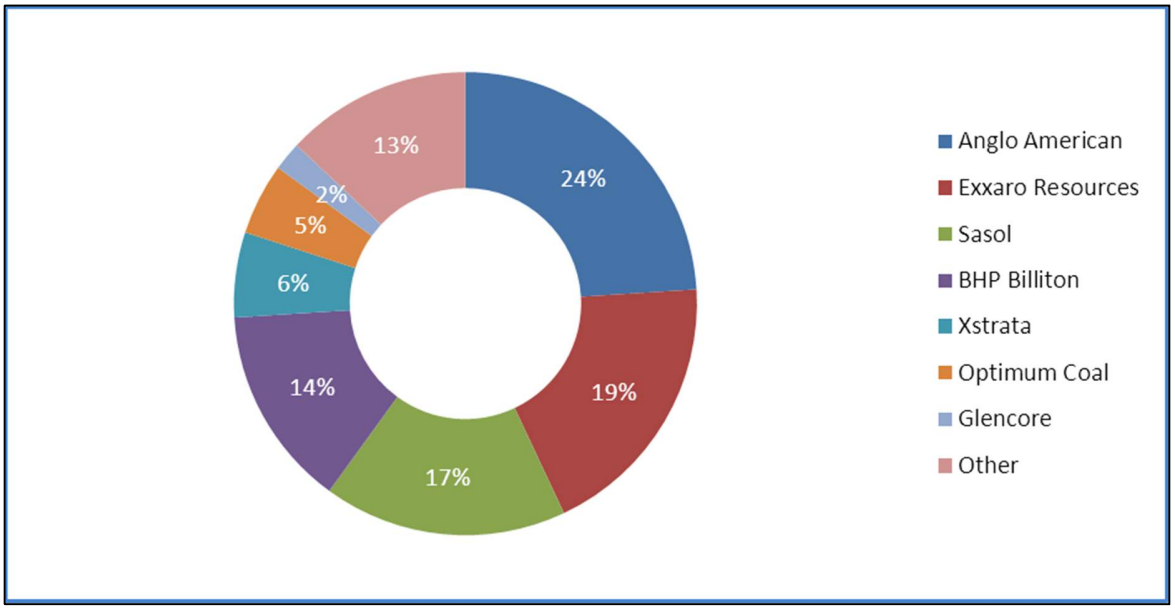
Wood Mackenzie analysis indicates that coal production from Mpumalanga may decrease from 2017 onwards, which may present opportunities to supply coal to Eskom.

CHART 17: SOUTH AFRICAN COALFIELDS



Source: Wood Mackenzie

CHART 18: MAJOR SA COAL PRODUCERS (2009)



5.1.6. INTERNATIONAL THERMAL COAL PRICES

Each year, the Japanese Power Utilities (JPU) negotiates with Australian coal producers to determine the contract prices for thermal coal for the next year. This Australia - Japan coal price has traditionally been viewed as a market bellwether for annual pricing of term contracts in Pacific export markets, which in turn, offers a reference from where spot prices might progress. The JPU is quoted for Australian steam coal from New South Wales (NSW) with a specific energy or heat content on a gross air-dried basis (adb) of 6,700kcal/kg. Given the typical total and IM contents of NSW steam coals, 8% and 2.5%, respectively, the heat content of the index coal equates to approximately 6,253kcal/kg on an as-received basis (arb).

5.1.7. EXPORT DEMAND

Traditionally, the vast majority of South African steam coal production has been exported to Europe, with lesser amounts to various destinations in the Americas, Asia and the Middle East. In 2008, according to data from Platts International Coal Report, nearly 37Mt, or 82%, of the 45Mt of South African bituminous coal exports with a known destination were shipped to Europe. Recently, however, that number has shifted significantly to favour Indian and Asian markets as they have returned higher sales prices than shipments into Europe. In 2009 South African sales into Europe dropped to 27Mt while sales into India and Asian countries increased from just less than 4Mt in 2008 to nearly 12Mt in 2009. This trend has continued into 2010 as Europe has only imported 7.5Mt of South African coal through May while India and Asian countries have accounted for 15.4Mt of South African exports through the same time period, with India responsible for nearly 10Mt alone.

Furthermore, current market conditions as well as rising Chinese and Indian coal demand indicate that this trend is likely to continue for the foreseeable future. While CIF ARA prices have recently climbed back to more than $92/tonne, the current freight rate for coal shipped from the RBCT to Europe via Capesize vessel is $14.50/tonne, resulting in an FOB vessel price of $78/tonne. Meanwhile, CIF Korea prices have been steady at more than $100/tonne since December 2009 and currently reside at $105/tonne. Even when accounting for the higher freight rate to Korea of $19/tonne, this still results in a greater FOB RBCT price of $86/tonne, which, incidentally, is much closer to current market assessments of between $84.57/tonne and $88.60/tonne FOB Richards Bay.

5.2. SUMMARY OF PRODUCT CONSUMERS

The table below reflects the Yzermyn Underground Mine Reserves and Market Split on an annual basis.

TABLE 14: PRODUCT TABLE

	TOTAL (TONNES)	PROPORTION (%)
Total Power Station (tons)	597,840	32.6%
Total prime for export market (tons)	1,234,032	67.4%
Total (tons)	**1,831,872**	**100%**

5.3. SUMMARY OF CUSTOMER SPECIFICATIONS AND DETAILS OF ANY PROPOSED BENEFICIATION

The following possible off-take agreements have been finalized with various parties:

- London Commodity Brokers confirmed off-take for the coal having Volatiles of less than 20%. Pricing is indicated at a discount of 1% on free-on-board (FOB) for every 1% of Volatile below 20%.
- Shyam Group, a Kolkata-based metal producer, confirmed to have arrangements for the supply of around 600,000 Tonnes (t) per year.
- Tata Powers from New Delhi, has confirmed the market for coal with Volatiles lower than 20%.
- Stemcor, from India, has indicated a minimum off-take of 1.5 Million tonnes per annum (Mtpa).

5.4. LIST OF PRODUCTS AND PROPORTIONATE QUALITIES

The mine is planned to ultimately have eight operating sections, four of which will be on the Alfred Seam and the remaining four on the Dundas seam.

Conventional mining techniques will deliver an average of 23,500t per section per month.

The annual production is thus calculated as 2,256,000t.

Both seams will be washed together, with an Export Product (27.5 Megajoules per kilogram [MJ/kg]) yield of 54.7%. The Secondary Product (21.5MJ/kg) will yield 26.5%

TABLE 15: PRIMARY AND SECONDARY PRODUCT YIELDS

PRODUCTS	YIELD PER ANNUM
Primary	1,234,032tpa
Secondary	597,840tpa

5.5. SUMMARY OF INFRASTRUCTURE REQUIREMENTS

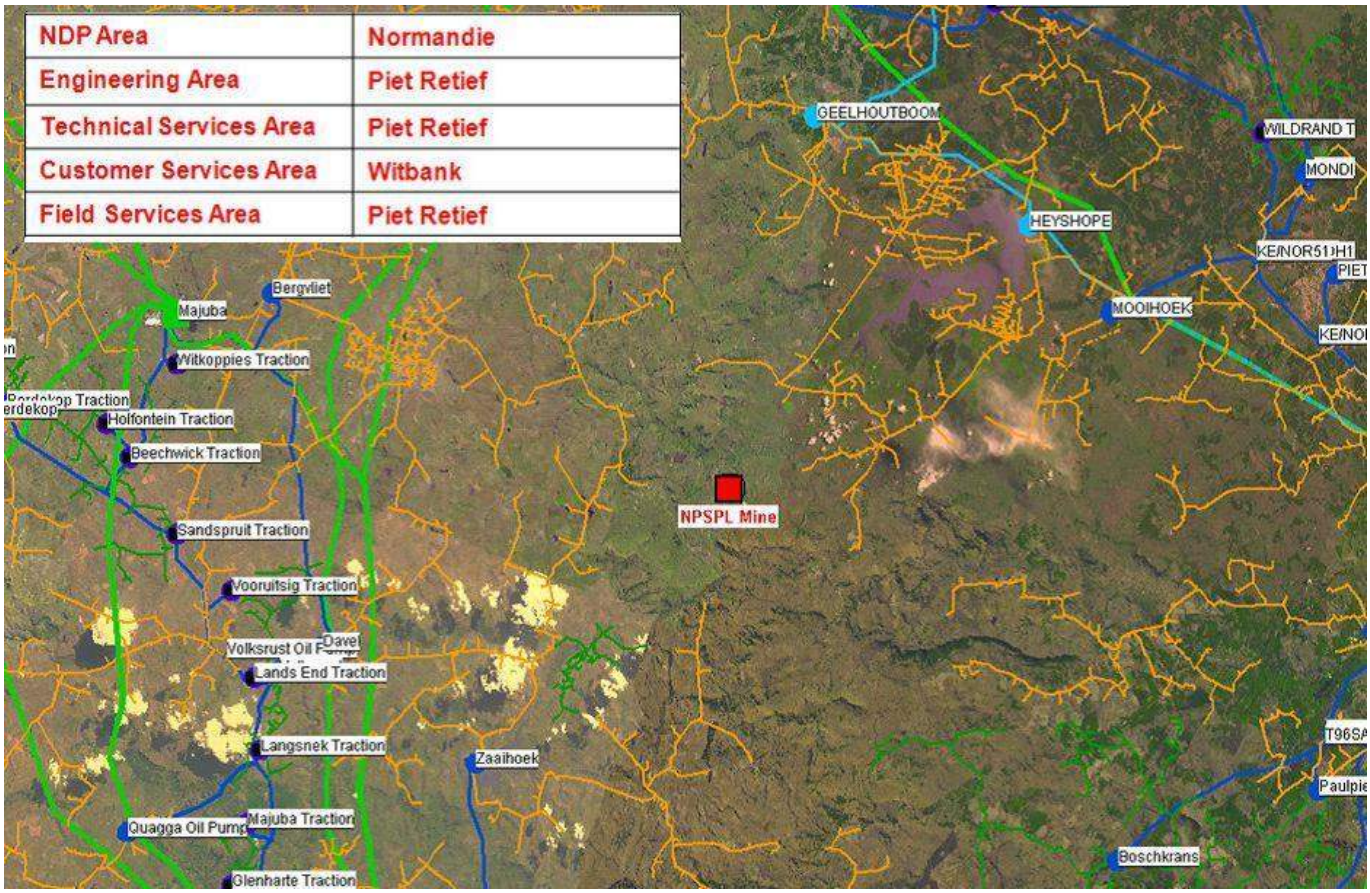
5.5.1. MINE INFRASTRUCTURE

Existing infrastructure around the Yzermyn Target Area is minimal and consists of only a gravel road leading to the proposed mining site from Dirkiesdorp.

5.5.2. POWER SUPPLY

The proposed NPSPL 132/22kV substation will form part of the Normandie 132kV system network and will be supplied from Geelhoutboom 132/22kV and 132/11kV S/S. Geelhoutboom S/S forms part of the Normandie 132kV system network.

MAP 8: GEOGRAPHICAL LAYOUT OF NORMANDIE AND VOLKSRUST HV NETWORK

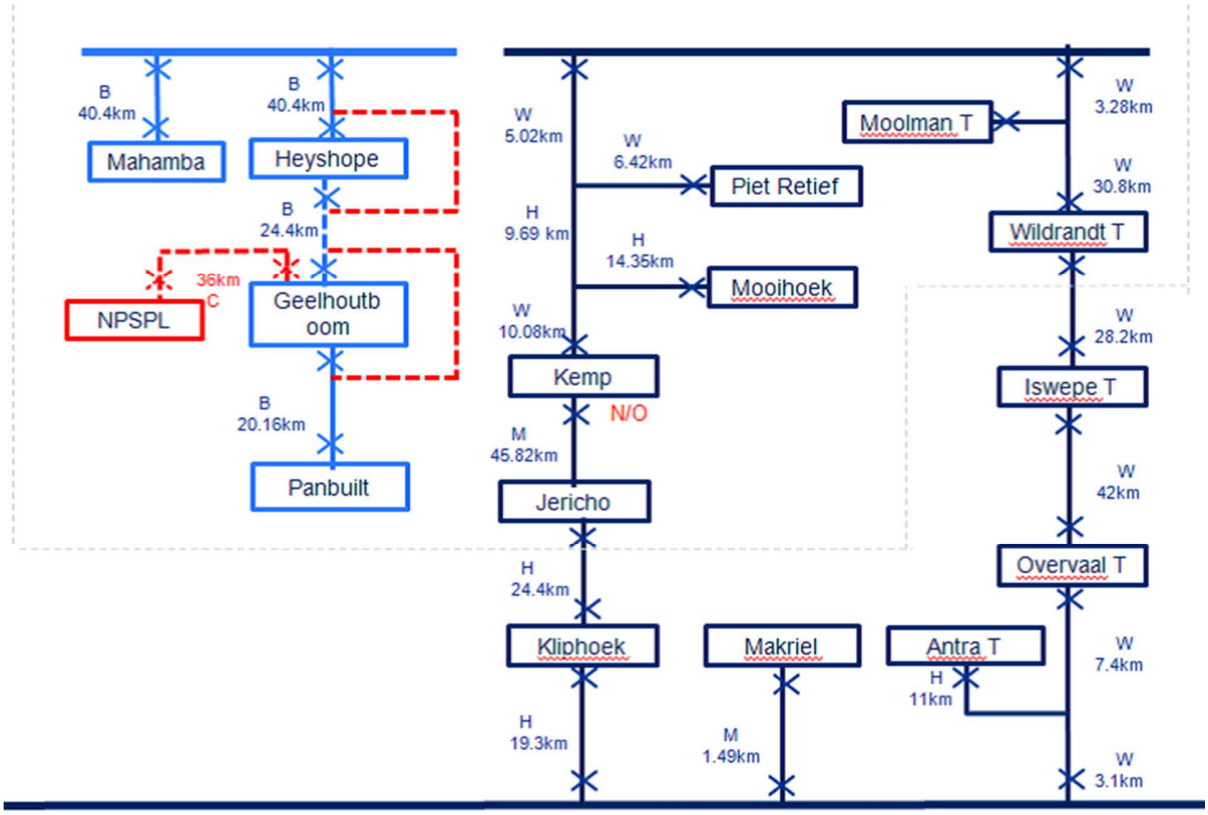


The scope of work for the power supply is as follows:

- Install a 132kV feeder bay at Geelhoutboom S/S
- Build an approximate 36km 132kV chickadee line from Geelhoutboom S/S to NPSPL mine
- Build a 1x10MVA 132/22kV S/S at NPSPL mine

It is important to note that this scope will provide overall mine with a 5MVA 22kV new point of supply.

FIGURE 19: SINGLE LINE DIAGRAM OF NORMANDIE 132KV AND 88KV SYSTEM NETWORK



An approximate two-year waiting period is required from the date of application to Eskom for the provision of power to a new site. Negotiations are currently underway with Eskom regarding the power supply to the site, but the use of generators could also be considered as an interim supply measure.

Applications have already been submitted to Eskom, in order to enter this project into the Eskom Project pipeline.

5.5.3. WATER SUPPLY

A supply of water will be required for the offices and change houses as well as water for the mining operation. The nearest domestic supply will be from Dirkiesdorp. Alternatively, there are numerous natural water supplies in the area in the form of natural springs. Boreholes could also be drilled into aquifers to provide water. A current hydrological study is underway to assess the groundwater regime and potential supply sources.

It will be necessary to apply for both an Integrated Water Use License Application (IWULA) and an Integrated Waste Water Management Application (IWWMA).

The requisite applications will be lodged simultaneously with the Mining Right Application.

5.5.4. ACCESS ROADS

Currently the only road giving access to the Target Area is a gravel farm road. This road is approximately 12km in length and will require upgrading in order to be able to accommodate vehicles to-and-from the mine.

Road construction will, depending on the level of design selected, cost between R 550,000 and R 3,200,000 per kilometre. Aligned with the envisaged production output an average of 5,000 tons per day or 170 road-haul trucks will pass on this road on a daily basis. The cost for the upgrading of the road has been allowed for in the capital schedule.

Mindset recommends that the road to Piet Retief be used for transporting coal to the railway siding.

5.5.5. OFFICES, WORKSHOPS AND CHANGE HOUSES

In order to reduce the cost of final rehabilitation, it is recommended that all structures on site be of a portable nature.

The mine offices, workshops and change houses will therefore be in the form of portable containers specially adapted for these purposes. Placed on concrete plinths they will be easily removed at the end of the life of the mine. Approximate costs have been included in the Capital Estimate for the Infrastructure required.

5.5.6. MANPOWER

A total of 576 people will be required to operate the mine when in full production with 8 operating sections, based on a 2 shift operation.
The breakdown of the labour is indicated in the following table.

Section crew	328
Outbye and general services	121
Stone development sections	20
Engineering	49
Management	58
Total	**576**

Different shift systems will be considered to provide optimal efficiency and equipment utilization. Various systems will be investigated, amongst others a 2- or 3-shift system and a 24-hour system Full Calendar Operation (FULCO).

The FULCO system provides for a seven-day, 24-hour operation by utilising four teams of personnel on a rotational basis. The positives and negatives of the various systems will form part of a further study.

Mining personnel (operators and general labour) can be sourced from the nearby towns of Dirkiesdorp, Piet Retief and Wakkerstroom.

The more highly skilled personnel such as Artisans, Foremen, Shift- and Mine Overseers as well as Mining and Mechanical / Electrical Engineers will be more difficult to source, and must be sourced on a national level. Piet Retief is not situated in a recognised mining area and is a considerable distance away from large city centres or traditional mining areas, where the required skills will be easily sourced. The labour cost component is included in the mining cost.

5.6. OTHER FACTORS WHICH MIGHT INFLUENCE PRICE

An exchange rate of (United States of America Dollar) US$ 1 = ZAR 8.9 (South African Rand) was used to calculate revenue from the export fraction of the coal.

5.7. THE PRICE TO BE USED IN THE CASH FLOW FORECAST

A primary product price of US$ 85 per tonne based on the RBCT API4 Index and a secondary product price of ZAR 9.5/GJ or R199.5 per ton, based on current Eskom supply prices was used in the cash flow.

6. REGULATION 11.1 (F): APPLICABLE TIMEFRAMES AND SCHEDULING

6.1. LIFE OF MINE PLAN

The table shows the Mine Plan from 2015.

TABLE 16: UNDERGROUND MINE PLAN FOR YZERMYN

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Reserve (Mtpa)	0	1.008	1.726	2.361	2.369	2.377	2.377	2.384	2.377	2.377	2.369	2.384	2.202	1.643	0.364
Raw Ash	0	26.99	25.86	25.04	24.31	24.78	24.88	24.58	25.26	24.68	24.6	25.67	25.06	25.67	24.96
Raw Calorific Value	0	23.34	23.54	23.82	24	24.13	24.27	24.3	23.94	24.23	24.05	23.76	23.99	23.87	24
Raw Fixed Carbon	0	55.29	53.35	52.84	52.97	53.54	54.65	54.17	52.96	54.12	53.59	53.92	54.94	55.44	53.19
Raw Inherent Moisture	0	2.38	2.34	2.33	2.37	2.04	2.09	2.16	2.26	2.27	2.35	2.23	2.29	2.27	2.21
Raw RD	0	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Raw Sulphur	0	0.97	1.01	1.06	1.08	1.12	1.2	1.1	1.05	1.02	1.01	1.02	1.02	0.93	1.02
Raw Volatiles	0	15.33	18.45	19.8	20.35	19.64	18.4	19.09	19.53	18.93	19.46	18.18	17.71	16.63	19.64
ROM (tons)	0	0.958	1.640	2.243	2.251	2.258	2.258	2.265	2.258	2.258	2.251	2.265	2.092	1.561	0.346
Export Yield %	0	45.55	49.03	52.8	53.06	54.75	57.2	57.45	59.01	58.02	53.27	50.02	51.54	53.69	53.6
Export Quality (MJ/kg)	0	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Export Volatiles %	0	16.47	20.05	21.38	21.91	20.79	19.33	20.08	20.91	20.09	20.83	19.38	18.73	17.55	20.88
Middlings Yield %	0	35.53	31.26	27.58	29.63	26.85	24.23	24.92	20.43	23.68	29.31	30.87	31.65	28.22	26.93
Middlings Volatiles %	0	14.22	16.69	17.75	18.32	17.85	16.69	17.23	18.05	17.49	17.57	16.57	16.38	15.81	17.59

6.2. TIMEFRAMES AND SCHEDULING OF IMPLEMENTATION PHASES

The list below indicates the milestone dates for key activities during the development of the mine.

TABLE 17: MILESTONES TIMEFRAMES

ACTIVITY	TIMEFRAME
Tenders for plant and mining equipment	January 2014
Receive Mining Right	December 2013
Tender awards for plant and mining equipment	December 2013
Site establishment and preparation	March to June 2014
Cut-off drains, PCDs, fencing, power, water, etc.	June to October 2014
Adit construction	June to September 2014
Declines to coal intersections	October to March 2015
Equipping of conveyors, pipes, cables	April 2015
Shaft bottom establishment and ramp up	May to July 2015
Raise boring ventilation shaft	July 2015

6.2.1. DEVELOPMENT OF THE MINE AND COMMENCEMENT OF PRODUCTION

Prior to the granting of the Mining Right, the preparation of tenders for all mining equipment, plant, earthworks, fencing, Pollution Control Dam (PCD), buildings, civils, etc. will be finalised with a view to gather quotes from various suppliers.

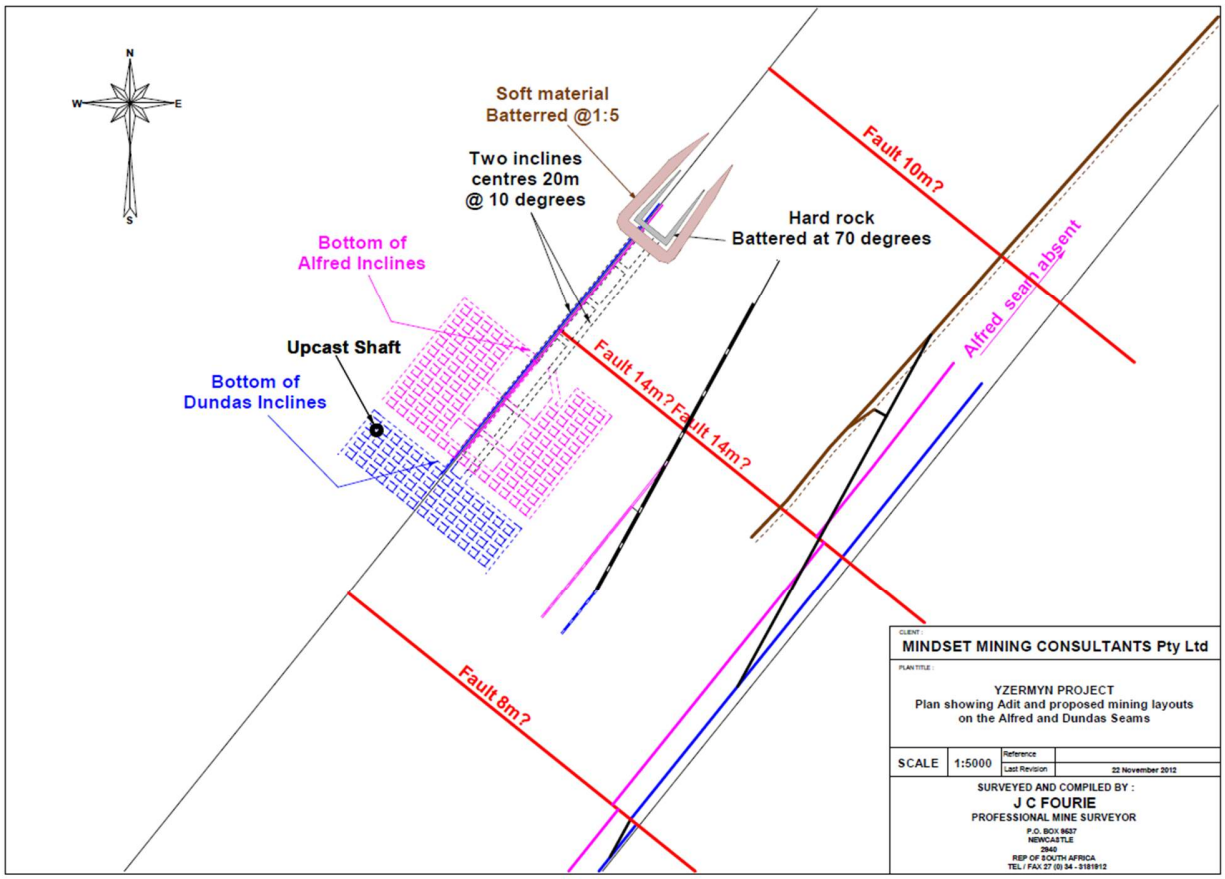
The actual granting of the Mining Right will lead to immediate granting of the tenders to the successful suppliers. Due to the market research having been conducted prior to the granting of the Mining Right, all of the suppliers will be expect to be ready for delivery at the soonest possible time. This will reduce the lead for the construction of the infrastructure.

Site establishment can immediately be accomplished. All earthworks and preparation for civils can commence, for which a four-month period is allowed for.

The focus area will be the development of the box-cut, for which establishment is scheduled to commence March 2014, with completion scheduled for September 2014.

Once the adit has been established, actual development of the coal seam by means of two 7m by 3m declines can commence. These declines will be at 10 degrees to allow for safe passage of vehicles and allow efficient conveyor operations. The layout is indicated in **Figure 20**.

FIGURE 20: PROPOSED MINING LAYOUT



6.2.2. PRODUCTION BUILD-UP PERIOD

Once the decline development has been completed, equipping one decline with conveyors, pipes, cables and any other required equipment, will require one month to finalise. Following the equipping of the declines, actual coaling can commence on both seams by means of opening up around shaft bottom.

This work is seen as coaling and the main development can be established within a month of commencement. This will allow for additional sections to be added as-and-when pit room becomes available.

The raise boring of the 107m ventilation shaft can commence once the area has been developed and will not interfere with actual mining operations, as it can be done in conjunction with coaling and should be complete in one month.

6.2.3. PRODUCTION DECLINE PERIOD

The LOM plan indicated that all production sections will be active right up to end of life of mine and there is no definitive time when actual closure will commence. Practically, when a mine reaches the last three years of its life, machines are kept alive by maintenance programs instead of following a replacement regime that may have been in existence.

As-and-when panels are completed, the equipment in that section will be reclaimed from the mine and the panel sealed off with explosion-resistant stoppings.

6.2.4. PRODUCTION FORECAST

TABLE 18: PRODUCTION FORECAST

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15
	2015	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
Reserve (Mtpa)	0	1.008	1.726	2.361	2.369	2.377	2.377	2.384	2.377	2.377	2.369	2.384	2.202	1.643	0.364
Raw Ash	0	26.99	25.86	25.04	24.31	24.78	24.88	24.58	25.26	24.68	24.6	25.67	25.06	25.67	24.96
Raw Calorific Value	0	23.34	23.54	23.82	24	24.13	24.27	24.3	23.94	24.23	24.05	23.76	23.99	23.87	24
Raw Fixed Carbon	0	55.29	53.35	52.84	52.97	53.54	54.65	54.17	52.96	54.12	53.59	53.92	54.94	55.44	53.19
Raw Inherent Moisture	0	2.38	2.34	2.33	2.37	2.04	2.09	2.16	2.26	2.27	2.35	2.23	2.29	2.27	2.21
Raw RD	0	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Raw Sulphur	0	0.97	1.01	1.06	1.08	1.12	1.2	1.1	1.05	1.02	1.01	1.02	1.02	0.93	1.02
Raw Volatiles	0	15.33	18.45	19.8	20.35	19.64	18.4	19.09	19.53	18.93	19.46	18.18	17.71	16.63	19.64
ROM (tons)	0	0.958	1.640	2.243	2.251	2.258	2.258	2.265	2.258	2.258	2.251	2.265	2.092	1.561	0.346
Export Yield %	0	45.55	49.03	52.8	53.06	54.75	57.2	57.45	59.01	58.02	53.27	50.02	51.54	53.69	53.6
Export Quality (MJ/kg)	0	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
Export Volatiles %	0	16.47	20.05	21.38	21.91	20.79	19.33	20.08	20.91	20.09	20.83	19.38	18.73	17.55	20.88
Middlings Yield %	0	35.53	31.26	27.58	29.63	26.85	24.23	24.92	20.43	23.68	29.31	30.87	31.65	28.22	26.93
Middlings Volatiles %	0	14.22	16.69	17.75	18.32	17.85	16.69	17.23	18.05	17.49	17.57	16.57	16.38	15.81	17.59

6.2.5. TECHNICALLY JUSTIFIED ESTIMATE

The table below 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.

TABLE 19: FACTORS TABLE

In Situ Mining Reserve	51.488
Mining Method Recovery	55%
Mining Reserve	28.318
Modelling Error	-5%
Geological Losses	-5%
Mining Losses	-2%
Dilution	5%
Surface Moisture	2%
ROM	26.902

7. REGULATION 11.1 (G) (I): COSTING OF THE MINING TECHNIQUE, MINING TECHNOLOGY AND PRODUCTION RATES

TABLE 20: ALFRED SEAM COSTING OF TECHNIQUE, TECHNOLOGY AND PRODUCTION RATES

	NO. OF SECTIONS	AVERAGE TONNES PER SECTION/MTH	RAND VALUE	TOTAL COST	RAND PER TONNE
Mining Consumables					
Coal Production	4	23,061	979,942	3,919,769	42.49
Brushing	4	23,061	157,021	628,084	6.81
Dyke Development	1	4,612	316,065	316,065	68.53
Total	**9**	**96,856**	**1,453,028**	**4,863,917**	**50.22**

TABLE 21: DUNDAS SEAM COSTING OF TECHNIQUE, TECHNOLOGY AND PRODUCTION RATES

	NO. OF SECTIONS	AVERAGE TONNES PER SECTION/MTH	RAND VALUE	TOTAL COST	RAND PER TONNE
Mining Consumables					
Coal Production	4	23,216	1,012,772	4,051,088	43.62
Brushing	4	23,216	181,554	726,216	7.82
Dyke Development	1	6,965	417,243	417,243	59.91
Total	**9**	**99,829**	**1,611,569**	**5,194,547**	**52.03**

The figures as indicated in the above table are derived from 1st principles in terms of production output whereas the cost numbers are based on an existing Mindset Database for similar operations.

7.1. MINE DESIGN MAP

The basic mine design and schematic mining schedule is added to this document as **Attachment 4**.

7.2. MINING METHOD'S IMPACT ON OPERATING COSTS

Currently, two methods are being considered for mining:

- Continuous Miners
- Conventional Drill and Blast

Although Continuous Miners have a higher productivity level than Conventional Drill and Blast, it requires more capital. It is also severely impacted upon when mining into dolerite intrusions. For this reason, it is recommended that a combination of both methods is used to obtain a good spread, providing flexibility of operations.

Because Drill and Blast methods are more labour intensive, the operating costs are higher than Continuous Miner operations, but provide other advantages such as manoeuvrability in geologically difficult areas.

The following table indicates the comparison of the unit operating cost of the two methods.

TABLE 22: COMPARATIVE OPERATING COSTS

MINING METHOD	UNIT OPERATING COST (R/T)
Drill and Blast	50.22
Continuous Miners	36.64

7.3. OVERVIEW OF MINING METHODS

Since the advent of the Continuous Miner, there has been a shift towards this mining method over the past 20 years in South Africa. This is due to this mining method lending itself to higher productivity levels. This method is suitable to a range of mining heights and is very useful in flat seams with good floor conditions.

Typically, panels will be designed with seven to 11 roads, depending on pillar centres, with board widths ranging from 5.5 to 6.5m, depending on depth. Due to the weight of the machine and its required passage over the floor whilst cutting, it requires a competent floor in order to ensure that the floor is not cut with the coal, thereby increasing contamination. In areas where shale is present in the floor, its interaction with water generally leads to decomposition of the floor, which poses problems for a Continuous Miner operation.

The floor in the reserve is varied with competent sandstone in certain areas and interlaminated sandstone / shale in other areas. Due to this, the recommendation has been made to combine the Continuous Miner and Conventional Drill and Blast mining methods.

There has been some recent development in Drill and Blast techniques in that a centre relieving hole can now be drilled with a 380 mm Auger. Standard shot-holes are then drilled around the auger holes. Once blasted coal is then loaded by battery driven scoops and transported to the feeder breaker for discharge onto the conveyor belt system out of the mine. The roof is systematically supported as the roadway advances in the same manner as is done with continuous miner sections.

The main advantage of this method is that it provides flexibility when encountering dykes and faults.

Panels are designed to achieve maximum extraction on advance and current planning does not include pillar extraction due to the undulating nature of the topography. Stooping has generally not been successful in the Natal Coalfields. When a panel reaches its limit, all equipment is removed and the panel is sealed with explosion resistant seals.

7.4. EQUIPMENT AND ACTIVITIES IMPACTING ON ELECTRICITY COSTS

The section equipment will consist of the following (excludes equipment for the processing plant):

TABLE 23: SECTION EQUIPMENT

CONTINUOUS MINER	DRILL AND BLAST
1 x Continuous Miner	1 x Face Drill
3 x Shuttle cars or Battery Scoops	1 x Feeder breaker
1 x Roof Bolter	1 x Transformer
1 x Feeder Breaker	1 x Section switches
1 x Transformer	3 x Scoops
1 x Section switches	1 x Roofbolter
1 x Pump	1 x Load Haul Dumper
1 x Load Haul Dumper	1 x Hilti Electric Drill System
	1 x Hilti Flameproof Panel
	1 x Pump

All the equipment listed above, barring the Load Haul Dumper (LHD) and the Battery Scoops are electrically driven.

7.5. EQUIPMENT AND ACTIVITIES IMPACTING ON FUEL COSTS

Each area of the mine will be equipped with Multiple Purpose Vehicles to deliver consumables to the working areas. Additionally each area will have a Stone Development Section dedicated to mine through dykes and faults and each of these sections will also be equipped with a Load Haul Dumper to clean the working faces.

Furthermore, the mine will be provided with supervisory Light Delivery Vehicles (LDVs) for transport of personnel as well as for stores materials handling.

All products from the mine will transported by means of 30-tonne road coal haul trucks from the mine site to the Piet Retief Rail Siding for dispatch.

7.6. EQUIPMENT AND ACTIVITIES IMPACTING ON COSTS OF STORES AND MATERIALS

The following items constitute the main consumables in underground mining:

- Continuous Miner picks and sleeves
- Roof bolts
- Stoneduster
- Diesel, oils, grease and other lubricants
- Tyres
- Conveyor belting and idlers
- Explosives
- Equipment spares
- Personal Protective Equipment (PPE)
- Cables and pipes
- Bricks, cement and other ventilation control mechanisms such as brattices

7.7. EQUIPMENT AND ACTIVITIES IMPACTING ON THE COST OF WATER

The main user of water in underground operations is the Continuous Miner, where water is used to allay dust at the cutting drum as well as for cooling the picks. Water is applied at all coal transfer points to allay dust as well as on travelling roads. The Beneficiation Plant on the other hand is the main water user on surface.

An initial water requirement for a 320-tonne per hour beneficiation plant is not expected to exceed 40m^3 per month. Once the plant has settled and is producing product, only top-up water is required to maintain adequate water levels at 150 litres per ton of coal washed. The remaining water in the plant is kept in closed circuit. Initial water requirements will be sourced from available ground water supply. Once mining commences, the recharge from the underground workings will be sufficient to supply all the water requirements for the operation.

It is expected that natural recharge in the underground workings will be sufficient for all underground operations. This water will be kept in closed circulation by making use of underground dams.

Pollution control dams will be established on the mine site, where all dirty water will be stored for re-use. This will also be dealt with through the required IWULA applications.

Provision will also be made for a water treatment plant on the mine site to ensure that all discharge water from the site meets acceptable quality levels.

7.8. OTHER ACTIVITIES IMPACTING ON COSTS

No other activities have been identified which will have a nominal impact on costs.

7.9. OPERATING COST FORECASTS

The Operating Costs indicated in the table below excludes the processing plant and labour costs and is indicative for the first 10 years of the life of the mine.

TABLE 24: SECTION EQUIPMENT

COST CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Fuel										
Electricity										
Water										
Stores and Materials	40,697,852	73,866,674	107,064,315	113,897,709	121,118,530	128,385,641	136,523,569	144,254,109	152,909,354	161,566,077
Other (specify) including Labour, Fuel, Electricity, Water	87,544,921	158,894,188	230,305,446	245,004,722	260,537,390	276,169,631	293,675,082	310,304,202	328,922,452	347,543,880
TOTAL COST	**128,242,773**	**232,760,862**	**337,369,761**	**358,902,431**	**381,655,920**	**404,555,272**	**430,198,652**	**454,558,311**	**481,831,806**	**509109958**

8. REGULATION 11.1 (G) (ii): COSTING OF THE TECHNOLOGICAL PROCESS APPLICABLE

8.1. HIGH-LEVEL DESCRIPTION OF THE PROCESSING PLANT

The Processing Plant will be a single stage wash plant producing a single export quality product (25.5MJ/kg air-dried) or a two-stage wash plant producing a high CV export quality product (27.5MJ/kg air dried) as well as a low CV Eskom type product (21.0MJ/kg air-dried).

8.2. BASIC PLANT DESIGN

The basic plant design is supported by a process flow diagram, with is added to this document as **Attachment 4**.

8.3. EFFICIENCY OF THE PROCESS

The results of the coal processing simulation modelling are indicated in the tables below.

TABLE 25: ALFRED SEAM – SINGLE STAGE WASH

								Yield %	Ash %	CV (MJ/kg)	S %	IM %	VM %	FC %
Primary Wash	Separation Density	1.737	Theor Yield %	86.9	Primary Wash	Feed		100.0	24.2	23.8	1.16	2.61	19.6	53.6
	Circ Mdeium RD	1.648	Organic Eff %	99.2%		Product		86.2	20.1	25.5	1.08	2.62	20.3	56.9
	Ecart Proable	0.026	Sink in Float %	2.4		Discard		13.8	49.9	13.3	1.67	2.51	14.6	32.9
	Avg Particale Size (mm)	12	Float in Sink %	1.1										
	Cyclone Diameter (mm)	800	Tot Misplaced %	3.5										
	Near dense +/- 0.1	7.6												
Secondary Wash	Separation Density	1.400	Theor Yield %	0.0	Secondary Wash	Feed		100.0	49.9	13.3	1.67	2.5	14.6	32.9
	Circ Mdeium RD	-	Organic Eff %	0.0%		Product		-	-	-	-	-	-	-
	Ecart Proable	0.021	Sink in Float %	-		Discard		100.0	49.9	13.3	1.67	2.5	14.6	32.9
	Avg Particale Size (mm)	12	Float in Sink %	-										
	Cyclone Diameter (mm)	800	Tot Misplaced %	-										
	Near dense +/- 0.1	-												
Spirals	Separation Density	1.752	Theor Yield %	88.8	Spirals	Feed		100.0	24.2	23.8	1.16	2.6	19.6	53.6
	Ecart Proable	0.142	Organic Eff %	85.8%		Product		76.3	21.4	25.0	1.12	2.6	20.2	55.8
	Near dense +/- 0.1	3.4	Sink in Float %	5.8		Discard		23.7	33.4	20.0	1.30	2.6	17.4	46.7
			Float in Sink %	15.3										
			Tot Misplaced %	21.2										

TABLE 26: ALFRED SEAM – DOUBLE STAGE WASH

								Yield %	Ash %	CV (MJ/kg)	S %	IM %	VM %	FC %
Primary Wash	Separation Density	1.538	Theor Yield %	59.2	Primary Wash	Feed		100.0	24.2	23.8	1.16	2.61	19.6	53.6
	Circ Mdeium RD	1.470	Organic Eff %	96.5%		Product		57.1	15.4	27.5	1.07	2.61	22.0	59.9
	Ecart Proable	0.023	Sink in Float %	4.2		Discard		42.9	35.9	18.9	1.29	2.60	16.3	45.2
	Avg Particale Size (mm)	12	Float in Sink %	4.3										
	Cyclone Diameter (mm)	800	Tot Misplaced %	8.5										
	Near dense +/- 0.1	46.4												
Secondary Wash	Separation Density	1.769	Theor Yield %	79.9	Secondary Wash	Feed		100.0	35.9	18.9	1.29	2.6	16.3	45.2
	Circ Mdeium RD	1.676	Organic Eff %	93.6%		Product		74.8	30.8	21.0	1.15	2.6	16.8	49.7
	Ecart Proable	0.027	Sink in Float %	8.2		Discard		25.2	51.2	12.8	1.72	2.5	14.5	31.8
	Avg Particale Size (mm)	12	Float in Sink %	2.1										
	Cyclone Diameter (mm)	800	Tot Misplaced %	10.3										
	Near dense +/- 0.1	8.0												
Spirals	Separation Density	1.752	Theor Yield %	88.8	Spirals	Feed		100.0	24.2	23.8	1.16	2.6	19.6	53.6
	Ecart Proable	0.142	Organic Eff %	85.8%		Product		76.3	21.4	25.0	1.12	2.6	20.2	55.8
	Near dense +/- 0.1	3.4	Sink in Float %	5.8		Discard		23.7	33.4	20.0	1.30	2.6	17.4	46.7
			Float in Sink %	15.3										
			Tot Misplaced %	21.2										

TABLE 27: DUNDAS SEAM – SINGLE STAGE WASH

							Yield %	Ash %	CV (MJ/kg)	S %	IM %	VM %	FC %
Primary Wash	Separation Density	1.703	Theor Yield %	87.9	**Primary Wash**	Feed	100.0	26.0	24.1	0.95	1.91	17.8	54.3
	Circ Mdeium RD	1.618	Organic Eff %	99.4%		Product	87.4	22.6	25.5	0.85	1.92	18.5	57.0
	Ecart Proable	0.026	Sink in Float %	1.5		Discard	12.6	49.6	14.7	1.63	1.82	13.1	35.5
	Avg Particale Size (mm)	12	Float in Sink %	1.7									
	Cyclone Diameter (mm)	800	Tot Misplaced %	3.2									
	Near dense +/- 0.1	22.6											
Secondary Wash	Separation Density	1.400	Theor Yield %	-0.0	**Secondary Wash**	Feed	100.0	49.6	14.7	1.63	1.82	13.1	35.5
	Circ Mdeium RD	-	Organic Eff %	0.0%		Product	-	-	-	-	-	-	-
	Ecart Proable	0.021	Sink in Float %	-		Discard	100.0	49.6	14.7	1.63	1.82	13.1	35.5
	Avg Particale Size (mm)	12	Float in Sink %	-									
	Cyclone Diameter (mm)	800	Tot Misplaced %	-									
	Near dense +/- 0.1	-											
Spirals	Separation Density	1.775	Theor Yield %	93.4	**Spirals**	Feed	100.0	26.0	24.1	0.95	1.91	17.8	54.3
	Ecart Proable	0.138	Organic Eff %	85.7%		Product	80.1	23.8	25.0	0.91	1.91	18.3	55.9
	Near dense +/- 0.1	1.1	Sink in Float %	3.7		Discard	19.9	34.7	20.6	1.08	1.90	15.7	47.7
			Float in Sink %	15.5									
			Tot Misplaced %	19.2									

TABLE 28: DUNDAS SEAM – DOUBLE STAGE WASH

							Yield %	Ash %	CV (MJ/kg)	S %	IM %	VM %	FC %
Primary Wash	Separation Density	1.565	Theor Yield %	63.3	**Primary Wash**	Feed	100.0	26.0	24.1	0.95	1.91	17.8	54.3
	Circ Mdeium RD	1.495	Organic Eff %	96.6%		Product	61.1	17.6	27.5	0.92	1.89	20.1	60.4
	Ecart Proable	0.024	Sink in Float %	4.9		Discard	38.9	39.2	18.8	0.99	1.94	14.2	44.6
	Avg Particale Size (mm)	12	Float in Sink %	4.1									
	Cyclone Diameter (mm)	800	Tot Misplaced %	9.0									
	Near dense +/- 0.1	44.7											
Secondary Wash	Separation Density	1.685	Theor Yield %	65.0	**Secondary Wash**	Feed	100.0	39.2	18.8	0.99	1.9	14.2	44.6
	Circ Mdeium RD	1.601	Organic Eff %	96.2%		Product	62.5	33.8	21.0	0.66	2.0	14.8	49.4
	Ecart Proable	0.025	Sink in Float %	5.5		Discard	37.5	48.2	15.2	1.52	1.8	13.2	36.7
	Avg Particale Size (mm)	12	Float in Sink %	5.8									
	Cyclone Diameter (mm)	800	Tot Misplaced %	11.3									
	Near dense +/- 0.1	62.3											
Spirals	Separation Density	1.775	Theor Yield %	93.4	**Spirals**	Feed	100.0	26.0	24.1	0.95	1.9	17.8	54.3
	Ecart Proable	0.138	Organic Eff %	85.7%		Product	80.1	23.8	25.0	0.91	1.9	18.3	55.9
	Near dense +/- 0.1	1.1	Sink in Float %	3.7		Discard	19.9	34.7	20.6	1.08	1.9	15.7	47.7
			Float in Sink %	15.5									
			Tot Misplaced %	19.2									

Reviewing the individual seam washability, both seams exhibit similar washability and can be washed together as a blended run-of-mine (ROM).

8.4. PRACTICAL YIELD AND COAL QUALITY RESULTS

The assumptions below were applied to calculating the quality results:

- ROM surface moisture: 2.0%
- Clean coal surface moisture (coarse product): 5%
- Clean coal surface moisture (fine coal): 11%
- Out-of-seam contamination: 6cm
- Out-of-seam contamination quality: (100% ash, 0 CV, 2.2 RD)
- 15% of ROM after being crushed to -50mm is <0.63mm
- 5% of ROM after being crushed to -50mm is <0.15mm (this fraction reports to discard)
- Two-stage wash blending assumptions:

- Spiral product is blended with cyclone product to produce a 5,900kcal/kg NAR
- Remaining spiral product is blended with the low CV secondary product

– Single-stage wash blending assumptions

Spiral product is blended with the cyclone product.

TABLE 29: ROM QUALITY (AS RECEIVED)

SEAM	CONTAMINATION %	CV (MJ/KG)	ASH %	S%	IM %	VM %	FC %
Alfred	5.0	22.2	27.5	1.08	2.42	18.2	49.9
Dundas	4.7	22.5	29	0.88	1.78	16.6	50.6
Average	4.8	22.3	28.2	0.98	2.1	17.4	50.3

TABLE 30: 2 STAGE CLEAN COAL QUALITY (AS RECEIVED / AIR-DRIED)

SEAM	RECOVERY YIELD (%)	CV (KCAL/KG NAR) (MJ/KG)	ASH %	S%	H2O %	VM %	FC %
Export (arb)	54.7	5,900	16.4	0.96	7.8	20.2	57.9
Eskom (adb)	26.5	21.5	31.3	0.9	2.3	16.1	50.3

TABLE 31: SINGLE STAGE CLEAN COAL QUALITY (AS RECEIVED / AIR-DRIED)

SEAM	RECOVERY YIELD %	CV (KCAL/KG NAR) (MJ/KG)	ASH %	S%	H2O %	VM %	FC %
Export (arb)	80.7	5,480	20.9	0.9	7.9	18.7	55.7

8.5. RAW COAL HANDLING

Conveyors deliver the ROM material from the underground operations to a 12,000mt open stockpile, ahead of the coal handling and preparation plant (CHPP). This is a 'live' stockpile with sufficient capacity to accommodate differences and fluctuations in the production rates between mining and the processing.

The ROM stockpile capacity is based on the following operating assumptions:

– Underground operations operate a two-shift per day operation for five days, followed by a single shift on the sixth day and no production on the seventh day

– Average ROM production per shift is 4,400mt (as received)

– Maximum ROM production per shift assumed to be 4,800mt (as received)

– Wash plant nominal capacity at 320mt/hr (air-dried), operating 360 days per year with 90% availability equates to an annual production of 2.5Mt (as received basis assuming 4.25% total moisture)

– The ROM stockpile capacity is to be designed to allow the wash plant to operate 22 hours per day, seven days per week, with an eight hour planned maintenance shutdown once a week

Underground feeder breakers will reduced the ROM to a nominal 200mm top size. It is the responsibility of mining to ensure that no ROM material is delivered to the ROM stockpile with a nominal top size greater than 200mm. The CHPP is not equipped to handle oversized material.

The ROM stockpile sits on top of a tunnel from which ROM material is drawn from the bottom of the ROM stockpile by tunnel vibratory feeders at a design rate of 327 mt/hr (arb) and fed onto a 50mm vibratory screen. The oversize material from the vibratory screen is fed to a crusher from where the crushed material is recycled back onto the 50mm vibratory screen.

To minimize the production of fines from the crusher it is assumed that the crusher design and set-up will result in an operating efficiency of 90%. This will result in a build-up of oversize material within the crusher circuit with the feed to the 50mm vibratory screen calculated to be 427 mt/hr (arb).

8.6. COAL CLEANING AND CLASSIFICATION

The dense medium section employs a conventional two-stage wash. The crushed ROM material (0x50mm) is fed to a de-sliming screen from which the coarse material (0.63 x 50mm) is fed to an 800mm diameter DMS cyclone module for a low gravity wash at a 1.49 RD. The underflow from the primary cyclone is fed to a secondary cyclone for a high gravity wash at 1.64 RD. This operation removes 16.6% of the material as coarse discard. This discard is dewatered over a 0.63mm drain and rinse screen before being conveyed to a 200mt silo from where it is loaded and transported to the dry-disposal discard dump by the appointed contractor.

On average 56.9% of the feed to the cyclone module reports to the primary cyclone overflow. Subsequent dewatering treatment, including a drain and rinse screen and screenbowl centrifuge, delivers a 27.5 MJ/kg (adb) thermal coal product. The secondary cyclone overflow after dewatering treatment delivers a 21.0 MJ/kg (adb) thermal coal product with an average recovery yield of 26.5%. Both products are conveyed to separate clean coal open stockpiles for subsequent delivery load-out, either by rail or road truck.

It is assumed that both products will be sold un-sized and that no dry product screening capacity is required.

The fine fraction (0 x 0.63mm) from the de-sliming screen is fed into a classifying cyclone to remove the ultra-fine material (-150 micron). A two-stage spiral plant upgrades the fine fraction (0.15 x 0.63mm). The ultra-fine material is fed to a thickener before being sent to a filter press. The resultant dry material is conveyed to the discard silo for dry disposal. The spiral plant removes 25.6% of the fine material as discard. This discard is de-watered over a 0.5mm dewatering screen before being conveyed to the discard silo for dry disposal.

On average 43.9% of the fine material feed to the spiral plant is recovered as a 25.0 MJ/kg (adb) coal product, which after dewatering and drying in a screenbowl centrifuge (estimated total moisture of 13%) is blended with the 27.5 MJ/kg (adb) cyclone product to produce a 5,900 kcal/kg NAR export quality thermal coal product. A further 30.5% is recovered as a middlings product, which after dewatering and drying is blended with the 21.0 MJ/kg (adb) secondary cyclone product to produce a low CV thermal coal product with 21.5MJ/kg (adb).

It is assumed that process water will be sourced from boreholes and dirty rainwater collected in the pollution control dams on the property. Water consumption is assumed to be 0.2m^3/mt ROM, which equates to a monthly water consumption of 40,000 m^3/month.

8.7. EQUIPMENT AND ACTIVITIES IMPACTING ON ELECTRICITY COSTS

The section equipment will consist of the following (excludes equipment for the processing plant):

TABLE 32: SECTION EQUIPMENT

CONTINUOUS MINER	DRILL AND BLAST
1 x Continuous Miner	1 x Face Drill
3 x Shuttle cars or Battery Scoops	1 x Feeder breaker
1 x Roof Bolter	1 x Transformer
1 x Feeder Breaker	1 x Section switches
1 x Transformer	3 x Scoops
1 x Section switches	1 x Roofbolter
1 x Pump	1 x Load Haul Dumper
1 x Load Haul Dumper	1 x Hilti Electric Drill System
	1 x Hilti Flameproof Panel
	1 x Pump

All the equipment listed above, barring the Load Haul Dumper (LHD) and the Battery Scoops are electrically driven.

The equipment below will form part of the equipment costs:

- Raw Coal Handling
  - 2 x vibratory feeders
  - 1 x double roll crusher
  - Feed conveyor (walkways / weightometer)
  - Re-circulating conveyor
  - Dry vibratory screen (single deck)

- De-sliming
  - Feed conveyor (walkways / weightometer / automatic swing sampler)
  - Wet vibratory de-sliming screen
  - Underflow tank
  - De-sliming slurry pump
  - Classifying cyclone
  - Primary DMS feed conveyor

- Spiral Plant
  - First stage washing
  - Second Stage washing
  - 3 x fine slurry pumps
  - 3 x fine product dewatering screens
  - 3 x tanks
  - 3 x dewatering cyclones
  - 2 x Screenbowl centrifuges

- Ultra-fines
  - Thickener underflow pump
  - Flocculent addition
  - Lime/acid neutralizing agent dosing
  - Process Water
  - Process water tank
  - Process water pump

- DMS Cyclone Plant
  - Mixing tank
  - 2 x Cyclone feed pumps
  - 2 x DMS cyclones
  - 3 x Drain & rinse screen

- 1 x Drain screen
- 2 x Heavy media pumps
- Header box
- Wet drum magnet
- Demagnetising coil
- Spillage pump
- 2 x Centrifuges

– Stockpiling
  - Product conveyor (weightometer / automatic sampler)
  - Middlings conveyor (weightometer / automatic sampler)
  - Discard conveyor (weightometer / manual sampler)
  - Discard bin

– Extras
  - Density controller
  - 2 x MCC
  - Tramp metal over belt magnet

8.8. EQUIPMENT AND ACTIVITIES IMPACTING ON FUEL COSTS

Each area of the mine will be equipped with Multiple Purpose Vehicles to deliver consumables to the working areas. Additionally each area will have a Stone Development Section dedicated to mine through dykes and faults and each of these sections will also be equipped with a Load Haul Dumper to clean the working faces.

Furthermore, the mine will be provided with supervisory Light Delivery Vehicles (LDVs) for transport of personnel as well as for stores materials handling.

All products from the mine will transported by means of 30-tonne road coal haul trucks from the mine site to the Piet Retief Rail Siding for dispatch.

8.9. EQUIPMENT AND ACTIVITIES IMPACTING ON STORES AND MATERIALS COSTS

The following items constitute the main consumables in underground mining:

- Continuous Miner picks and sleeves
- Roof bolts
- Stoneduster
- Diesel, oils, grease and other lubricants
- Tyres
- Conveyor belting and idlers
- Explosives
- Equipment spares
- Personal Protective Equipment (PPE)
- Cables and pipes
- Bricks, cement and other ventilation control mechanisms such as brattices

8.10. EQUIPMENT AND ACTIVITIES IMPACTING ON THE COST OF WATER

The main user of water in underground operations is the Continuous Miner, where water is used to allay dust at the cutting drum as well as for cooling the picks. Water is applied at all coal transfer points to allay dust as well as on travelling roads. The Beneficiation Plant on the other hand is the main water user on surface.

An initial water requirement for a 320-tonne per hour beneficiation plant is not expected to exceed 40m^3 total requirement. Once the plant has settled and is producing product, only top-up water is required to maintain adequate water levels at 150 litres per ton of coal washed. The remaining water in the plant is kept in closed circuit. Initial water requirements will be sourced from available ground water supply. Once mining commences,

the recharge from the underground workings will be sufficient to supply all the water requirements for the operation.

It is expected that natural recharge in the underground workings will be sufficient for all underground operations. This water will be kept in closed circulation by making use of underground dams.

Pollution control dams will be established on the mine site, where all dirty water will be stored for re-use. This will also be dealt with through the required IWULA applications.

Provision will also be made for a water treatment plant on the mine site to ensure that all discharge water from the site meets acceptable quality levels.

8.11. OTHER ACTIVITIES IMPACTING ON COSTS

No other activities have been identified which will have a nominal impact on costs.

8.12. PROCESSING PLANT OPERATING COSTS FORECAST

The Operating Costs indicated in the table below excludes the processing plant and labour costs and is indicative for the first 10 years of the life of the mine.

TABLE 33: PROCESSING PLANT OPERATING COSTS

COST CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Fuel										
Electricity										
Water										
Stores and Materials										
Other (specify)										
TOTAL COST	**14,367,328**	**15,229,368**	**16,143,130**	**17,111,718**	**18,138,421**	**19,226,726**	**20,380,330**	**21,603,150**	**22,899,339**	**24273299**

9. REGULATION 11 (1) (G) (iii): COSTING FOR TECHNICAL SKILLS AND EXPERTISE

The tables below indicate the costing of all the technical skills and expertise required to staff and operate the mine. The tables indicate the cost per job category per month.

TABLE 34: MINING BUDGET – SHIFT CREWS ALFRED SEAM

Mining Budget	Shift Crews Alfred Section 1 Shift 1	Shift 2	Total	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Shift Boss	0.5	0.5	1	0	1	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	R 56,556.67
Miner	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 102,322.92
Team leaders	1	1	2	0	2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 25,539.80
Shuttle car	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Coal cutter	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
Roofbolter	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
Electric Drill	0	0	0		0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Belt Drive Attendant	0	0	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Sweeper	1	1	2		2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Pump Attendant	1	1	2		2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Feederbreaker Operator	0	1	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Loader Operator	0		0		0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Scoop Operator	3	3	6	1	7	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 63,947.73
LHD Operator	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Blasting Attendants	3	3	6	1	7	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 55,008.80
Face Drill Operator	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
MPV Operators	0.5	0.5	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
Ventilation/ General	1	1	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Total	18	19	37	4	41										R 331,968.29

TABLE 35: MINING BUDGET – SHIFT CREWS DUNDAS SEAM

Mining Budget	Dundas Section 1 Shift 1	Dundas Section 1 Shift 2	Total	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Shift Boss	0.5	0.5	1	0	1	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	R 56,556.67
Miner	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 102,322.92
Team leaders	1	1	2	0	2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 25,539.80
Shuttle car	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Coal cutter	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
Roofbolter	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
Electric Drill	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Belt Drive Attendant	0	0	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Sweeper	1	1	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Pump Attendant	1	1	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Feederbreaker Operator	0	1	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Loader Operator	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Scoop Operator	3	3	6	1	7	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 63,947.73
LHD Operator	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Blasting Attendants	3	3	6	1	7	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 55,008.80
Face Drill Operator	2	2	4	0.5	4.5	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 41,109.26
MPV Operators	0.5	0.5	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
Ventilation/ General	1	1	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Total	18	19	37	4	41	R 0.00									R 331,968.29

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Department:
Minerals and Energy
REPUBLIC OF SOUTH AFRICA

TABLE 36: MINING BUDGET – OUTBYE – ALFRED SEAM

Mining Budget	Out-bye	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Outbye UG Mining General													
Team Leader	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Hilti Operators	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Brick layers	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Brick Layers Assistant	4	1	5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 32,743.33
MPV / Stonedust Operators	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
Bit Grinders	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Tractor Driver's Assistant	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Total	10	1	11										R 84,739.75
Outby UG Mining Belts													
Beltsman	1	0	1	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	R 15,553.08
Belt Team leader	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Belt Drive Operators	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Extention/ Maintenance	14	2	16	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 125,734.40
Total	16	2	18										R 154,057.38
Mining Overheads													
Mine Overseer Clerk	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Office Cleaner	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Sanitation	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Sewage Plant Attendant	1		1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Change house sup	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
Change House Att.	2	0.5	2.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 16,371.67
Laundry	2	0.5	2.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 16,371.67
Total	8	1	9										R 61,524.72
Shaft Overheads/ Leaners	0	0	0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83		
Control Room Operators	2	0	2	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 81,858.33
Lamproom Attendant	2	1	3	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 38,309.70
Total	4	1	5										R 120,168.03
Total Mining (Ex Eng)	38	5	43									**Grand Total P/M**	R 420,489.89

TABLE 37: MINING BUDGET – OUTBYE – DUNDAS SEAM

Mining Budget	Out-bye	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Outbye UG Mining General													
Team Leader	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Hilti Operators	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Brick layers	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Brick Layers Assistant	4	1	5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 32,743.33
MPV / Stonedust Operators	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
Bit Grinders	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Tractor Driver's Assistant	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Total	10	1	11										R 84,739.75
Outby UG Mining Belts													
Beltsman	1	0	1	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	R 15,553.08
Belt Team leader	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Belt Drive Operators	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Extention/ Maintenance	14	2	16	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 125,734.40
Total	16	2	18										R 154,057.38
Mining Overheads													
Mine Overseer Clerk	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Office Cleaner	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Sanitation	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Sewage Plant Attendant	1	0	1	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 6,548.67
Change house sup	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
Change House Att.	2	0.5	2.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 16,371.67
Laundry	2	0.5	2.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	R 16,371.67
Total	8	1	9										R 61,524.72
Shaft Overheads/ Leaners	0	0	0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83		
Control Room Ops	2	0	2	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 81,858.33
Lampromm Attendant	2	1	3	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 38,309.70
Total	4	1	5										R 120,168.03
Total Mining (Ex Eng)	38	5	43									**Grand Total P/M**	R 420,489.89

TABLE 38: MINING BUDGET – DEVELOPMENT SECTION – ALFRED SEAM

Mining Budget – Development Section	Stone Dev.	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Miner	1	0	1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 40,929.17
Team leaders	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Shuttle car	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Auger	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Roofbolter	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
Electric Drill	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Belt Drive Attendant	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Sweeper	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Pump Attendant	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Feederbreaker Operator	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Loader Operator	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Scoop Operator	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
LHD Operator	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Blasting Attendants	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Face Drill Operator	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
MPV Operators	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Ventilation/ General	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Total	10	0	10										R 122,951.22

TABLE 39: MINING BUDGET – DEVELOPMENT SECTION – DUNDAS SEAM

Mining Budget	Stone Dev.	L & R	Total	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Miner	1	0	1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	R 40,929.17
Team leaders	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	R 12,769.90
Shuttle car	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Auger	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Roofbolter	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
Electric Drill	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Belt Drive Attendant	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Belt Sweeper	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Pump Attendant	1	0	1	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 7,858.40
Feederbreaker Operator	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Loader Operator	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Scoop Operator	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 9,135.39
LHD Operator	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Blasting Attendants	2	0	2	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 15,716.80
Face Drill Operator	2	0	2	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 18,270.78
MPV Operators	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	R 0.00
Ventilation/ General	0	0	0	R 5,280.00	R 528.00	R 528.00	R 264.00	R 369.60	R 52.80	R 396.00	R 440.00	R 7,858.40	R 0.00
Total	10	0	10										R 122,951.22

TABLE 40: MINING BUDGET – ENGINEERING – ALFRED SEAM

	Shift Crews													
	Alfred		Total	L & R	Total Eng	**Salary**	**Housing**	**Travelling**	**Shift Allowance**	**Pension**	**UIF**	**Medical Aid**	**Bonus**	**Total P/Person**	**Grand Total**
	Section 1														
	Shift 1	Shift 2													
Section Foreman	0.5	0.5	1		1	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 56,556.67**
Electrician	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Fitter	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Mechanic			0		0	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 0.00**
Boilermaker			0		0	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 0.00**
Electrician – Apprentice	0.25	0.25	0.5		0.5	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 7,776.54**
Fitter – Apprentice	0.25	0.25	0.5		0.5	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 7,776.54**
Boilermaker – Apprentice			0		0		R 0.00	R 0.00				R 0.00			
Electrician – Assistant	0	0	0	0	0	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 0.00**
Battery Bay Attendant	0.5	0.5	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 9,135.39**
Lamproom Attendant			0		0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 0.00**
Fitter – Assistant	1	1	2		2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Boilermaker Assistant			0		0	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 0.00**
Cable Shop Repairers			0		0		R 0.00	R 0.00				R 0.00			
Handyman			0		0	R 17,069.40	R 1,706.94	R 1,706.94	R 853.47	R 1,194.86	R 170.69	R 1,280.21	R 1,422.45	R 25,404.96	**R 0.00**
Control Room Supervisor			0		0	R 28,252.80	R 2,825.28	R 2,825.28	R 1,412.64	R 1,977.70	R 282.53	R 2,118.96	R 2,354.40	R 42,049.58	**R 0.00**
Control Room			0		0		R 0.00	R 0.00				R 0.00	R 0.00		**R 0.00**
General Assistants			0		0	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	**R 0.00**
Total	**4.5**	**4.5**	**9**	**1**	**10**									**Total Engineering**	**R 311,430.77**

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REPUBLIC OF SOUTH AFRICA

TABLE 41: MINING BUDGET – ENGINEERING – ALFRED SEAM

Description	Workshop	L & R	Total Eng	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Foreman Electrical	0.5		0.5	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 28,278.33**
Foreman Mechanical	0.5		0.5	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 28,278.33**
Electrician	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Fitter	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Mechanic	1		1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 40,929.17**
Boilermaker	1		1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 40,929.17**
Electrician – Apprentice	0		0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Fitter – Apprentice	0		0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Boilermaker – Apprentice	0		0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Electrician – Assistant	2		2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Battery Bay Attendant	0		0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 0.00**
Fitter – Assistant	2		2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Boilermaker Assistant	1		1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 12,769.90**
Cable Shop Repairers	1		1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 12,769.90**
Handyman	0		0	R 17,069.40	R 1,706.94	R 1,706.94	R 853.47	R 1,194.86	R 170.69	R 1,280.21	R 1,422.45	R 25,404.96	**R 0.00**
Workshop Cleaner	0.5		0.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	**R 3,274.33**
Total	**13.5**	**1**	**14.5**									**Total Engineering**	**R 422,954.57**

TABLE 42: MINING BUDGET – ENGINEERING – DUNDAS SEAM

	Shift Crews														
	Dundas		Total	L & R	Total Eng	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
	Section 1														
	Shift 1	Shift 2													R 0.00
Section Foreman	0.5	0.5	1	0	1	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 56,556.67**
Electrician	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Fitter	1	1	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Mechanic	0	0	0	0	0	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 0.00**
Boilermaker	0	0	0	0	0	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 0.00**
Electrician – Apprentice	0.25	0.25	0.5	0	0.5	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 7,776.54**
Fitter – Apprentice	0.25	0.25	0.5	0	0.5	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 7,776.54**
Boilermaker – Apprentice	0	0	0	0	0	R 0.00	R 0.00	R 0.00				R 0.00			
Electrician – Assistant	0	0	0	0	0	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 0.00**
Battery Bay Attendant	0.5	0.5	1	0	1	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 9,135.39**
Lamproom Attendant	0	0	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 0.00**
Fitter – Assistant	1	1	2	0	2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Boilermaker Assistant	0	0	0	0	0	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 0.00**
Cable Shop Repairers	0	0	0	0	0	R 0.00	R 0.00	R 0.00				R 0.00			
Handyman	0	0	0	0	0	R 17,069.40	R 1,706.94	R 1,706.94	R 853.47	R 1,194.86	R 170.69	R 1,280.21	R 1,422.45	R 25,404.96	**R 0.00**
Control Room Supervisor	0	0	0	0	0	R 28,252.80	R 2,825.28	R 2,825.28	R 1,412.64	R 1,977.70	R 282.53	R 2,118.96	R 2,354.40	R 42,049.58	**R 0.00**
Control Room	0	0	0	0	0	R 0.00	R 0.00	R 0.00				R 0.00	R 0.00		**R 0.00**
General Assistants	0	0	0	0	0	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	**R 0.00**
Total	4.5	4.5	9	1	10									**Total Engineering**	**R 311,430.77**

TABLE 43: MINING BUDGET – ENGINEERING – DUNDAS SEAM

Description	Workshop	L & R	Total Eng	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Foreman Electrical	0.5	0	0.5	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 28,278.33**
Foreman Mechanical	0.5	0	0.5	R 38,000.00	R 3,800.00	R 3,800.00	R 1,900.00	R 2,660.00	R 380.00	R 2,850.00	R 3,166.67	R 56,556.67	**R 28,278.33**
Electrician	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Fitter	2	0.5	2.5	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 102,322.92**
Mechanic	1	0	1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 40,929.17**
Boilermaker	1	0	1	R 27,500.00	R 2,750.00	R 2,750.00	R 1,375.00	R 1,925.00	R 275.00	R 2,062.50	R 2,291.67	R 40,929.17	**R 40,929.17**
Electrician – Apprentice	0	0	0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Fitter – Apprentice	0	0	0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Boilermaker – Apprentice	0	0	0	R 10,450.00	R 1,045.00	R 1,045.00	R 522.50	R 731.50	R 104.50	R 783.75	R 870.83	R 15,553.08	**R 0.00**
Electrician – Assistant	2	0	2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Battery Bay Attendant	0	0	0	R 6,138.00	R 613.80	R 613.80	R 306.90	R 429.66	R 61.38	R 460.35	R 511.50	R 9,135.39	**R 0.00**
Fitter – Assistant	2	0	2	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 25,539.80**
Boilermaker Assistant	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 12,769.90**
Cable Shop Repairers	1	0	1	R 8,580.00	R 858.00	R 858.00	R 429.00	R 600.60	R 85.80	R 643.50	R 715.00	R 12,769.90	**R 12,769.90**
Handyman	0	0	0	R 17,069.40	R 1,706.94	R 1,706.94	R 853.47	R 1,194.86	R 170.69	R 1,280.21	R 1,422.45	R 25,404.96	**R 0.00**
Workshop Cleaner	0.5	0	0.5	R 4,400.00	R 440.00	R 440.00	R 220.00	R 308.00	R 44.00	R 330.00	R 366.67	R 6,548.67	**R 3,274.33**
Total	**13.5**	**1**	**14.5**									**Total Engineering**	**R 422,954.57**

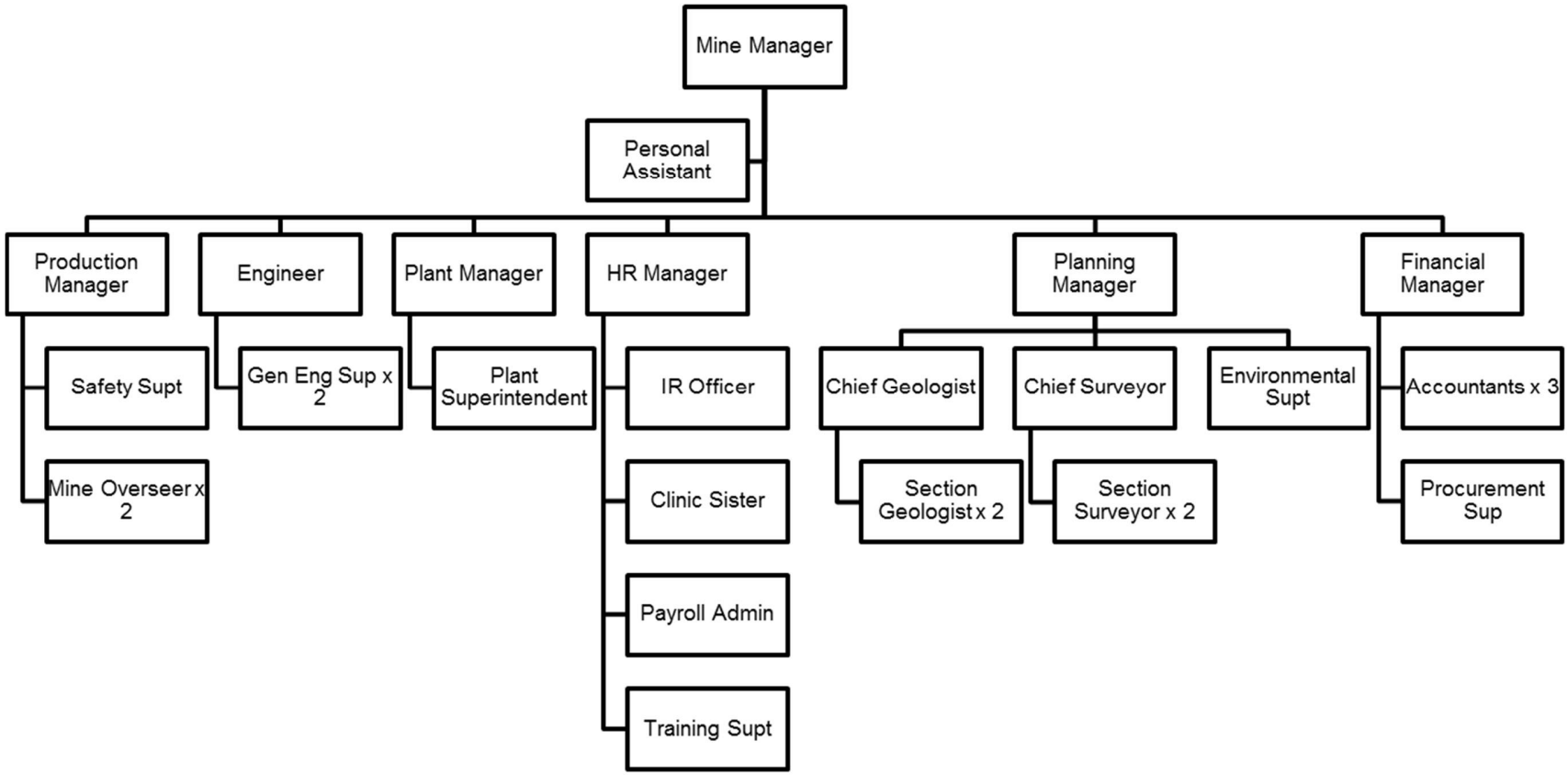
TABLE 44: MINING BUDGET – MANAGEMENT BUDGET

Management Budget	No.	Salary	Housing	Travelling	Shift Allowance	Pension	UIF	Medical Aid	Bonus	Total P/Person	Grand Total
Manager	1	130,000	13,000	13,000	-	9,100	1,300	9,750	10,833	186,983	186,983
Engineer	1	95,000	9,500	9,500	-	6,650	950	7,125	7,917	136,642	136,642
Production Manager	1	95,000	9,500	9,500	-	6,650	950	7,125	7,917	136,642	136,642
Financial Manager	1	55,000	5,500	5,500	-	3,850	550	4,125	4,583	79,108	79,108
Accountants	3	25,000	2,500	2,500		1,750	250	1,875	2,083	35,958	107,875
HR Manager	1	55,000	5,500	5,500	-	3,850	550	4,125	4,583	79,108	79,108
Geologist	1	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	86,300
Geologist Assistant	2	35,000	3,500	3,500	-	2,450	350	2,625	2,917	50,342	100,683
Planning Manager	1	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	86,300
Planning Manager Assistant	2	35,000	3,500	3,500	-	2,450	350	2,625	2,917	50,342	100,683
Ventilation Superintendent	1	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	86,300
Ventilation Assistants	4	20,000	2,000	2,000	-	1,400	200	1,500	1,667	28,767	115,067
Chief Surveyor	1	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	86,300
Surveyors	2	35,000	3,500	3,500	-	2,450	350	2,625	2,917	50,342	100,683
Surveyor Assistants	4	6,138	614	614	-	430	61	460	512	8,828	35,314
Mine overseer	2	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	172,600
General Engineering Sup	2	60,000	6,000	6,000	-	4,200	600	4,500	5,000	86,300	172,600
Environmental Officer	1	55,000	5,500	5,500	-	3,850	550	4,125	4,583	79,108	79,108
Procurement Officer	1	55,000	5,500	5,500	-	3,850	550	4,125	4,583	79,108	79,108
Receiving Clerk	2	5,280	528	528	-	370	53	396	440	7,594	15,189
Despatching Clerk	2	5,280	528	528		370	53	396	440	7,594	15,189
Time Office Sup	1	35,000	3,500	3,500		2,450	350	2,625	2,917	50,342	50,342
Time Keepers	3	6,138	614	614		430	61	460	512	8,828	26,485
Time and Attendance Clerks	2	6,138	614	614		430	61	460	512	8,828	17,657
IR Officers	2	5,280	528	528		370	53	396	440	7,594	15,189
PA and Typist	2	20,000	2,000	2,000		1,400	200	1,500	1,667	28,767	57,533
Chief Training Officer	1	55,000	5,500	5,500		3,850	550	4,125	4,583	79,108	79,108
Training Officers	3	20,000	2,000	2,000		1,400	200	1,500	1,667	28,767	86,300
Clinic Sister	1	35,000	3,500	3,500		2,450	350	2,625	2,917	50,342	50,342
Occupational Health Officers	4	20,000	2,000	2,000		1,400	200	1,500	1,667	28,767	115,067
Safety Superintendent	1	60,000	6,000	6,000		4,200	600	4,500	5,000	86,300	86,300
Safety Officer	2	35,000	3,500	3,500		2,450	350	2,625	2,917	50,342	100,683
Total	**58**		**136,425**	**136,425**	**-**	**95,498**	**13,643**	**102,319**	**113,688**	**1,962,252**	**2,742,789**

9.1. ORGANISATIONAL STRUCTURE

The proposed organisational structure for the mine is indicated in **Figure 21**.

FIGURE 21: PROPOSED MINE ORGANISATIONAL STRUCTURE



9.2. DESCRIPTION OF POSITIONS

The list indicated below represents the positions requiring certificates of competency. The positions also indicate under which skills category it has been budgeted for.

–	Mine Manager	–	Management
–	Engineer	–	Management
–	Production Manager	–	Management
–	Ventilation Superintendent	–	Management
–	Surveyors	–	Management
–	Mine Overseer	–	Management
–	Shift Boss And Miner	–	Section Labour.

9.3. DESCRIPTION OF OUTSOURCED MINING OPERATIONS

The following mining operations will be outsourced to Suppliers:

- Laboratory
- Security
- Discard Dump Management
- Rock Engineer

9.4. COSTING OF SKILLS

The tables below indicate the costing of the skills categories in the mining operation to indicate that technical competence has been budgeted for.

TABLE 45: MINE EMPLOYEES – PERSONNEL ON THE MINE'S PAYROLL (YEARS 1 TO 5) (MONTHLY REMUNERATION)

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										
Senior Management	5	565,059	6	678,071.14	7	725,536	7	776,324	7	830,666
Professional qualified and experienced specialist and mid-management	8	506,293	12	759,440	15	812,601	15	869,483	15	930,347
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	67	2,339,377	94	3,282,112	137	3,511,859	137	3,757,690	137	4,020,728
Semi-skilled and discretionary decision making	200	1,918,712	313	3,002,785	417	3,212,980	417	3,437,888	417	3,678,540
Non-permanent Employees										
TOTAL EXPENDITURE	**280**	**5,116,028**	**425**	**7,722,407**	**576**	**8,262,976**	**576**	**8,841,384**	**576**	**9,460,281**

TABLE 46: MINE EMPLOYEES – PERSONNEL ON THE MINE'S PAYROLL (YEARS 6 TO 10) (MONTHLY REMUNERATION)

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										
Senior Management	7	888,813	7	951,030	7	1,017,602	7	1,088,834	7	1,165,052
Professional qualified and experienced specialist and mid-management	15	995,471	15	1,065,154	15	1,139,715	15	1,219,495	15	1,304,859
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	137	4,302,179	137	4,603,331	137	4,925,564	137	5,270,354	137	5,639,279
Semi-skilled and discretionary decision making	417	3,936,038	417	4,211,561	417	4,506,370	417	4,821,816	417	5,159,343
Non-permanent Employees										
TOTAL EXPENDITURE	576	**10,122,501**	576	**10,831,076**	576	**11,589,251**	576	**12,400,499**	576	**13,268,534**

Currently no employee numbers for Sub-contractors are available.

TABLE 47: SUBCONTRACTOR EMPLOYEES

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Top Management										
Senior Management										
Professional qualified and experienced specialist and mid-management										
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents										
Semi-skilled and discretionary decision making										
Non-permanent Employees										
TOTAL CONTRACT BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET	BUDGET
(Not only salaries and wages)										

TABLE 48: SERVICE PROVIDERS

LIST OF SPECIALIST, CONSULTANTS AND SERVICE PROVIDERS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Laboratory	1,800,000.00	1,908,000.00	2,022,480.00	2,143,828.80	2,272,458.52	2,408,806.03	2,553,334.39	2,706,534.45	2,868,926.51	3,041,062.10
Security	2,400,000.00	2,544,000.00	2,696,640.00	2,858,438.40	3,029,944.70	3,211,741.38	3,404,445.90	3,608,712.65	3,825,235.40	4,054,749.52
Rock Engineer	600,000.00	636,000.00	674,160.00	714,609.60	757,486.17	802,935.34	851,111.46	902,178.14	956,308.82	1,013,687.34
Discard Dump Management	2,400,000.00	2,544,000.00	2,696,640.00	2,858,438.40	3,029,944.70	3,211,741.38	3,404,445.86	3,608,712.61	3,825,235.36	4,054,749.48
TOTAL BUDGET	**7,200,000.00**	**7,632,000.00**	**8,089,920.00**	**8,575,315.20**	**9,089,834.09**	**9,635,224.13**	**10,213,337.61**	**10,826,137.85**	**11,475,706.09**	**12,164,248.44**

TABLE 49: TOTAL COST OF ALL TECHNICAL SKILLS AND SERVICES REQUIRED

CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
In House Skills And Services	1,186,840.84	1,258,051.29	1,333,534.37	1,413,546.43	1,498,359.21	1,588,260.76	1,683,556.40	1,784,569.78	1,891,643.97	2,005,142.60
Skills And Services Provided By Sub Contractors										
Skills And Services Provided By Service Providers										
Total Budget For Technical Skills And Competence	**1,186,840.84**	**1,258,051.29**	**1,333,534.37**	**1,413,546.43**	**1,498,359.21**	**1,588,260.76**	**1,683,556.40**	**1,784,569.78**	**1,891,643.97**	**2,005,142.60**

10. REGULATION (11) (1) (G) (iv): DETAILS AND COSTING OF REGULATORY REQUIREMENTS

10.1. ENVIRONMENTAL COST FORECAST

10.1.1. REHABILITATION COST ESTIMATE

TABLE 50: CALCULATION OF THE QUANTUM

CALCULATION OF THE QUANTUM							
Mine:	Yzermyn			**Location:**	Dirkiesdorp		
Evaluators:	Mindset Mining Consultants			**Date:**			Jan-13
No	**Description**	**Unit**	**A**	**B**	**C**	**D**	**E=A*B*C**
			Quantity	**Master rate**	**Multiplication factor**	**Weighting factor 1**	***D** **Amount (rands)**
			Step 4.5	**Step 4.3**	**Step 4.3**	**Step 4.4**	
1	Dismantling of processing plant and related structures (Including overland conveyors and power lines)	m^3	10000	6.82	1	1	68200
2(A)	Demolition of steel buildings and structures	m^2	250	95	1	1	23750
2(B)	Demolition of reinforced concrete buildings and structures	m^2	80	140	1	1	11200
3	Rehabilitation of access roads	m^2	6000	17	1	1	102000
4(A)	Demolition and rehabilitation of electrified railway lines	m		N/A			
4(B)	Demolition and rehabilitation of non-electrified railway lines	m		N/A			
5	Demolition of housing and/or administration facilities	m^2	365	190	1	1	69350
6	Opencast rehabilitation including final voids and ramps	ha	0.83	99600	0.04	1	3306.72
7	Sealing of shafts, adits and inclines	m^3	42	51	1	1	2142
8(A)	Rehabilitation of overburden and spoils	ha	4	66400	1	1	265600
8(B)	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt-producing waste)	ha	1	82700	1	1	82700
8(C)	Rehabilitation of processing waste deposits and evaporation ponds (acidic, metal-rich waste)	ha	1	240200	0.59	1	141718
9	Rehabilitation of subsided areas	ha		N/A			
10	General surface rehabilitation	ha	10	52600	1	1	526000
11	River diversions	ha		N/A			
12	Fencing	m	16000	60	1	1	960000
13	Water management	ha	10	20000	0.6	1	120000
14	2 to 3 years of maintenance and aftercare	ha	10	7000	1	1	70000
15 (A)	Specialist study	Sum					
15 (B)	Specialist study	Sum					
Sub Total 1 (Sum of items 1 to 15 above)							2,445,967
1	Preliminary and General						1 305,745.84
2	Administration and supervision costs						146,758.00
3	Engineering drawings and specifications						48,919.33
4	Engineering and procurement of specialist work						61,149.17
5	Development of a closure plan						61,149.17
6	Final groundwater modelling						
Sub Total 2 (Subtotal 1 plus sum of management and administrative items, 1 to 6 above)							3,069,688.23

7 Contingency 10.0% of Subtotal 1	244,596.67
Sub Total 3 (Subtotal 2 plus contingency)	3,314,284.91
VAT (14%)	463,999.89
GRAND TOTAL (Subtotal 3 plus VAT)	3,778,284.79

10.1.2. SOCIO-ECONOMIC IMPACT COST ESTIMATE

The risk of compensation being required for persons directly affected by the mining operations is anticipated to be high as there are people living within the project footprint. The evaluation of the extent of the settlement within the project footprint, as well as an assets inventory etc. has not yet been undertaken. The potential costs associated with compensation have not yet been established.

10.1.3. SUMMARY OF ESTIMATED ENVIRONMENTAL COST

The table below reflects the estimated environmental and rehabilitation costs.

TABLE 51: ESTIMATED ENVIRONMENTAL COSTS

CATEGORY	COST ESTIMATE
Progressive total for rehabilitation	957,822
Cost to mitigate socio-economic conditions of directly affected persons	To Be Determined
TOTAL COSTS	**957,822**

10.2. OTHER REGULATORY COSTS

TABLE 52: OTHER REGULATORY COSTS

COST	AMOUNT PER ANNUM	EXPLANATION ON HOW AMOUNT WAS CALCULATED
Royalties	52,265,002 (Average)	Royalty Formula
Mine Health and Safety Regulations	Included in Overhead Costs	Included in Overhead Costs
Occupational Health		
Rates and Taxes		
National Skills fund		
Other: Specify		
Other: Specify		
Other: Specify		
Other: Specify		
Other: Specify		
TOTAL COSTS	**52,265,002 (Average)**	

11. REGULATION 11 (1) (G) (vi): PROVISIONS FOR THE EXECUTION OF THE SOCIAL AND LABOUR PLAN

TABLE 53: ESTIMATED EXPENDITURE ON THE SLP

ITEM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Human Resource Development	R 256,000	R 416,000	R 426,000	R 426,000	R 494,000
Local Economic Development	R 1,144,000	R 1,144,000	R 1,144,000	R 1,144,000	R 1,144,000
Management Of Downscaling	R 258,299	R 271,214	R 284,775	R 299,013	R 313,964
ESTIMATED TOTALS PER YEAR	**R 1,658,299**	**R 1,831,214**	**R 1,854,775**	**R 1,869,013**	**R 1,951,964**

ITEM	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10
Human Resource Development	R 518,700	R 544,635	R 571,866.75	R 600,460	R 630,483.09
Local Economic Development	R 1,144,000	R 1,144,000	R 1,144,000	R 1,144,000	R 1,144,000
Management Of Downscaling	R 329,662.20	R 346,145	R 363,452.58	R 381,625	R 400,706.46
ESTIMATED TOTALS PER YEAR	**R 1,992,362**	**R 2,034,780**	**R 2,079,319**	**R 2,126,085**	**R 2,175,190**

12. REGULATION 11 (1) (G) (viii): OTHER RELEVANT COSTING CAPITAL EXPENDITURE REQUIREMENTS AND EXPECTED REVENUE

12.1. EXPECTED REVENUE

Production figures are based on a Life of Mine production plan, which indicates the annual production, qualities and expected product yields for the primary product as well as secondary product. The Primary Product sales price are based on the API4 RBCT export price, factored for a lower Kilo Calorie values. The Secondary product sales price is based on current Eskom pricing.

12.2. REVENUE CALCULATION

TABLE 54: REVENUE CALCULATION

YEAR		1	2	3	4	5
ROM Production		957,822	1,640,046	2,242,571	2,250,664	2,257,878
Yield	Primary	46%	49%	53%	53%	55%
	Secondary	36%	31%	28%	30%	27%
Saleable Product	Primary	436,288	804,114	1,184,078	1,194,202	1,236,188
	Secondary	340,314	512,678	618,501	666,872	606,240
Price	Primary					
	US$	90	95	98	100	102.5
	ROE	9	9.45	9.92	10.42	10.94
	Rand price per ton	810	898	972	1 042	1 121
	Primary Product Revenue	353,393,175.00	721,893,709.00	1,151,403,080.00	1,244,194,607.00	1,386,143,189.00
	Secondary					
	Price R/GJ	9.75	10.3	11	11.6	12.3
	Expected CV	21	21	21	21	21
	Price per ton	205	217	230	244	258
	Secondary Product Revenue	69,679,316	111,269,132	142,290,591	162,623,693	156,708,323
Revenue		**423,072,491**	**833,162,840**	**1,293,693,671**	**1,406,818,301**	**1,542,851,512**

TABLE 55: REVENUE CALCULATION / CONTINUED

YEAR		6	7	8	9	10
ROM Production		2,257,878	2,265,091	2,257,878	2,257,878	2,250,664
Yield	Primary	57%	57%	59%	58%	53%
	Secondary	24%	25%	20%	24%	29%
Saleable Product	Primary	1,291,506	1,301,295	1,332,374	1,310,021	1,198,929
	Secondary	547,084	564,461	461,284	534,665	659,670
Price	Primary					
	US$	102.5	102.5	102.5	100	100
	ROE	11.49	12.06	12.66	13.3	13.96
	Rand price per ton	1 177	1 236	1 298	1 330	1 396
	Primary Product Revenue	1,520,580,077.00	1,608,710,566.00	1,729,487,740.00	1,741,947,361.00	1,673,938,740.00
	Secondary					
	Price R/GJ	13	13.8	14.7	15.5	16.5
	Expected CV	21	21	21	21	21
	Price per ton	274	290	308	326	346
	Secondary Product Revenue	149,901,869	163,942,990	142,014,843	174,482,924	228,193,452
Revenue		**1,670,481,946**	**1,772,653,556**	**1,871,502,583**	**1,916,430,286**	**1,902,132,192**

12.3. ESTIMATED CAPITAL EXPENDITURE

12.3.1. INITIAL ESTIMATED CAPITAL EXPENDITURE

TABLE 56: INITIAL ESTIMATED CAPITAL EXPENDITURE

Category	Capital Item	Cost
Mining	Box Cut & site establishment	30,000
Mining	Declines	13,734
Mining	Ventilation Shaft (Raize Bore)	6,000
Mining	Mining Equipment	364,054
Mining	Geotechnical Study	140
	Mining Total	413,928
Plant/Processing	Plant (Incl site establishment & start-up capital)	150,000
Plant/Processing	Plant Earthworks	228
	Plant/Processing Total	150,228
Infrastructure	Slurry Ponds	7,500
Infrastructure	Surface Rights	78,900
Infrastructure	Pollution Control Dams & Drainage	6,318
Infrastructure	Fencing	3,500
Infrastructure	Office and security buildings	2,000
Infrastructure	Weighbridges 80 ton capacity	1,397
Infrastructure	Sewerage	204
	Infrastructure Total	99,819
Roads	Upgrade Coal Haul Road	46
	Roads Total	46
Transport	FEL's at plant	4700
Transport	Vehicles	1,039
	Transport Total	5,739
Water / Elect	Capital to establish electrical supply	179,099
Water / Elect	On Site powerlines	750
Water / Elect	5 way 22000 volt main sub	1,047
Water / Elect	Power factor correction unit	601
Water / Elect	2000 kva mini sub	824
Water / Elect	500 kva mini sub	649
Water / Elect	Pumping & Piping	490
Water / Elect	Comisioning,Transport, Civils, Accessories, High Mast Lights	1,450
Water / Elect	150kVA Lighting oil cooled transformer for 1500kVA transformer	145
Water / Elect	Water for initial startup	150
	Water / Elect Total	185,205
	Quantum Rehab Guarantee	3,291
EPCM Costs	EPCM Costs	85,492
Contingency		128,238
	TOTAL	1,071,985

12.3.2. ON-GOING ESTIMATED CAPITAL EXPENDITURE

On-going capital expenditure relates to replacement of equipment and or sub-assemblies during the Life of Mine. The expected on-going capital expenditure is indicated in the table below.

TABLE 57: LOM CAPITAL EXPENDITURE

	YEAR1	YEAR2	YEAR3	YEAR4	YEAR5	YEAR6	YEAR7	YEAR8	YEAR9	YEAR10
LOM Capital	4,789,109.00	8,200,229.00	11,212,857.00	11,253,320.00	11,289,388.00	11,289,388.00	11,325,457.00	11,289,388.00	11,289,388.00	11,253,320.00

12.3.3. SUMMARY

TABLE 58: LOM CAPITAL EXPENDITURE

	YEAR1	YEAR2	YEAR3	YEAR4	YEAR5	YEAR6	YEAR7	YEAR8	YEAR9	YEAR10
Initial Capital	542,938,000									
On-going / LOM Capital	4,789,109	8,200,229	11,212,857	11,253,320	11,289,388	11,289,388	11,325,457	11,289,388	11,289,388	11,253,320
Total Capital	**547,727,109**	**8,200,229**	**11,212,857**	**11,253,320**	**11,289,388**	**11,289,388**	**11,325,457**	**11,289,388**	**11,289,388**	**11,253,320**

12.3.4. Explanation and Summary of Other Costs

The following table reflects Life of Mine capital expenditure escalated on an annual basis.

Table 59: LOM Capital Expenditure

Cost Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Plant Cost	14,367,328	15,229,368	16,143,130	17,111,718	18,138,421	19,226,726	20,380,330	21,603,150	22,899,339	24,273,299
Discard Cost	4,789,109	5,076,456	5,381,043	5,703,906	6,046,140	6,408,909	6,793,443	7,201,050	7,633,113	8,091,100
Overhead and Owners Costs	28,734,657	52,153,453	75,592,597	80,417,305	85,515,555	90,646,487	96,392,259	101,850,395	107,961,417	114,073,484
Transport	42,713,109	76,769,014	111,395,771	121,911,294	127,931,270	135,324,630	145,563,557	148,334,915	161,708,210	172,703,452
Siding Cost	11,649,030	20,937,004	30,380,665	33,248,535	34,890,346	36,906,717	39,699,152	40,454,977	44,102,239	47,100,941
Rail and Harbour	116,490,298	209,370,038	303,806,648	332,485,346	348,903,463	369,067,172	396,991,519	404,549,768	441,022,390	471,009,414
Royalties	5,839,244	23,853,560	47,448,608	52,779,527	62,590,309	70,783,375	74,367,799	81,047,860	76,342,420	65,801,702
Depreciation	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867	36,195,867
Interest	46,149,730	41,534,757	36,919,784	32,304,811	27,689,838	23,074,865	23,074,865	13,844,919	9,229,946	4,614,973

12.3.5. Summary of Other Costs

Table 60: Summary of Capital and Other Expenses

Category	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Initial capital expenditure	542,938,000									
On-going capital expenditure	4,789,109	8,200,229	11,212,857	11,253,320	11,289,388	11,289,388	11,325,457	11,289,388	11,289,388	11,253,320
Other costs specified in 12.3 above	306,928,372	481,119,517	663,264,113	712,158,307	747,901,208	787,634,748	839,458,790	855,082,899	907,094,940	943,864,231
TOTAL CAPITAL AND OTHER	**854,655,482**	**489,319,745**	**674,476,970**	**723,411,627**	**759,190,596**	**798,924,136**	**850,784,247**	**866,372,287**	**918,384,328**	**955,117,551**

13. REGULATION 11(1) (G) (vi): DETAILED CASH FLOW FORECAST AND VALUATION

The Cash Flow Forecast and Valuation is provided excluding financing of the proposed mining operation. The forecast also indicates how the applicable regulatory costs will be accommodated.

TABLE 61: CASH FLOW FORECAST AND VALUATION

CASH FLOW FORECAST AND VALUATION (REGULATION 11 (g) (vi)											
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
		R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000
1	REGULATIONS 11 (1)(d) and (f) PRODUCTION	958	1,640	2,243	2,251	2,258	2,258	2,265	2,258	2,258	2,251
2	REGULATION 11 (1) (e)										
	PRICE										
	Primary Product	810	898	972	1,042	1,121	1,177	1,236	1,298	1,330	1,396
	Secondary product	205	217	230	244	258	274	290	308	326	346
3	REVENUE										
	Total Revenue	423,072	833,163	1,293,694	1,406,818	1,542,852	1,670,482	1,772,654	1,871,503	1,916,430	1,902,132
4	REGULATION 11 (1) (g) (i)										
	MINING COST	128,243	232,761	337,370	358,902	381,656	404,555	430,199	454,558	481,832	509,110
5	REGULATION 11 (1)(g) and (ii) TECHNOLOGY COST										
6	REGULATION 11 (g) (iii) TECHNICAL SKILLS COST	1,187	1,258	1,334	1,414	1,498	1,588	1,684	1,785	1,892	2,005
7	REGULATION 11 (1) (g) (iv) REGULATORY REQUIREMENTS ENVIRONMENTAL COST	958	1,738	2,520	2,681	2,851	3,022	3,213	3,395	3,599	3,802

8	REGULATION 11 (1) (G) (viii) SOCIAL AND LABOUR PLAN COST	4,231	4,485	4,754	5,039	5,341	5,662	6,001	6,361	6,743	7,148
9	REGULATION 11 (1) (g) (v) CAPITAL AND OTHER	1,389,043	499,013	688,526	738,357	775,084	815,771	868,699	885,302	938,449	976,318
10	WORKING PROFIT /LOSS	(91,027)	46,815	227,036	274,338	356,482	426,068	450,899	518,831	489,078	415,309
11	TAX	-	-	-	-	-	30,714	123,081	142,112	133,781	113,136
12	NET CASH FLOW	(1,096,335)	85,730	397,370	621,839	751,209	872,189	843,489	824,854	852,369	777,860
13	DISCOUNTED CASH FLOW	(994,656)	62,581	278,928	403,952	442,922	468,952	414,745	366,272	345,469	287,197
	IRR	21%									

14. REGULATION 11 (1) (G) (vii): DETAILS REGARDING RESOURCES OR PROPOSED MECHANISMS TO FINANCE OPERATION

14.1. FINANCING THE CASHFLOW

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

14.2. DETAILING 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.)

14.3. CONFIRMATION OF SUPPORTING EVIDENCE APPENDED

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

15. REGULATION 11 (1) (H): UNDERTAKING, SIGNED BY THE APPLICANT

By signing this document, the Applicant undertakes to adhere to the proposals as set out in the Mining Works Programme

Herewith I, the person whose name and identity number is stated below, confirm that I am the Applicant or the person authorized to act as representative of the Applicant in terms of 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	
Identity Number	

16. ATTACHMENTS

ATTACHMENT 1: APPLICANT DOCUMENTATION

ATTACHMENT 2: TITLE DEEDS

ATTACHMENT 3: MINE DESIGN MAP

ATTACHMENT 4: BASIC PLANT DESIGN

DMR Acceptance of Mining Right Application

mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X7279, Witbank, 1035, Tel: 013 653 0500, Fax 013 690 3288
Province Building, Cnr Botha Avenue & Paul Kruger Street, Witbank, 1035
From: Directorate: Mineral Regulation: Mpumalanga Region
Enquiries: Mrs J du Plessis **Ref:** MP 30/5/1/1/2/10069 MR
Subdirectorate: Mineral Laws

Registered Mail

The Directors
Atha – Africa Ventures (Pty) Limited
P O Box 1569
SANDTON
2157

Fax No. 011 784 7467

Attention: Morgam Munsamy

Gentlemen/Ladies

ACCEPTANCE OF AN APPLICATION FOR A MINING RIGHT IN TERMS OF SECTION 22 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002): THE FARMS BLOEMHOF 92 HT, GOEDGEVONDEN 95 HT, KROMHOEK 93 HT, PORTION 1 OF THE FARM NAUWGEVONDEN 110 HT, PAARDEKOP 109 HT, UITZICHT 108 HT, VAN DER WALTSPOORT 81 HT, VIRGINIA 91 HT, WAAIHOEK 87 HT, YZERMYN 96 HT AND ZOETFONTEIN 94 HT, MAGISTERIAL DISTRICT OF WAKKERSTROOM.

1. This is to inform you that your abovementioned application for the mining of **Coal** in terms of Section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) has been accepted.

2. In terms of Section 22(4) of the MPRDA you are therefore required to:

   (a) submit six (6) copies of a scoping report on or before 24 **May 2013**,

(b) consult with interested and affected parties and submit six (6) copies of the environmental management programme which includes the environmental impact assessment report in terms of section 39 of the Act on or before 24 **October 2013**; which programme must be compiled with the input of the public, and must include a record as to the extent that the public participation informed the baseline environment and the potential impact assessment.

(c) notify in writing and consult with the landowner or lawful occupier, the surrounding community members, any other affected party and submit the result of such consultation to this office on or before 24 **June 2013.**

3. You are further, in terms of Sections 29 and 39(5) of the MPRD Act, directed to compile the Environmental Management Programme in accordance with the standard directive attached hereto as **Annexure A.**

4. You are further requested in terms of section 17(4) of the Act to give effect to the object referred to in section 2(d) of the Act. In this regard you are required to submit by no later than 24 **May 2013,** the following documents:

   4.1. duly signed shareholders agreements;
   4.2. share certificates and shareholder's registers;
   4.3. articles and memorandum of association of the company;
   4.4. details relating to funding (all relevant agreements); and
   4.5. any other agreement or documents relating to the agreement.

5. Kindly take note that our system could only print the application form which you have submitted on line. Therefore you are herewith requested to submit proof that the documents were submitted on line and you have to submit hard copies of the following documents **within 14 days from the date of this letter**: -

   (a) Details of the land or area (the regulation 2.2 plan);
   (b) Two copies of the Mining Work Programme
   (c) Proof of the financial and technical competence;
   (d) Detailed financing plan as contemplated in regulation 11(g);
   (e) Provide a list of existing rights which are held by you
   (f) Two copies of the Social and Labour Plan;
   (g) A certified copy of your valid Prospecting Right;
   (h) A certified copy of the certificate to commence business; and
   (i) A copy of Resolution, if acting in a representative capacity.

Further note that failure to submit the documents as requested and failure to adhere to the timeframes as stipulated above amounts to non-compliance with the provision of the Act and will therefore lead to your application being processed for refusal without further notification to you.

Yours faithfully

.....

REGIONAL MANAGER:
MPUMALANGA REGION
DATE: 25 April 2013

mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X7279, Witbank, 1035, Tel: 013 653 0500, Fax 013 690 3288
Province Building, Cnr Botha Avenue & Paul Kruger Street, Witbank, 1035
From: Directorate: Mineral Regulation: Mpumalanga Region
Enquiries: Mrs J du Plessis **Ref:** MP 30/5/1/2/2/10069 MR
Subdirectorate: Mineral Laws

Registered Mail

The Directors
Atha – Africa Ventures (Pty) Limited
P O Box 1569
SANDTON
2157

Fax No. 011 784 7467

Attention: Morgam Munsamy

Gentlemen/Ladies

ACCEPTANCE OF AN APPLICATION FOR A MINING RIGHT IN TERMS OF SECTION 22 OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (ACT 28 OF 2002): THE FARMS BLOEMHOF 92 HT, GOEDGEVONDEN 95 HT, KROMHOEK 93 HT, PORTION 1 OF THE FARM NAUWGEVONDEN 110 HT, THE FARMS PAARDEKOP 109 HT, UITZICHT 108 HT, PORTION 2 AND THE REMAINING EXTENT OF VAN DER WALTSPOORT 81 HT, THE FARM VIRGINIA 91 HT, PORTION 1 AND THE REMAINING EXTENT OF THE FARM YZERMYN 96 HT AND THE FARM ZOETFONTEIN 94 HT, MAGISTERIAL DISTRICT OF WAKKERSTROOM.

1. I refer to your letter dated 2 May 2013 and have to inform you that the farm Waaihoek 87 HT will be excluded from your application since the latter farm was not included in the original prospecting right – File MP 30/5/1/1/2/215 PR.

2. The file number for this application is MP 30/5/1/2/2/10069 MR.

Yours faithfully

.....
REGIONAL MANAGER:
MPUMALANGA REGION

13/05/2013

DEA Combined Environmental and Waste License Application

environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

	(For official use only)
File Reference Number:	12/12/20/ or 12/9/11/L
NEAS Reference Number:	DEAT/
Date Received:	

Application for integrated environmental authorisation and waste management licence in terms of the-

(1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010; and
(2) National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 718 of 2009.

PROJECT TITLE

Yzermyn Underground Coal Mine

PART A: INFORMATION AND APPLICATION PROCESS

1. DEFINITIONS

Definitions in this form are as per the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), the Environmental Impact Assessment ("EIA") Regulations, 2010, the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEMWA") and the Schedule contained in Government Notice 718, published on 3 July 2009 in terms of section 19 of NEMWA.

2. APPLICABILITY OF INTEGRATED ENVIRONMENTAL AUTHORISATION PROCESS

The integrated environmental authorisation process only apply in instances where the Minister is both the-

(a) competent authority for the environmental authorisation applied for in terms of NEMA and the EIA Regulations, 2010; and
(b) the licencing authority for the waste management licence in terms of NEMWA.

Kindly refer to paragraph 3.2 of this part of the application to determine in which instances the Minister would be the competent authority in terms of NEMA and the licencing authority in terms of NEMWA.

3. APPLICATION PROCESS EXPLAINED:

3.1 Integrated environmental authorisation process:

3.1.1 The environmental authorisation process prescribed for listed activities under Listing Notices 1, 2 and 3 published in Government *Gazette* Numbers R544, R545 and R546 respectively and the waste licensing process for listed activities contained in the Schedule in Government Notice 718, 2009 published in terms of section 19 of NEMWA are as defined in the Environmental Impact Assessment (EIA) Regulations made under section 24(5) of the National Environmental Management Act, 2008 (Act No. 107 of 1998) ("NEMA").

3.1.2 This integrated application form is the official form in terms of regulation 12(2)(a) of the EIA Regulations, 2010 and must accompany every integrated environmental authorization application pertaining to-

- listed activities in terms of NEMA; and
- waste activities in terms of NEMWA.

3.2 Competent Authority (Where to submit applications)

3.2.1 The Minister of Water and Environmental Affairs is the-

- competent authority in respect of the activities listed in Listing Notices 1, 2 and 3, published in Government *Gazette* numbers R544, R545, and R546 respectively, in terms of NEMA if the activity-
  - (a) has implications for international environmental commitments or relations;
  - (b) will take place within an area protected by means of an international environmental instrument, other than-
    - (i) any area falling within the sea-shore or within 150 meters seawards from the high-water mark, whichever is the greater;
    - (ii) a conservancy;
    - (iii) a protected natural environment;
    - (iv) a proclaimed private nature reserve;
    - (v) a natural heritage site; and
    - (vi) the buffer zone or transitional area of a world heritage site;
  - (c) has a development footprint that falls within the boundaries of more than one province or traverses international boundaries;
  - (d) Is undertaken, or is to be undertaken by-
    - (i) A national department;
    - (ii) A provincial department responsible for environmental affairs or any other organ of state performing a regulatory function and reporting to the MEC; or
    - (iii) A statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government; or
  - (e) Will take place within a national proclaimed protected area or other conservation area under control of a national authority.
- licencing authority in respect of all activities listed in both categories of the Schedule contained in Government Notice 718, 2009 published in terms of section 19 of NEMWA where –

(a) Unless otherwise indicated by the Minister by notice in the *Gazette,* the waste management activity involves the establishment, operation, cessation or decommissioning of a facility at which hazardous waste has been or is to be stored, treated or disposed of;
(b) The waste management activity involves obligations in terms of an international obligation, including the importation or exportation of hazardous waste;
(c) The waste management activity is to be undertaken by-
    (i) A national department;
    (ii) A provincial department responsible for environmental affairs; or
    (iii) A statutory body, excluding any municipality, performing an exclusive competence of the national sphere of government;
(d) The waste management activity will affect more than one province or traverse international boundaries; or
(e) Two or more waste management activities are to be undertaken at the same facility and the Minister is the licencing authority for any of those activities.

However, despite the above-mentioned legislative provisions, the Minister and an MEC may agree that an application for a waste management activity or an environmental authorisation in respect of the above-mentioned activities, where the Minister is the competent/licencing authority, may be dealt with by the relevant MEC within whose province the activity(ies) will take place. Similarly the Minister and the MEC may agree that an application for an environmental authorisation or a waste management activity where the MEC has been identified as the competent/licencing authority, may be dealt with by the Minister. [Section 24C(3) of NEMA and section 43(3) of NEMWA)]

The integrated application for environmental authorisation must be submitted by lodging an application with the National Department of Environmental Affairs. The application must be marked for the attention of:

The Director: Environmental Impact Evaluation
Private Bag X447
Pretoria 0001
Tel: 012 310 3230

3.3 Making an Application

3.3.1 This application form is current as of 1 September 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority. It is the applicant's responsibility to download the current version of the application form from the website of the Department at http://www.deat.gov.za.

3.3.2 The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.

3.3.3 The applicant must clearly mark confidential sections of the information submitted in the application form and supporting documents. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

3.3.4 The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 14 days of receipt of the application.

3.3.5 Incomplete applications may be returned to the applicant for revision.

3.3.6 Sections in the form that do not apply to the applicant must be marked "not applicable". However, the use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.

3.3.7 Where applicable black out the boxes that are not applicable in the form.

3.3.8 This application form (together with four hard copies of this application form), must be handed in at the offices of the relevant competent authority as determined by the relevant Acts and Regulations and as indicated in this application form. All application forms must be signed as stipulated in the form. Applications that are not signed or completed accordingly will not be considered.

3.3.9 No faxed or e-mailed applications will be accepted.

3.3.10 There is currently no prescribed fee.

3.4 Appointment of an EAP

- The applicant must appoint an EAP in terms of EIA Regulations, 2010;
- The EAP must comply with general requirements as given in EIA regulations, 2010; and
- The EAP may be disqualified in terms of EIA Regulations, 2010.

3.5 Criteria for determining whether basic assessment or scoping is to be applied to applications

3.5.1 NEMA activities

(a) Basic assessment must be applied to an application if the authorisation applied for is in respect of an activity listed in Listing Notices 1 and/or 3 published in Government *Gazette* Numbers R544 and R546, 2010 respectively and which must follows the process described in sections 21-25 of the EIA Regulations, 2010; and

(b) Scoping and Environmental Impact Reporting Process ("S&EIR") must be applied to an application if the authorisation applied for is in respect of an activity listed in Listing Notice 2 published in Government Gazette Number R545, 2010 and which must follows the process described in sections 26-35 of the EIA Regulations, 2010.

3.5.2 NEMWA activities

(a) Basic assessment, in terms of sections 21-25 of the EIA Regulations, 2010, must be applied to an application if the authorisation applied for is in respect of an activity listed in Category A of the Schedule contained in Government Notice 718, published on 3 July 2009, in terms of section 19 of NEMWA; and

(b) S&EIR, in terms of sections 26-35 of the EIA Regulations, 2010, must be applied to an application if the authorisation applied for is in respect of an activity Category B of the Schedule contained in Government Notice 718, published on 3 July 2009, in terms of section 19 of NEMWA.

3.5.3 Combination of NEMA and NEMWA activities

Should any of the NEMA or NEMWA activities applied for require the application of the S&EIR process, the S&EIR process will be applied to this application for integrated environmental authorisation.

Queries must be addressed to the contact hereunder:

Departmental Details

Postal address:
Department of Environmental Affairs
Attention: Director: Environmental Impact Evaluation
Private Bag X447
Pretoria
0001

Physical address:
Department of Environmental Affairs
Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)
2nd Floor North Tower
315 Pretorius Street
Pretoria
0002

Queries should be directed to the Directorate: Environmental Impact Evaluation at:

Tel: 012-310-3290
Fax: 012-320-7539

PART B: GENERAL

1. DESCRIPTION OF PROJECT

The entire project will entail the following (full detail of the project can also be appended):

Atha Africa Ventures (Pty) Ltd (Atha) proposed to develop an underground coal mine close to the town of Wakkerstroom in the Mpumalanga Province of South Africa. The proposed project is known as the Yzermyn Underground Coal Mine. Atha obtained the prospecting right to an area of 8,360 hectares and has completed detailed exploration drilling. Following detailed exploration, a feasible target area has been identified which comprises approximately 2,500 hectares.

Atha propose to produce thermal coal for the local and export market through means of underground bord and pillar mining. It is proposed that the Utrecht Coalfield will be mined, which comprises the Karoo Supergroup geological stratigraphic unit. The Alfred and Dundas coal seams, which form part of the Utrecht coal field, will be mined. The project involves the extraction of the coal, beneficiation/ washing of the coal, stockpiling of product and discard and the transportation of the marketable coal to either the Piet Retief Siding for export through the Richards Bay Coal Terminal, or to Eskom power stations for the generation of electricity.

It is anticipated that the mine will have the potential to produce approximately 2.5 million tons of coal per annum, with an estimated life of mine of approximately 15 – 20 years, with additional resources potentially available adjacent to the target area.

WSP Environmental (Pty) Ltd (WSP) has been appointed by Atha to undertake a comprehensive social and environmental impact assessment (ESIA) for the proposed mine. The ESIA will be undertaken in two phases – namely scoping phase and the environmental impact assessment phase. WSP is undertaking all project phases in accordance with relevant South African legislation (the Minerals and Petroleum Resources Development Act (No. 28 of 2002) (MPRDA), National Environmental Management Act (No. 107 of 1998) (NEMA), and associated relevant legislation) and the International Finance Corporation (IFC) Performance Standards. The ESIA will need to be authorised by the Department of Mineral Resources (DMR), Mpumalanga Department of Economic Development, Environment, Tourism and Conservation (MDEDECT), the Department of Environmental Affairs (DEA) and the Department of Water Affairs (DWA).

Purpose of application:

The purpose of this application is to obtain a reference number from the DEA for combined application as required by the NEMA and NEWMA.

2. FLOW CHART OF OPERATIONS

Please provide a brief description of the activities and operations at the site. Provide a flow chart of the operation showing all inputs and outputs of the process. Give particulars of the source, location, nature, composition and quantity of emission to the atmosphere, surface water, sewer, and ground-water including noise emissions. Solid waste must be in tons and specify units for liquids and gases.

Please refer to Appendix A for a detailed project description. Due to limited information available, a flow chart with the required information cannot be adequately drafted.

3. BACKGROUND INFORMATION

Project applicant:	Atha-Africa Ventures (Pty) Ltd		
Trading name (if any):			
Contact person:	Morgam Munsamy		
Physical address:	8th Floor, Sinosteel Plaza, 159 Rivnoia Road, Morningside, 2148		
Postal address:	8th Floor, Sinosteel Plaza, 159 Rivnoia Road, Morningside		
Postal code:	2148	Cell:	083 655 5362
Telephone:	011 784 1885	Fax:	011 784 7467
E-mail:	Morgam.munsamy@athagroup.in		

Landowner:	Mr PWB Uys (managed by Mr Johan Uys)		
Contact person:	Johan Uys		
Postal address:	PO Box 162, Volksrust		
Postal code:	2470	Cell:	
Telephone:	017 735 3567	Fax:	
E-mail:	laansuys@gmail.com		

In instances where there is more than one landowner, please attach a list of landowners with their contact details to this application.

Attached in Appendix B are contact details for the Farms Kromhoek 93 HT, Zoetfontein 94 HT. Goedgevonden 95 HT, Portion 1 of Yzermyn 96 HT and the Remaining Portion of Yzermyn 96 HT.

Ownership of the property (mark only one with an X)

Property owned by applicant (100% Share value)		Property leased by applicant	
Property owned by applicant (Share value less than 100%)		The property is communal land	
Property is not owned by applicant	X		

Local authority in whose jurisdiction the proposed activity will fall:	Nellisiwe Mnangeni (Mpumalanga Department of Economic Development, Environment, Conservation and Tourism)			
Nearest town or districts:	Wakkerstroom	21km	southwest	
	Dirkiesdorp	13km	east-northeast	
	Piet Retief	58km	northeast	
Contact person:	Nellisiwe Mnangeni			
Postal address:	Private Bag X11215, Nelspruit			
Postal code:	1200		Cell:	
Telephone:	017 811 4830/ 3944		Fax:	013 766 4614
E-mail:	Mlangeninm@mpg.gov.za			

In instances where there is more than one local authority involved, please attach a list of local authorities with their contact details to this application.

List of applicable authorities are appended in Appendix C.

Please note that a complete list of all organs or state and or any other applicable authority with their contact details must be appended to this application.
List of applicable authorities are appended in Appendix C.

Property description/physical address:

Farm	Portion	Reg. Div.	Province	Extent (ha)
Kromhoek 93	The Farm	HT	Mpumalanga	1184.73
Portion of Farm Zoetfontein 94	The Farm	HT	Mpumalanga	553.81
Goedgevonden 95	The Farm	HT	Mpumalanga	739.45
Yzermyn 96 Portion 1	Portion 1	HT	Mpumalanga	193.83

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use where the site is situated:

Industrial		Recreation	
Agriculture	X	Commercial	
Residential		Mining & quarrying	
Forestry		Wilderness areas	
Wetlands		Nature area	
Open spaces	X		

Other current land-use……Grazing and agriculture……..

Current land-use zoning:

The farms have not been zoned.

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.

Is a change of land-use or a consent use application required?	YES	NO
Must a building plan be submitted to the local authority?	YES	NO

Locality map: An A3 locality map must be attached to the back of this document, as Appendix D. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).

4. SITE IDENTIFICATION AND LINKAGE, LOCATION AND LANDUSE

4.1 Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

T	0	H	T	0	0	0	0	0	0	0	0	0	0	9	3	0	0	0	0	0
T	0	H	T	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
T	0	H	T	0	0	0	0	0	0	0	0	0	0	9	6	0	0	0	0	1
T	0	H	T	0	0	0	0	0	0	0	0	0	0	9	6	0	0	0	0	0
1			2				3						4						5	

LEGEND:
1. Refers to the Surveyor's-General Office
2. Major Code (Registration Division)
3. Minor code
4. Property No (i.e. Farm No./Erf No./Holding Area No./Sheme No.)
5. Portion Number

(if there are more that 6, please attach a list with the rest of the numbers)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

4.2 If the property type is not surveyed, complete the following:

Full name of leader of village, community or tribal authority	
Local Authority	
Magisterial District	
Tribal Authority/Council	

PART C: LISTED ACTIVITIES APPLIED FOR IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE ENVIRONMENTAL IMPACT REGULATIONS, 2010

1. ACTIVITIES APPLIED FOR TO BE AUTHORISED

For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant or notice) :	Describe each listed activity as per the detailed project description (and not as per wording of the relevant Government Notice):
NEMA: GNR.544 of 2010	Activity 2	This activity is applicable if coal is handled or stored (in excess of 100 000 tons) outside the premises of a mine as defined by the Mines Health and Safety Act (No. 29 of 1996).
	Activity 9	The proposed mine will be required to install pipes exceeding 1000 m in length for the transportation of water, sewage or stormwater that may exceed an internal diameter of 0.36 m and/ or exceed a peak throughput of more than 120 litres per second
	Activity 10	The transmission of electricity required to power the mine may exceed 275kV and therefore NEMA: GNR.545, Activity 8 will be applicable.
	Activity 11	This activity will be applicable should the infrastructure or structures listed in Activity 11 are to be constructed within 32 m of a watercourse.
	Activity 12	It has been noted that the Yzermyn Mine will require the construction of a pollution control dam more than 50 000 m^3 capacity.
	Activity 13	Dangerous goods such as hydrocarbons will be stored onsite. Should the combined volume stored onsite exceed 500 m^3, GNR.545 Activity 3 will be applicable.
	Activity 22	It has been noted that the unpaved road stretching from the proposed mine access to the R543 will need to be upgraded to accommodate mine vehicles.
	Activity 23	As undeveloped land will need to be transformed into industrial/ mining land use more than 20ha – GNR.545 Activity 15 will be applicable.
	Activity 24	The land to be transformed for the project is larger than 1000 m^2.
	Activity 26	Section 53(1) of the NEM:BA will be triggered during the proposed mining project.
	Activity 53	It has been noted that the Piet Retief Siding may need to be upgraded to accommodate the required coal storage capacity.
	Activity 56	The triggering of phased activities that may exceed specific thresholds.

NEMA GNR.545 of 2010	Activity 3	Should the mine store in excess of 500 m^3 (combined capacity) of a dangerous good, this activity will be relevant.
	Activity 5	The proposed mining activities will generate or release emissions, pollution or effluent for which permits and licenses are required (i.e. WULA).
	Activity 6	This may be applicable if coal is defined as a dangerous good, but is unlikely to occur outside of an industrial complex (mining area).
	Activity 8	It is anticipated that more that 275kV will be required in order to power the mining activities. A transmission line will need to be installed.
	Activity 15	It is presumed that the undeveloped land will need to be transformed into industrial land use and may exceed 20ha in size.
	Activity 18	It has been noted that the unpaved road from the proposed mine entrance to Dirkiesdorp will need to be upgraded. This activity will be applicable.
	Activity 19	Should the proposed pollution control dam exceed a dam wall height of 5 m, or if the dam covers an area of more than 10ha – this activity will be applicable.
	Activity 20	This activity has not yet been promulgated, and as a result, is not applicable.
NEMA GNR.546 of 2010	Activity 2	The mine will be required to construct a reservoir exceeding 250 m^3 in capacity.
	Activity 4	This is applicable as the activity occurs within a national protected area expansion focus area, sensitive area, critical biodiversity area, or areas within a 10 km radius of a national park/ 5 km radius of any other protected area.
	Activity 12	The area, on which the mine is proposed, is occupied by more than 300 m^2 of vegetation and 75% of that vegetation may be indigenous vegetation.
	Activity 16	During mine set up, buildings and infrastructure covering an area greater than 10 m^2 will be constructed.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2. TYPE OF APPLICATION REQUIRED FOR ABOVE-MENTIONED ACTIVITIES

2.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the Regulations)?	YES	NO

Please indicate when the basic assessment report will be submitted:

N/A

2.2 Application for Scoping and Environmental Impact Reporting (S&EIR) assessment

Is this an application for S&EIR (as defined in the Regulations)?	YES	NO

Please indicate when the S&EIR Report (including the Plan of Study for EIA) will be submitted:

THE FINAL SCOPING REPORT WILL BE SUBMITTED WITH THIS APPLICATION. THE FINAL ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT, INCLUDING THE ACCOMPANING ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT WILL BE SUBMITTED IN NOVEMBER 2013.

The S&EIR report will be submitted after consultation with the competent authority:	YES	NO

PART D: ACTIVITIES APPLIED FOR IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT, 2008 AND THE ENVIRONMENTAL IMPACT REGULATIONS, 2010

SECTION 1: TYPE OF APPLICATION AND FACILITY:

1.1 Indicate the type of facility/operation and fill in the required sections only

TYPE OF ACTIVITY	MARK	SECTIONS OF THE FORM TO BE FILLED IN
Recycling and/or recovery Facility	x	All except Section 5
Storage and or transfer Facility	x	All except Section 5
Treatment facility	x	All except Section 5
Disposal facility		All

1.2 Activities applied for:

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	ACTIVITY NUMBERS (AS LISTED IN THE WASTE MANAGEMENT ACTIVITY LIST) :	DESCRIBE EACH LISTED ACTIVITY (and not as per the wording of the relevant Government Notice):
NEMWA GNR.718 of 2009, Category A	Activity 1	It is not apparent as to what volume of general waste will be generated on a monthly basis, although the mine and associated activities may have the capacity to store in excess of 100 m3 of general waste, and therefore, a waste management license is required.
	Activity 2	It is not apparent as to what volume of general waste will be generated on a monthly basis, although the mine and associated activities may have the capacity to store in excess of 35 m3 of hazardous waste, and therefore, a waste management license is required.
	Activity 3	The storage of mineral sediment in pollution control dams is not considered waste (in terms of the NEMWA) and can be defined as the storage of mining residue in a dam. Therefore, this activity may not be applicable to the proposed mining project.

	Activity 4	It is likely that the mining activities will have the capacity to store in excess of 500 m2 of waste tyres at the mine lease area.
	Activity 7	The mine may implement a recycling station which can reuse/ generate more than 10 tons of waste per month.
	Activity 9	The mine may implement an onsite treatment facility to treat general waste in excess of 10 tons per day.
	Activity 11	The mine will install effluent treatment plants that will exceed 2 000 m3 per annum. If the treatment facility exceeds 15 000 m3, GNR.718 of 2009, Activity 7 will be applicable.
	Activity 18	It is likely that temporary storage areas exceeding the stipulated thresholds may be constructed; therefore a waste management license will be required.
NEMWA GNR.718 of 2009, Category B	Activity 7	It is likely that the capacity to treat waste water, effluent or sewage will exceed 15 000 m^3 per annum, and therefore a waste management license will be required.
	Activity 11	If a treatment facility to treat sewage, waste water or effluent is constructed (exceeding the capacity to treat more than 15 000 m^3 per annum), this activity will be applicable.

NB: Authorisation issued will only cover activities applied for and listed above. Activities added in the middle or after the processing of this authorisation may mean a totally new application.

1.3 TYPE OF APPLICATION REQUIRED FOR ABOVE-MENTIONED ACTIVITIES

1.3.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the Regulations)?	YES	NO

Please indicate when the basic assessment report will be submitted:

N/A

1.3.2 Application for Scoping and Environmental Impact Reporting (S&EIR) assessment

Is this an application for S&EIR (as defined in the EIA Regulations, 2010) reporting?	YES	NO

Please indicate when the S&EIR Report (including the Plan of Study for EIA) will be submitted:

THE FINAL SCOPING REPORT WILL BE SUBMITTED WITH THIS APPLICATION. THE FINAL ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT REPORT, INCLUDING THE ACCOMPANING ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT WILL BE SUBMITTED IN NOVEMBER 2013.

	YES	NO
The scoping report will be submitted after consultation with the competent authority:		

1.4 Size of Site and Classification

Size of facility for a waste management activity	Storage of waste: Greater than 100 m3 of general and greater than 35 m3 of hazardous waste. Recycling station has not been detailed/ designed. This will be designed during the ESIA phase. The treatment facility has not been detailed/ designed. This will be designed during the ESIA phase.
Area where the waste management activity takes place	The proposed activities will be located on a greenfields site where underground mining is proposed. The farms which surface infrastructure may be constructed/ install include the following:
Classification of facility in terms of climatic water balance	
Classification of Facility in terms of the type and the quantity of waste received	Type and quantity of waste has not been calculated as the project is currently completing the feasibility phase. Information pertaining to classification, type and quantity will be available in the ESIA report.

Kromhoek 93	The Farm	HT	Mpumalanga	1184.73
Goedgevonden 95	The Farm	HT	Mpumalanga	739.45
Yzermyn 96 Portion 1	Portion 1	HT	Mpumalanga	193.83

1.5 Operational times

The mine will operate for approximately 22 hours per day. No mining will take place on Sunday although maintenance work will continue. The effluent, wastewater and sewage treatment plant will operate on a continual basis.

PERIOD	FROM	UNTIL
Weekdays	00h00	24h00
Saturdays	00h00	24h00
Sunday	00h00	24h00
Public holidays	00h00	24h00

SECTION 2: WASTE QUANTITIES

2.1 Indicate or specify types of waste and list the estimated quantities expected to be managed daily (should you need more columns, you are advised to add more)

Hazardous waste	Non hazardous waste	Total waste handled (tonnes per day)
To be determined in the ESIA Phase	To be determined in the ESIA Phase	To be determined in the ESIA Phase

Source of information supplied in the table above Mark with an "X"

Determined from volumes	
Determined with weighbridge/scale	
Estimated	X

2.2 Recovery, Reuse, Recycling, treatment and disposal quantities:

Indicate the applicable waste types and quantities expected to be disposed of and salvaged annually:

TYPES OF WASTE	MAIN SOURCE (NAME OF COMPANY)	QUANTITIES		ON-SITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE RECOVERY REUSE RECYCLING TREATMENT OR DISPOSAL	OFFSITE DISPOSAL
		TONS/MONTH	M^3/MONTH	method & location	method location and contractor details	
*	*	*	*	*	*	*

* Please note that additional information pertaining to quantities of waste generated, reused and recycled will be assessed during the ESIA phase of the project and an updated application form included with the submission of the ESIA report.

SECTION 3: GENERAL

3.1 Prevailing wind direction (e.g. NWW)

November – April	East
May - October	East and westerly waves

3.2 The size of population to be served by the facility

	Mark with "X"	Comment
0-499	X	**Facility will only be served by the mine employees.**
500-9,999		
10,000-199,999		
200,000 upwards		

3.3 The geological formations underlying the site:

Granite		Quartzite	
Shale	X	Dolomite	
Sandstone	X	Dolerite	X

Other_____

SECTION 4: COMPETENCE TO OPERATE SITE

It is imperative that the holder of the waste management licence is a fit person in terms of section 59 of the NEMWA (59 of 2008). To assess the holder's competence to operate the site, please disclose the following:

4.1 Legal compliance

	YES/NO	DETAILS
Has the applicant ever been found guilty or issued with a non compliance notice in terms of any national environmental management legislation?	No	N/A
Has the applicant's licence in terms of the Waste Act 2008 ever been revoked?	No	N/A
Has the applicant ever been issued with a non compliance notice or letter in terms of any South African Law?	No	N/A

NB: Details required above include any information that the applicant wants the Department to take into consideration in determining whether they are a "fit person" and this includes reasons why the offence happened and measures in place to prevent recurrence

4.2 Technical competence

What technical skills are required to operate the site?	**The relevant skills required to operate the facilities will be assessed and included in the ESIA Report.**
How will the applicant ensure and maintain technical competency in the operation of the site?	**Various operating procedures, monitoring programmes and maintenance schedules will be developed to ensure technical competency in the operation of the facilities.**

4.3 Details of applicant's experience and qualification along with that of relevant employees must be summarised as shown in the table below:

NAME	POSITION	DUTIES AND RESPONSIBILITIES	QUALIFICATIONS AND EXPERIENCE

4.4 Financial Provisions

Provide a plan of estimated expenditure for the following:

	ATTACHED/NOT ATTACHED	SECTION OF THE REPORT WHERE IT IS ATTACHED
Environmental Monitoring	**Not attached**	**Please note that this will only be included in the final environmental impact assessment and environmental management programme reports.**
Provision and replacement of infrastructure	**Not attached**	**Please note that this will only be included in the final environmental impact assessment and environmental management programme reports.**
Restoration and aftercare	**Not attached**	**Please note that this will only be included in the final environmental impact assessment and environmental management programme reports.**

SECTION 5: LANDFILL PARAMETERS

5.1 The method of disposal of waste:

Land-building ☐ Land-filling ☐ Both ☐

The dimensions of the disposal site in metres

	At commencement	After rehabilitation
Height/Depth		
Length		
Breadth		

5.2 The total volume available for the disposal of waste on the site:

Volume Available	Mark with "X"	Source of information (Determined by surveyor/ Estimated)
Up to 99		
100-34 999		
35 000- 3,5 million		
>3,5 million		

5.3 The total volume already used for waste disposal:

(a) Will the waste body be covered daily	YES	NO
(b) Is sufficient cover material available	YES	NO
(c) Will waste be compacted daily	YES	NO

If the answers (a) and/or (b) are No, what measures will be employed to prevent the problems of burning or smouldering of waste and the generation of nuisance?

5.4 The Salvage method

Mark with an “X” the method to be used.

At source	
Recycling installation	
Formal salvaging	
Contractor	
No salvaging planned	

5.5 Fatal Flaws for the site:

Indicate which of the following apply to the facility for a waste management activity:

Within a 3000m radius of the end of an airport landing strip	YES	NO
Within the 1 in 50 year flood line of any watercourse	YES	NO
Within an unstable area(fault zone, seismic zone, dolomitic area, sinkholes)	YES	NO
Within the drainage area or within 5 km of water source	YES	NO
Within an area with shallow and/or visible water table	YES	NO
Within an area adjacent to or above an aquifer	YES	NO
Within an area with shallow bedrock and limited available cover material	YES	NO
Within 100 m of the source of surface water	YES	NO
Within 1km from the wetland	YES	NO
Indicate the distance to the boundary of the nearest residential area	_____metres	
Indicate the distance to the boundary of the industrial area	_____metres	

5.6 Wettest six months of the year

November- April	
May -October	

5.7 For the wettest six month period indicated above, indicate the following for the preceding 30 years

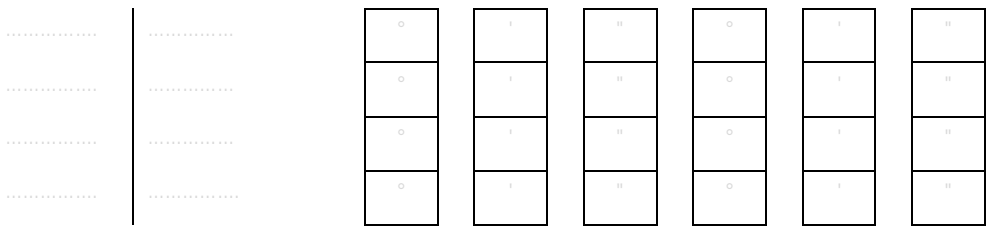
	Total rainfall for 6 months	Total A-pan evaporation for 6 months	Climatic water balance
For the 1st wettest year			
For the 2nd wettest year			
For the 3rd wettest year			
For the 4th wettest year			
For the 5th wettest year			
For the 6th wettest year			
For the 7th wettest year			
For the 8th wettest year			
For the 9th wettest year			
For the 10th wettest year			

5.8 Location and depth of ground water monitoring boreholes:

Codes of boreholes	Borehole locality	Depth (m)	Latitude			Longitude		
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"
.....	.....		°	'	"	°	'	"

5.9 Location and depth of landfill gas monitoring test pit:

Codes of boreholes	Borehole locality	Latitude			Longitude		
.....	.....	°	'	"	°	'	"
.....	.....	°	'	"	°	'	"
.....	.....	°	'	"	°	'	"



PART E: DECLARATION BY THE APPLICANT

1. The Applicant

I, **Morgam Munsamy** , declare that I -

- am, or represent[1], the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application / will obtain exemption from the requirement to obtain an environmental assessment practitioner[2];
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to –
  - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
  - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
  - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
  - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and

[1] If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

[2] If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant[3]/ Signature on behalf of the applicant:

Atha-Africa Ventures (Pty) Ltd

Name of company (if applicable):

14/06/2013

Date:

[3] If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

APPENDIX A: DETAILED PROJECT DESCRIPTION

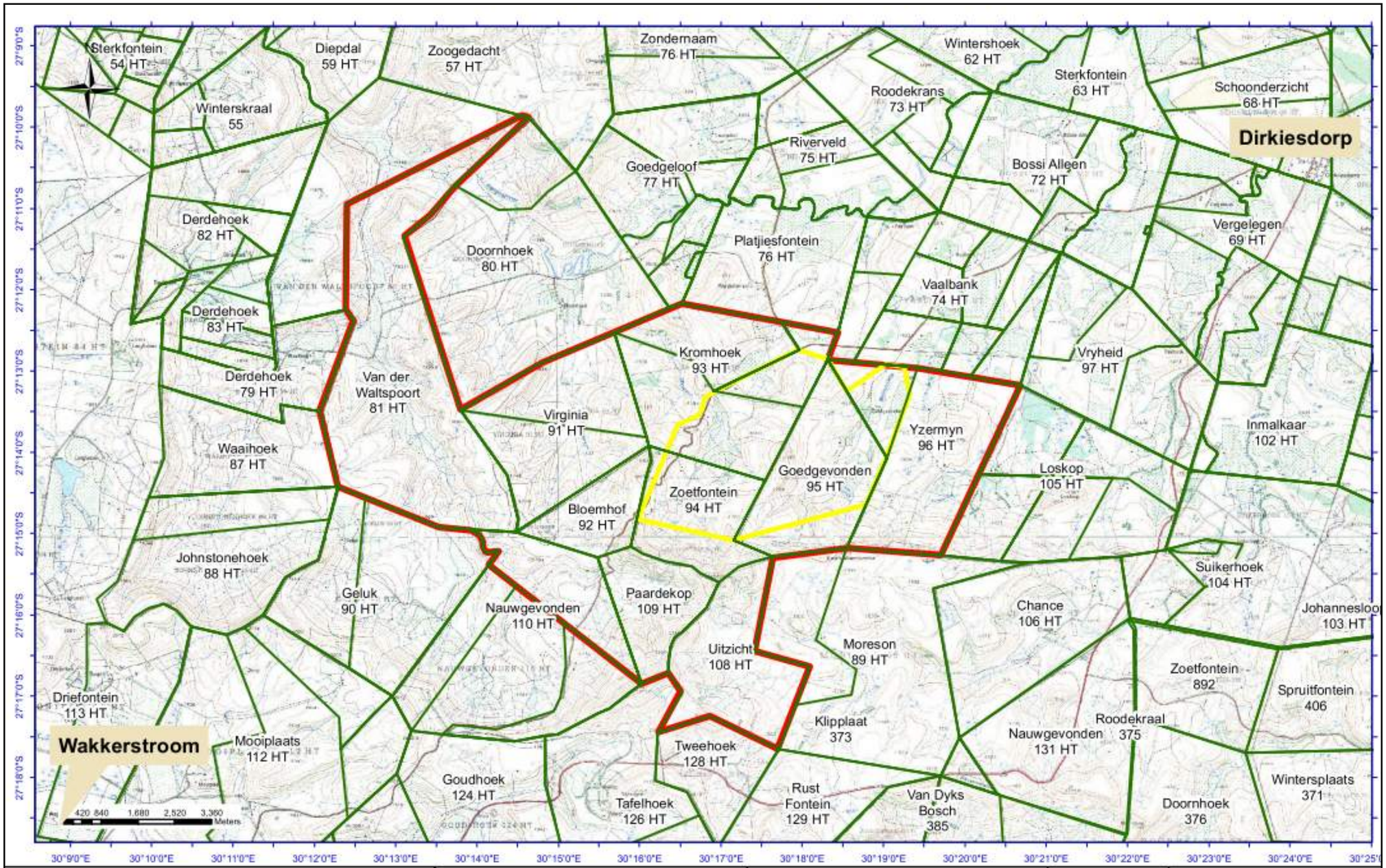
APPENDIX B: FARM OWNER CONTACT DETAILS

Property	Portion	Province	Extent (ha)	Owner Name	Contact Details
Kromhoek 93 HT	Remaining Extent	Mpumalanga	980.42	Mr PWB Uys Managed by Mr Johan Uys	Postal: PO Box 162, Volksrust 2470 Tel: 017 735 3567 Email: laansuys@gmail.com
Kromhoek 93 HT	Portion 1	Mpumalanga	204.31	Thys Uys Trust	Postal: PO Box 162, Volksrust 2470 Tel: 017 735 3567 Email: laansuys@gmail.com
Goedgevonden 95 HT	The Farm	Mpumalanga	739.45	Mr PWB Uys Managed by Mr Johan Uys	Postal: PO Box 162, Volksrust 2470 Tel: 017 735 3567 Email: laansuys@gmail.com
Zoetfontein 94 HT	Portion of the Farm	Mpumalanga	553.81	Imfuyo (Pty) Ltd Managed by Mr BP Greyling	Postal: PO Box 272, Wakkerstroom, 2480 Tel: 017 730 0411 Fax: 017 730 0531 Email: bpgrey@telkomsa.net
Yzermyn 96 HT	Remaining Extent	Mpumalanga	826.16	Mr SP Malan	Postal: PO Box 153, Volksrust, 2470 Tel: 017 735 3571 Email: malansp@vodamail.co.za
Yzermyn 96 HT	Portion 1	Mpumalanga	193.83	Mr PWB Uys Managed by Mr Johan Uys	Postal: PO Box 162, Volksrust 2470 Tel: 017 735 3567 Email: laansuys@gmail.com

APPENDIX C: LIST OF AUTHORITIES CONSULTED TO DATE

Authority	Name	Contact Details
DEA Acting Deputy Director of Environmental Programmes in Mpumalanga	Kathleen Saunders	013 759 7385
Mpumalanga Tourism and Parks Agency	Brian Morris	013 759 5478
	N Motete	013 759 5304
	Frans Kruger	013 254 0279
	Komilla Narasoo	013 759 5300
WWF-SA	Angus Burns	034 318 6158
	Charles Makuwere	078 892 6884
Mpumalanga Wetland Forum/ SANBI Provincial Coordinator	Andre Beegte	013 262 8140
BirdLife South Africa	Dr Charmain Uys	011 789 1122
	Carolyn Ah Shene-Verdoorn	011 789 1122
WESSA	Caroline Schewgman	039 975 2147
Pixley ka Seme Local Municipality	Daniel Hlanyane	017 734 6138
Mkhondo Local Municipality	Vusi Dube	082 065 4597
South African Heritage Resources Association	Moses Makhweyane	013 712 3576
Department of Water Affairs: KZN	Ntombethu Makwabasa	031 336 2810
Department of Land Affairs and Rural Development	S Nkosi	013 755 8100
Department of Land Affairs	LT Dupont	013 756 4000
Department of Labour	Millicent Motau	017 826 1883
	Blessing Dladla	017 826 1883
Pixley ka Seme Ward 3	Johannes Sangweni	071 732 9419
Khondo Ward 12	SS Mathebula	079 511 5533

APPENDIX D: TOPOGRAPHIC LAYOUT MAP



Atha Africa Ventures (Pty) Ltd
Yzermyn Underground Coal Mine
Aerial Imagery with Farms, and
Prospecting and Target Areas

Data Source:
Aerial Imagery 2730 AA, AB, AC & AD

Project:	Yzermyn Underground Coal Mine
Drawn by:	B. Holme
Reviewed by:	B. Holme
Date:	February 2013

Scale: 1:110,000

Sheet No. 24514-05

Client: Atha

Projection: TM Lo29 (WGS 84)

WSP

environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF EAP AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/
NEAS Reference Number:	DEAT/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Yzermyn Underground Coal Mine

Environmental Assessment Practitioner (EAP):[1]	Brent Holme on behalf of WSP Environmental (Pty) Ltd		
Contact person:	Brent Holme		
Postal address:	199 Bryanston Drive, Bryanston		
Postal code:	2021	Cell:	
Telephone:	011 361 1389	Fax:	086 532 8685
E-mail:	Brent.holme@wspgroup.co.za		
Professional affiliation(s) (if any)	N/A		

Project Consultant:	Brent Holme on behalf of WSP Environmental (Pty) Ltd		
Contact person:	Brent Holme		
Postal address:	PO Box 5384, Rivonia		
Postal code:	2128	Cell:	
Telephone:	011 361 1389	Fax:	086 532 8685
E-mail:	Brent.holme@wspgroup.co.za		

4.2 The Environmental Assessment Practitioner

I, Brent Holme , declare that –

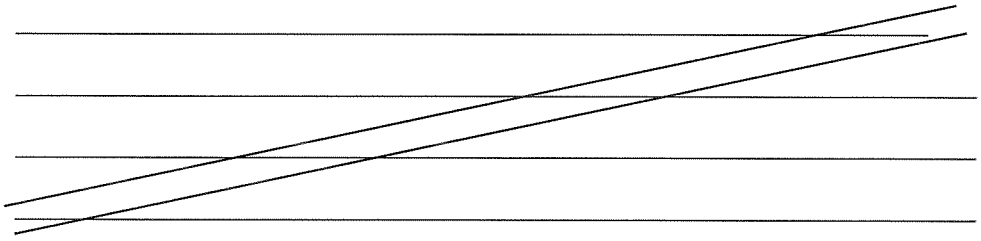
General declaration:

I act as the independent environmental practitioner in this application
I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
I declare that there are no circumstances that may compromise my objectivity in performing such work;
I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
I will comply with the Act, regulations and all other applicable legislation;
I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
I have no, and will not engage in, conflicting interests in the undertaking of the activity;
I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
I will keep a register of all interested and affected parties that participated in a public participation process; and
I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
all the particulars furnished by me in this form are true and correct;
will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~



Signature of the environmental assessment practitioner:

WSP Environmental (Pty) Ltd

Name of company:

8 June 2013.

Date:

1 Project Description

1.1 Site Location and Description

Atha holds the prospecting right for an area of 8,360 ha (comprising 10 farms) located in the Pixley ka Seme Local Municipality within the Mpumalanga Province. The detailed exploration conducted in identifying the target area measuring approximately 2,500 ha comprises three farms and a portion of an additional farm *viz.* Farms Kromhoek 93, Goedgevonden 95, Yzermyn 96 Portion 1 and a portion of Zoetfontein 94. In addition, a remainder area of approximately 4,500 ha, has been identified for possible future extension following prospecting activities. The identified target area is located approximately 30 km northeast of the town of Wakkerstroom and comprises hilly grasslands, containing ridges, plateaus and valleys, with the highest area recording 1,765 metres above sea level (masl). **Figure 1** represents a satellite image of the project area.

1.1.1 Site Sensitivities

The predominant land uses within and surrounding the prospecting area include agriculture, conservation, grassland area, cultivated land, forestry areas, vacant areas, rivers and wetlands; with only a small portion of the target area having been transformed by recent anthropogenic activities. The study area lies within the high altitude grassland biome, which is the second richest biome in terms of biodiversity in southern Africa. The target area is located within the Wakkerstroom/ Luneburg Grassland Threatened Ecosystem.

The target area consists of land classes III[1] and IV[2], which are generally unsuited to cultivation and are limited largely to pasture and range, woodland or wildlife. Restrictions are placed on these land class types as it is difficult to apply management practices as negative impacts cannot be easily corrected. The limitations placed on these land types are due to the steep slope of the area as well as the close proximity to the watercourses and the clayey nature of the soil types.

[1] Class III – Land that can be cropped only in fairly long rotation with short cropping sequence, or land that requires elaborate conservation. Subject to severe limitation.
[2] Class IV – Land best maintained under perennial vegetation, but can be cultivated occasionally if handled with great care. Subject to very severe permanent limitations.

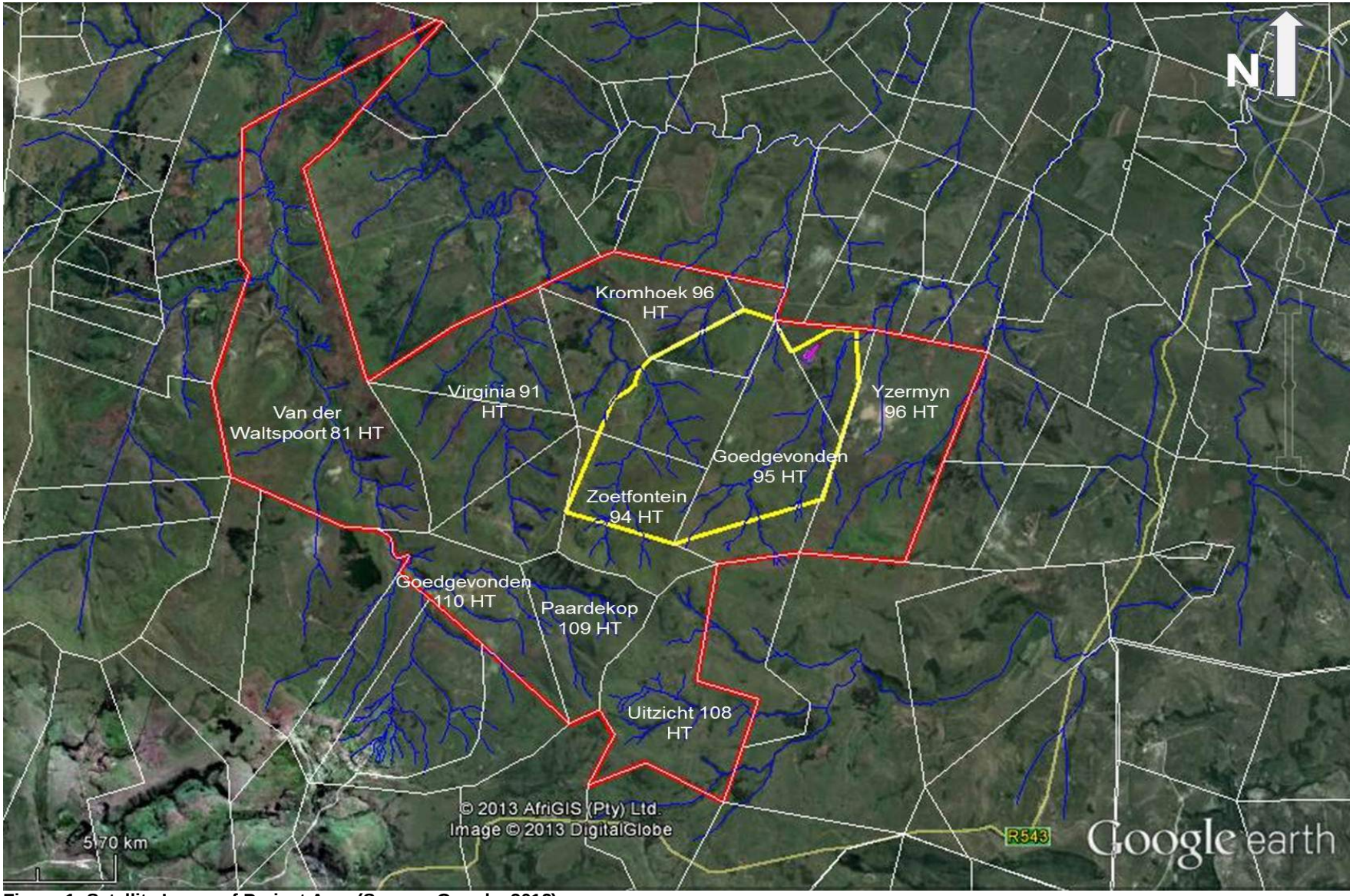


Figure 1: Satellite Image of Project Area (Source: Google, 2012)

1.2 Description of Proposed Project

1.2.1 Project Introduction

Following detailed exploration activities, a coal resource in the target area has been identified within prospecting boundary. It has been noted that the mine will utilise underground conservative drill and blast/ bord and pillar mining methods with a portal/ adit being sunk within the northern section (27°13'14.05"S; 30°18'39.25"E) of the target area. Atha will be applying for the target area as the primary mining area in the mining right application.

Although feasible coal reserves exist within the target area, a number of geological structures and faults have been identified at several stratigraphic levels, which have influence the stratigraphy and coal qualities of the coal seams. Faults present in the area have an impact on the coal seams deposition, presenting potential operating issues as the dolerite structures comprise hard rock which needs to be mined through in order to reach the coal face. This has direct impacts on the feasibility of the proposed mining operation.

Please note that no opencast mining will be considered as part of the project. An incline shaft will be developed in order to access the coal reserves of the Alfred and Dundas coal seams. Coal will be mined from underground bord and pillar mining methods (drill and blast and continuous miner operations). The coal will be removed via conveyor systems to the surface where coal wash plant will be located. In order to minimise the discard quantity, it is proposed to wash coal in two-stage washing plant that would help in maximising the recovery of saleable product from Run-Of-Mine Coal. Discard from wash plant will be deposited on a discard dump and the washed coal will be stockpiled before being transported offsite. It is estimated that an area of approximately 1,6 ha will be required for mining, and approximately 10 ha extent of area required for infrastructure, roads, servitudes, etc.

Existing infrastructure and services in the area are limited, and services such as access roads, power and water supply will need to be established. Infrastructure that will need to be constructed includes, but is not limited to, administration offices, change houses (including ablution facilities), workshops, conveyor systems, wash plant/ beneficiation plant, pollution control dams and water separation systems (clean and dirty water separation), sewage treatment plant and water treatment plant. Furthermore, a discard dump will need to be developed to store discard that is unfeasible to utilise due to its calorific value, ash content and concentration of volatiles.

It is anticipated that the coal will be transported by road to an existing coal siding (operated by Jindal) at the Piet Retief Siding near Piet Retief for dispatch to Richards Bay Coal Terminal on the east coast or to other destinations for supplies of coal (i.e. ESKOM) as appropriate. It is anticipated that the haul route will take the existing unpaved road through the village of Dirkiesdorp, which is situated about 13 km from the proposed mine site, and onto the tarred R543 to the Piet Retief Siding, located approximately 60 km away. Please note that the road will require upgrading.

1.2.2 Coal Deposit

It is proposed that the Utrecht Coalfield will be mined, comprises the Karoo Supergroup geological stratigraphic unit. The Alfred and Dundas coal seams, which form part of the Utrecht coal field, will be extracted. In the Utrecht coal field, the seams have been a major source of moderately good coking coal and require little beneficiation. The lower Dundas Seam rank varies from medium volatile bituminous to anthracitic, with the coal mined as a source of bituminous coal in the north eastern sector of the coalfield and as anthracite in the southern sector. However, the sulphur content can be high, in excess of 1%.

The Alfred Seam is of better quality in the Utrecht coal field, particularly towards the bottom portion of the seam. The seam is generally high in ash and sulphur content, but beneficiation can produce relatively high quality, low ash coal with low sulphur and phosphor.

According to Mindset, it is proposed that eight sections be deployed, four sections in the Alfred Seam and four sections in the Dundas Seam. From initial exploration, the Alfred coal seam extends from 11 to 319 m deep, with an average coal thickness of 1.65m. The raw air-dried calorific value (CV) of the Alfred Seam in the target

area varies at 26.5 MJ/kg in the northwest to 22 MJ/kg in the east. The average volatile matter (VM) content for the Alfred Seam is 19.74%, with a maximum of 22.5%. The practical yield of the first wash coal from the Alfred Seam averages 55% over the target area with a maximum of 75% in the northwest decreasing to 59% in the east (based on RB1 specification coal of 27 MJ/kg). For second wash coal (i.e. middling), the average yield is around 26.5%.

The Dundas coal seam has a 30 – 40 m parting and extends from 24.5 to 354 m below the ground, with an average seam thickness of 1.66 m (localised thinning in the east of the target area). The raw air-dried CV of the Dundas Seam stretches from 27.8 MJ/kg in the north of the target area to 24.3 MJ/kg in the south. The average VM content for the Dundas Seam is 20.1%, with a maximum of 22.5%. The practical yield of the coal from the Dundas Seam averages 54.7% over the target area with a maximum of 75% in the northwest decreasing to 58% in the east (based on RB1 specification coal of 27 MJ/kg). For the second wash coal (i.e. middling), the average yield is around 26.5%.

The coal strikes (Alfred and Dudnas Seams) north-east south-west and dips to south-east. It is estimated that the production from the mine will be approximately 180,000 to 270,000 tons per month or 23,500 to 34,000 tons per section per month, resulting in an expected yield of 2.2 to 2.5 million tons of ore per annum. The reason for the variance is based on shift selection which will be clearly illustrated on the mine plan. The *total tons in situ* of coal have been calculated at 80.32 Mt which comprise 38.82 Mt of Alfred Seam coal and 41.49 Mt of Dundas Seam coal (Mindset, 2013). The table below summarises the estimated raw coal resources for the proposed Yzermyn Underground Coal Mine.

Traditional underground shifts operate a 2-shift system per operation for five days, followed by a single shift on the sixth day. A Fulco shift system may also be utilised which will provide for a 7-day 24-hour operation. It is noted that no production will take place on the seventh day.

The deposit in the target area can be mined for at least 15 years at the abovementioned production rate. It is anticipated that additional mining activities will move into adjoining potential areas substantiated by future exploration as the mine progresses. Additional studies are being undertaken to identify the feasibility of making low quality coal available for Circulating Fluidised Bed Combustion (CFBC) Boilers in India.

Table 1: Yzermyn Underground Coal Mine Resources (Mindset, 2013)

Seam	Av Width (m)	Area (m^2)	Volume (m^3)	GTIS[3]	Geolog. Loss	TTIS[4]	CV
Alfred	1.65	15,244,013	25,047,907	38,824,256	5,823,638	33,000,618	23.95
Dundas	1.66	16,002,653	26,430,968	41,496,621	6,334,493	35,272,128	24.22
Total	*1.65*	*31,246,666*	*51,478,875*	*80,320,877*	*12,048,131*	*68,272,745*	*24.09*

The mineable coal at the proposed Yzermyn Underground Coal Mine will be accessed by two declines from a single adit which will intersect the Alfred and Dundas coal seams at their respective horizons. A single vertical ventilation shaft will be required. The raw and washed qualities of the coal is summarised in the table below:

Table 2: Raw and Washed Coal Qualities (Mindset, 2013)

Type	Resource	Moisture %	Ash %	Volatiles %	Carbon %	Sulphur %	CV (MJ/kg)	Yield %
Raw	Alfred	2.46	23.94	19.74	53.88	1.23	23.94	100
Raw	Dundas	1.80	25.82	18.62	53.76	0.96	24.39	100
Washed Export	Alfred	8.1	15.4	21.2	57.8	1.04	5900 Kcal/Kg	51.8% particles

[3] GTIS – Gross Tones In Situ
[4] TTIS – Total Tones In Situ

Type	Resource	Moisture %	Ash %	Volatiles %	Carbon %	Sulphur %	CV (MJ/kg)	Yield %
Washed - Middling	Alfred	8.4	29.7	17.2	50.40	1.14	21.5 Mj/Kg	30.4% particle
Washed Export	Dundas	7.4	17.50	19.20	57.80	0.89	5900 Kcal/Kg	56.20% particle
Washed Middling	Dundas	7.8	32.50	15.30	50.20	0.69	21.5 Mj/Kg	23.5% particle

1.2.3 Mining Method

According to the Mine Works Programme (2013), the estimate coal reserve within the target area comprises a total of 50.14 million m^3 of coal over a block area of 30.8 million m^2. Currently, it is anticipated that the target area has sufficient reserves to mine approximately 2.2 to 2.5 million tons of ore per annum, resulting in a Life of Mine (LoM) of approximately 15 years based on current technology. It has been noted that additional reserves can extend the Yzermyn Mine LoM.

It has been previously noted that no opencast mining will be undertaken as part of the proposed mining operation. A number of underground coal mining methods have been assessed and are detailed in the scoping report. It is proposed that conventional drill and blast, or continuous miner, bord and pillar mining be executed for the project. A box cut has been proposed that will limit the surface disturbance at the adit entrance.

1.2.3.1 Development of Adit Entrance

The coal seams dip from west-north-west to east-south-east and due to the depth of the seams below natural surface the northern limit is considered the only option to establish access. The coal field seems to be faulted into various blocks and it must be accepted that various faults will have to be negotiated during the life of the mine.

Although the valley to the south-west of the western adit might prove to be a more viable option for the location of an adit in terms of box cut excavation volumes it was not considered due to very limited space, several watercourses, the close proximity of the public road and long hauling distances across water courses to a viable plant site.

Additional drilling in and around the vicinity of the proposed adit is required to confirm the presence of the coal seams, overburden depth, soft and hard overburden separation as well as the presence and extent of faulting.

Methodology:

- Adits
  - A 10 degree dip towards the highwall.
  - Hard material battered at 70 degrees to ensure stability.
  - A 5m horizontal bank between the toe of the soft material and hard material drop-off.
  - Soft material stripped to a depth of 7m and battered at a slope of 1:5 (1 vertical to 5 horizontal).
  - All the inclines are planned based upon a 10 degree incline, 7m wide by 3m high.
  - Steeper inclines will have a long lasting detrimental effect on machines throughout the life of mine.
  - Width and height of inclines are to ensure maximum ventilation quantities and to reduce pressure on ventilation fans.
  - Two inclines at 20m centres, a shared belt road and a shared travelling way are planned to both seams.

- A vertical upcast ventilation shaft of 107m in depth can only be established once mining on the Dundas seam has commenced.

Once mining commences and depending on roof and pillar conditions, the mining parameters will be 6m wide bords, mining to seam height and pillar centres depending on depth to seam. Primary development safety factor to be not less than 2 and all other mining panels to be worked to a safety factor of not less than 1,6. Safety factor formulas to be used will be Salamon's formula where the pillar width to mining height ratio is less than 5 and the Squat Pillar formula where pillar width to mining height ratio is equal or exceeds 5.

Figure 2 below illustrates the schematic mining layout (excluding associated mine infrastructure). **Figure 3** illustrates a detailed plan showing the adit and proposed layouts of the Alfred and Dundas Coal Seams.

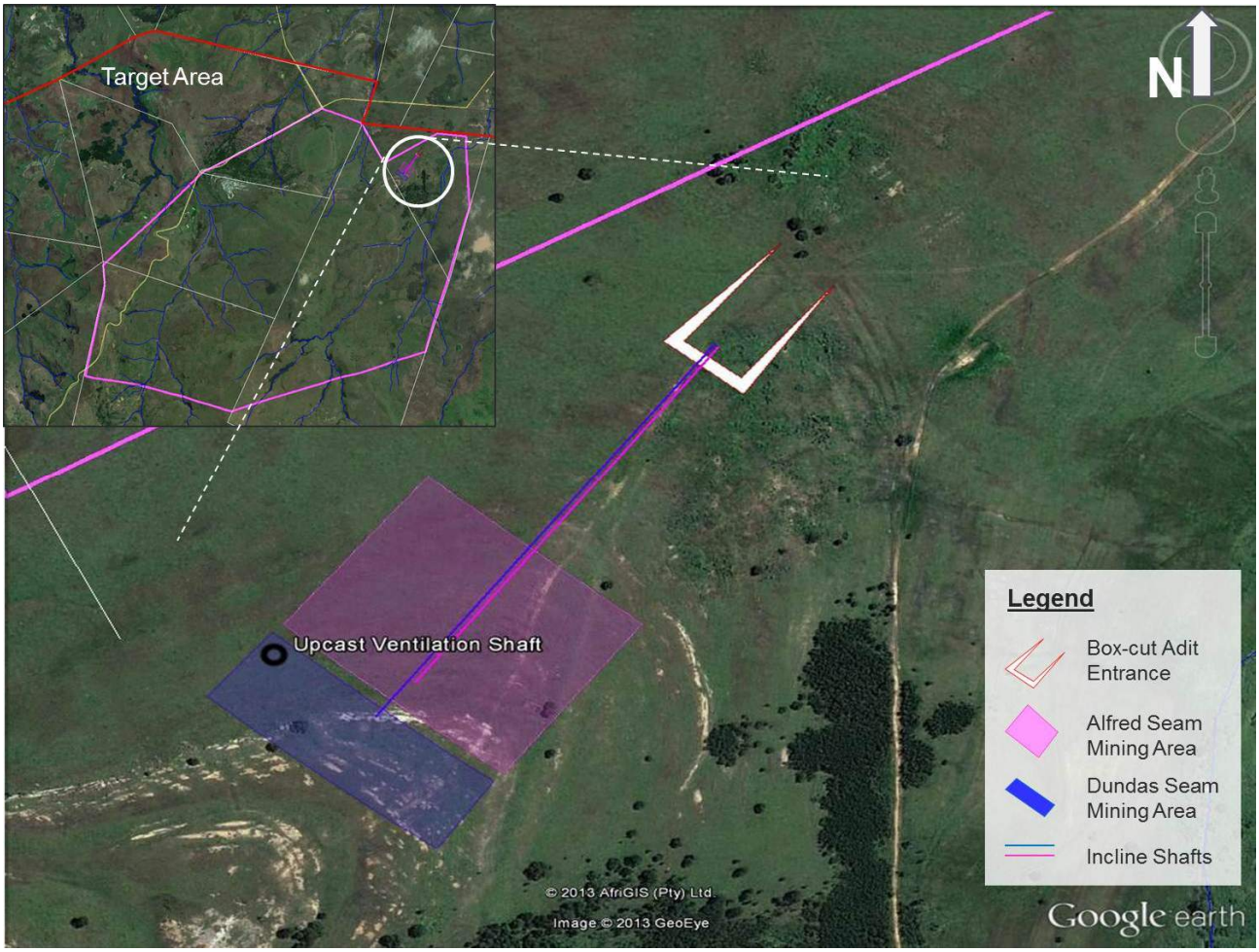


Figure 2: Image Illustrating Box-cut Adit and Mining Area Overlay (Source: Google Earth, 2013)

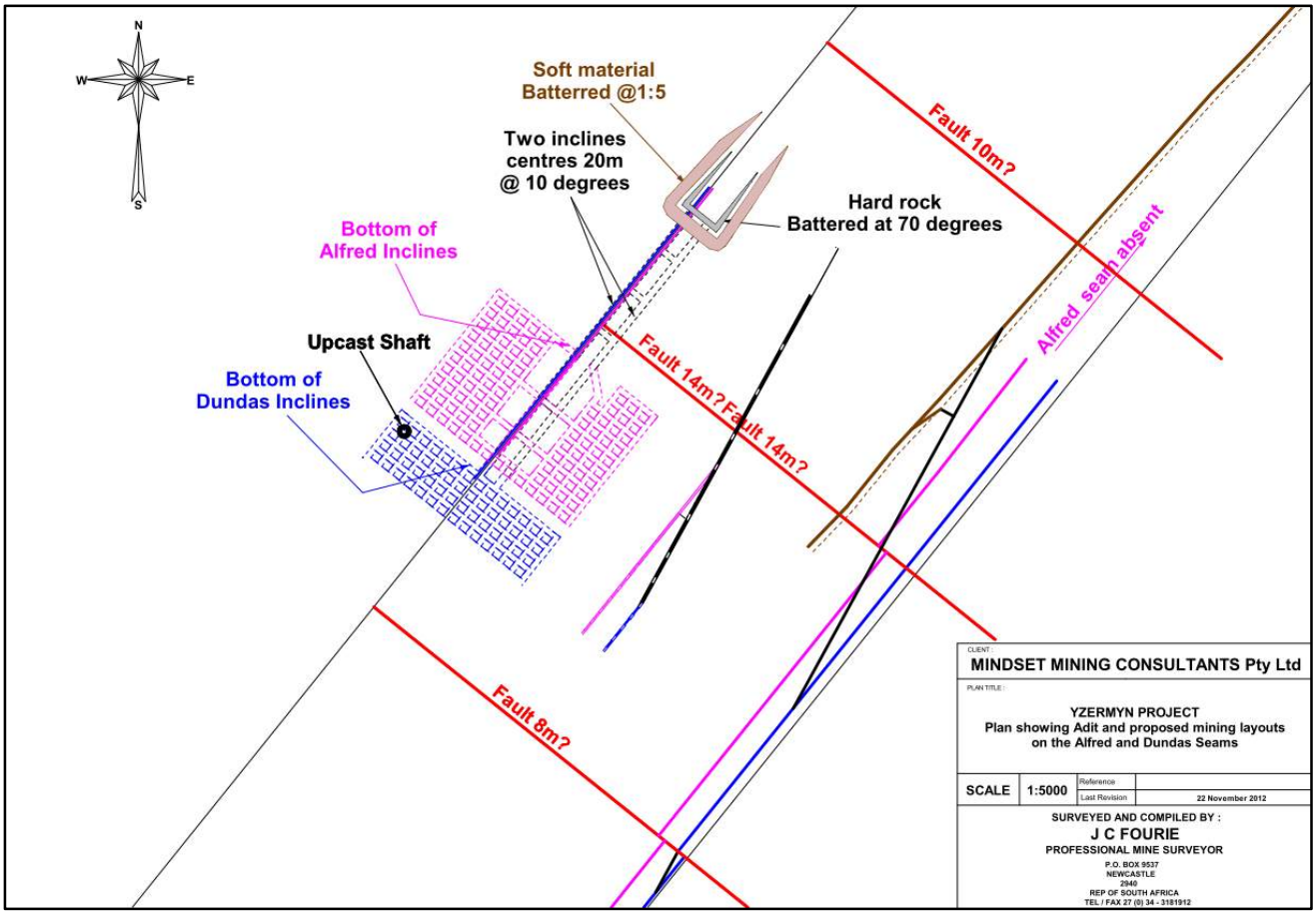


Figure 3: Plan Illustrating Adit and Proposed Mining Layouts of the Alfred and Dundas Coal Seams

The total adit footprint area has been calculated to be 0.84 ha. It is proposed that the overburden and waste rock excavated during the installation of the adit will be used for infill for a foundation where infrastructure such as mining offices, ablution facilities, security, etc. may be constructed (**Figure 4** illustrates a schematic representation of the overburden excavation and infill). A portion of the overburden will also be stockpiled to the northwest to act as an earthen berm to restrict the visual impact that the mine may have on the surrounding environment.

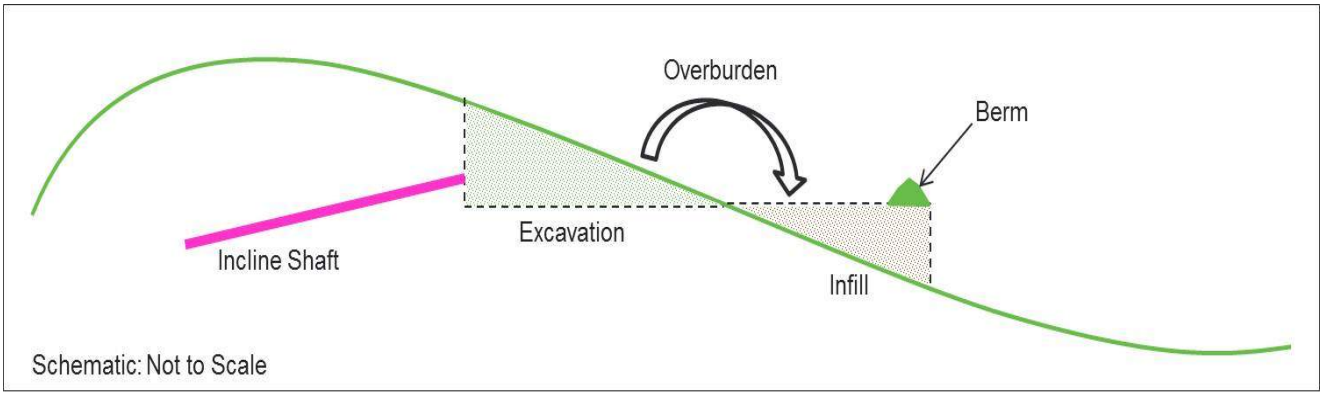


Figure 4: Schematic Illustration of Box-cut Installation

The table below details the specific information associated with the installation of the adit and excavation of the box-cut.

Table 3: Volumes associated with the Box-cut

Adit	Soft Overburden	Hard Overburden	Total Overburden	Tunnel to Alfred	Tunnel to Dundas	Total Tunnel Volume	Total Rock Volume
Eastern	42,192 m^3	19,678 m^3	61,870 m^3	424 m	385 m	16,660 m^3	36,338 m^3

Table 4: Volumes associated with the Yzermyn Adit

Infrastructure	Total	Volume
Alfred Seam		
2 x incline shafts	382 m	8,022 m^3
3 x ventilation connections	42 m	882 m^3
Total Alfred Rock Work Distance	424 m	8,904 m^3
Dundas Seam		
2 x incline shafts	312 m	6,552 m^3
2 x ventilation connections	28 m	588 m^3
Brushing of belt road	45 m	616 m^3
Total Alfred Rock Work Distance	385 m	7,756 m^3
Upcast Ventilation Shaft		
1 x ventilation shaft (5m diameter)	107 m	2,100 m^3

In accordance with GNR.704 of the NWA, no mining or mining activities may occur within the 100 year flood lines of the intermittent stream that runs through the project area and outside of a 100m buffer zone from streams, the area which is greater will be adhered to. In the event that Atha plans to mine with in this area, exemption from GNR.704 will need to be applied for before mining commences.

Furthermore, in accordance with the recently drafted Conditions of use towards a Best-practice Guideline for Wetland offsets in South Africa developed by SANBI, no disturbance may occur within 500m of any wetlands within the project area. This document also defines offsets that will be required for the project. Please note that to ensure best practise, it is recommended that no construction or development occur within 500 m of any wetland and within 100 m of a river.

1.2.3.2 Mining Methods Proposed

Coal mining is conducted via opencast or underground mining in South Africa. A number of mining methods have been assessed during the scoping phase and are detailed in **Section 7**. The proposed Yzermyn Underground Coal Mine will utilise bord and pillar mining to extract the coal reserve. Bord and pillar mining is commonly used for flat or gently dipping bedded ores or coal seams.

Once the coal seam has been accessed, the ore is mined utilising a regular grid of mining tunnels and involves progressively excavating panels into the coal seam whilst leaving behind pillars of coal to support the mine. The coal is then removed in a regular pattern while the rooms are mined out through the tunnels by drill and blast methods or a Continuous Miner (CM) and deposited onto a conveyor. The remaining coal contained within the pillars may be won at closure by a retreating system, starting at the farthest point from the stope access, allowing the roof to collapse and fill in the stope. This allows a greater recovery as less ore is left behind in pillars. According to Mindset (2011), approximately 40% of the coal reserve may not be mined as this coal will remain as pillars. The figure below illustrates a typical bord and pillar method. Refer to **Figure 5**.

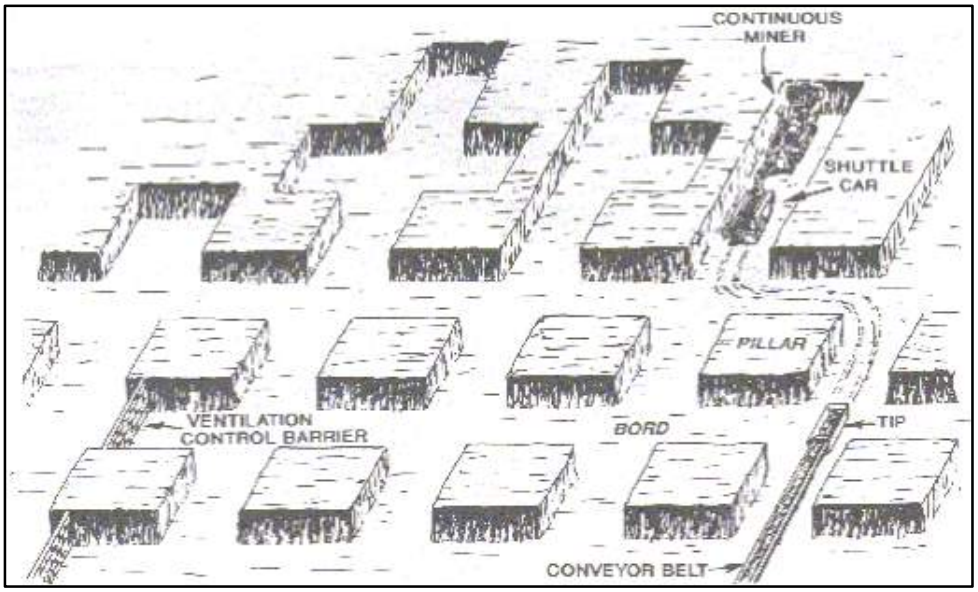


Figure 5: Typical Bord and pillar Layout (Source: Wells *et al,* 1992)

Two possible mining methods are considered as part of this project for the bord and pillar technique, which is discussed below.

Drill and Blasting

Drilling and blasting is required in order to excavate the opening of the adit and access way to the proposed underground mining area. The conventional drill and blast excavation method is the most widely used technique in mining hard rock. During excavation by conventional drill and blast method, the work face of the rock is perforated to 380 mm Augur drill holes. Standard shot-holes will then be drilled around the auger holes. These holes are then filled with explosive and detonated, causing the rock face to collapse, and the new tunnel surface is reinforced (using shotcrete, rock bolts, spiling and lattice girders). The blasted rock is collected by battery driven scoops and transported to the feeder breaker for discharge onto a conveyor system to the wash plant for beneficiation. This method provides better flexibility when handling potential weakness zones, although is more labour intensive and has a higher operating cost than CM operations. **Figure 6** illustrates a schematic illustration of a drill and blast operation.

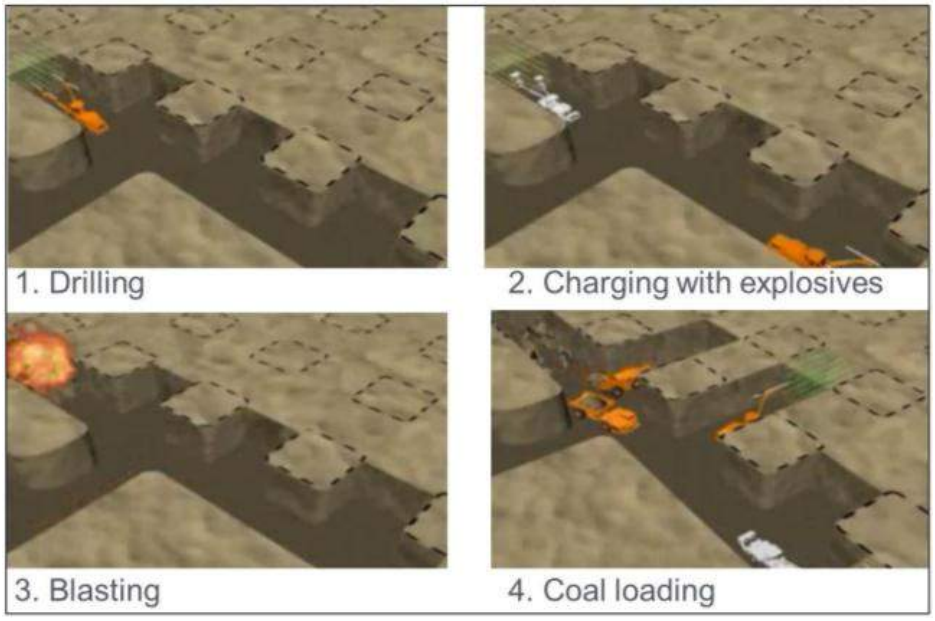


Figure 6: Schematic Illustration of Drill and Blast Mining

Please note that it is understood that a blasting and vibrations assessment will need to be undertaken during the ESIA phase of the project.

Continuous Miners

Continuous mining method utilise a CM machine which is a large machine with a rotating steel drum equipped with tungsten carbide teeth that scrape ore from the coal seam. The CM are utilised for bord and pillar type mining and produces a constant flow of ore from the working facing of the mine. The CM rotates the oscillating steel drum to cut away designated sections of the coal bed. When the coal is extracted, a conveyor system is utilised to transport and load the coal from the seam.

CM mining methods offer larger productivity levels than drill and blast methods, however the capital costs associated with CMs are more expensive (R 36.64 per ton as opposed to R 50.22 per ton drill and blast method). This method lends itself suitable to a range of mining heights and is very useful in flat seams with good floor conditions. Due to the weight of the machinery and its required passage over the floor whilst cutting, it requires a stable floor in order to ensure that the floor is not cut with the coal increasing contamination of the ore. In areas where shale is present in the floor, its interaction with water may lead to the decomposition of the floor posing stability issues for the CM operation. The figure below illustrates an example of a CM.

Figure 7: Typical Example of a Continuous Miner

Although CM has a higher productivity level than drill and blast methods, it requires increased capital and may be damaged when mining into dolerite intrusions. Therefore, it is proposed that both methods of mining be employed to obtain a good spread, providing flexibility of operations. **Table 5** summarises the equipment that will be required for each mine section. All equipment barring the load haul dumper and battery scoops will be electronically driven.

Table 5: Mining Equipment Required

Continuous Mining Method	Drill and Blast Method
1 x continuous miner	1 x face drill
3 x shuttle cars or battery scoops	1 x feeder breaker
1 x roof bolter	1 x transformer
1 x feeder breaker	1 x section switches
1 x transformer	3 x scoops
1 x section switches	1 x roofbolter

Continuous Mining Method	Drill and Blast Method
1 x pump	1 x load haul dumper
1 x load haul dumper	1 x hilti electric drill system
	1 x hilti flameproof panel
	1 x pump

1.2.3.3 Raw Coal Handling

Once the raw coal has been extracted, it will be delivered by conveyor from the underground operations to a 12,000 mt open stockpile ahead of the coal handling and preparation plant (wash plant). The stockpile will have sufficient capacity to accommodate differences and fluctuations in the production rates between mining and processing. The raw coal stockpile capacity is calculated on the following operating assumptions:

- Underground operations manage 2-shift per day operation for 5-days, followed by a single shift on the sixth day and no production on the seventh day;
- Average raw coal production per shit will be 4,400mt (as received);
- Maximum raw coal production per shift can be 4,800mt;
- Wash plant nominal capacity at 320mt/ hr (air dried), operating 360 days per year with 90% availability equating to an annual production of 2.5Mt (as received basis assuming 4.24% total moisture); and
- The raw coal stockpile capacity will be designed to allow the wash plant to operate 22 hours per day, seven days a week, with an eight hour planned maintenance shutdown weekly.

It is proposed that underground feeder breakers will reduce the raw coal material to a nominal 200mm top size. The wash plant cannot accept material exceeding this size.

It is anticipated that the raw coal stockpile will be positioned on top of a tunnel from which the raw coal will be drawn to the bottom of the stockpile by tunnel vibratory feeders as a design rate of 327 mt/ hr and fed onto a 50mm vibratory screen. The oversize material from the vibrator screen will be fed to a crusher from where the crushed material will be recycled back to the 50mm vibratory screen. To minimise the production of fines from the crusher, it is assumed that the crusher design and set-up will result in an operating efficiency of 90%. This will result in a build-up of oversize material within the crusher circuit with the feed to the 50mm vibratory screen calculated to be 427 mt/ hr.

1.2.3.4 Coal Processing

The extracted coal from the underground mine will require further beneficiation. Following vibratory screening and crushing, the resultant material will be transferred via covered conveyor to a beneficiation/ wash plant. The plant is been designed to produce this multigrade product. Beneficiation of the coal will involve washing, crushing and screening in order to separate the waste rock and unfeasible coal from the saleable coal. This will be undertaken via a desliming process, washing in a spiral plant, flocculation of ultra-fines and washing of the product in a dense medium separator (DMS) cyclone plant. The process is described in detail below.

The dense medium section will comprise conventional two-stage wash. The crushed raw coal material (0 x 50 mm) will be fed to a desliming screen from which the coarse material (0.63 x 50 mm) will feed an 800 mm diameter DMS cyclone module for a low gravity wash at a 1.49 relative density (RD). The underflow from the primary cyclone will be transferred to a secondary cyclone for a high gravity wash at 1.64 RD. This operation will remove 16.6% of the material as coarse discard. This discard will be dewatered over a 0.63 mm drain-and-rinse screen before being conveyed to a 200 mt silo from where it will be loaded and transported to the dry-disposal discard dump by the appointed contractor.

On average 56.9% of the feed to the cyclone module will report to the primary cyclone overflow. Subsequent dewatering treatment, including a drain-and-rinse screen and screenbowl centrifuge, will deliver a 27.5 MJ/kg thermal coal product. The secondary cyclone overflow after dewatering treatment will deliver a 21.0 MJ/kg

thermal coal product with an average recovery yield of 26.5%. Both products will be conveyed to separate clean coal open stockpiles for subsequent delivery loadout, either by rail or road truck.

It is assumed that both products will be sold unsized and that no dry product screening capacity is required.

The fine fraction (0 x 0.63mm) from the desliming screen will be fed into a classifying cyclone to remove the ultra-fine material (<150 micron). The fine fraction (0.15 x 0.63mm) will be upgraded by a two-stage spiral plant. The ultra-fine material will feed a thickener before being sent to a filter press. The resultant "dry" material will be conveyed to the discard silo for dry disposal. The spiral plant will removes25.6% of the fine material as discard. This discard will be dewatered over a 0.5mm dewatering screen before being conveyed to the discard silo for dry disposal.

On average 43.9% of the fine material feed to the spiral plant may be recovered as a 25.0 MJ/kg coal product, which after dewatering and drying in a screenbowl centrifuge (estimated total moisture of 13%) will be blended with the 27.5 MJ/kg (adb) cyclone product to produce a 5,900 kcal/kg net as received (NAR) export quality thermal coal product. A further 30.5% will be recovered as a middlings product (product in mineral content between a concentrate and a tailing), which after dewatering and drying will blend with the 21.0 MJ/kg secondary cyclone product to produce a low CV thermal coal product with 21.5MJ/kg. Equipment that will be used for the proposed mine is detailed in **Table 24** below.

It is expected that process water will be sourced from boreholes and dirty runoff water collected in the pollution control dams on the surface. Water consumption has been calculated to be 0.2 m^3/mt ROM, which equates to a monthly water consumption of 40,000 m^3/month.

Discard material generated from the beneficiation process will be transported from the wash plant via road or conveyor to a nearby permanent discard dump for stockpiling. The product yield produced from the beneficiation process will be stockpiled at a designated product stockpile area located in close proximity to the wash plant. Coal transport vehicles will load the product coal and may transport the coal via road to Eskom power stations and to the Piet Retief Siding.

Table 6: List of Equipment to be utilised

Activity Area	Equipment Required
Raw Coal Handling	2 x vibratory feeders 1 x double roll crusher Feed conveyor (walkways/ weightometer) Recirculating conveyor Dry vibratory screen (single deck)
Desliming Plant	Feed conveyor (walkways/ weightometer/ automatic swing sampler) Wet vibrating desliming screen Underflow tank Desliming slurry pump Classifying cyclone Primary DMS feed conveyor
Spiral Plant	First stage washing Second stage washing 3 x fine slurry pumps 3 x fine product dewatering screens 3 x tanks 3 x dewatering cyclones 2 x screenbowl centrifuges

Activity Area	Equipment Required
Ultra-fines	Thickener underflow pump Flocculent addition Lime/ acid neutralising agent dosing Process water (including process water tank and pump)
DMS Cyclone Plant	Mixing tank 2 x cyclone feed pumps 2 x DMS cyclones 3 x drain and rinse screen 1 x drain screen 2 x heavy media pumps Header box Wet drum magnet Demagnetising coil 2 x centrifuges
Stockpiling	Product conveyor (weightometer/ automatic sampler) Middlings conveyor (weightometer/ automatic sampler) Discard conveyor (weightometer/ manual sampler) Discard bin
Extras	Density controller 2 x MCC Tramp metal over belt magnet

It is proposed that the vehicles will utilise the existing road infrastructure which will be upgraded to the town of Dirkiesdorp. The vehicles will then travel on the R543 to the Piet Retief Siding located approximately 60km east, near Piet Retief. Coal will either be stockpiled at the siding or loaded into wagons before being transported by rail to Richards Bay Port Terminal for export.

1.2.3.5 Coal Market Identified

Local Thermal Coal Demand and Supply

Currently, domestic thermal coal demand comprises 73.6% of total demand/ production for South Africa. This coal is primarily used to produce electricity by Eskom and industrial applications such as the production of synthetic fuels by Sasol. Increased local demand is expected to be driven by the opening of the Sasol Mafutha plant, an increase in export capacity coupled with increased international demand, the increase in load factor of current power stations, the return to operation of the Grootvlei, Camden and Komati power stations, and the new coal fired power stations (Medupi and Kusile).

South Africa is heavily reliant on thermal coal for power generation, as it counts for approximately 85% of Eskom's installed capacity. Eskom is currently undertaking a 12,000 mW build programme; the fifth largest in the World. This will increase Eskom's capacity from 41,939 MW to 53,939 MW and will ultimately lead to an increased demand of thermal coal. The importance of coal for electricity generation was also identified in 2008 when low coal stocks, poor quality coal, wet coal, inadequate maintenance and technical problems resulted in rolling blackouts across South Africa.

Thermal coal is also used in the industrial sector through the production of steam and process heat for manufacturing applications and the production of coal-based synthetic liquids. Sasol operates two Coal-to-Liquid plants that supply up to 150,000 barrels of synthetic liquids per day, accounting for 20% of South Africa's total liquid fuel supply.

The South African coal industry produced approximately 238.8 million tons in 2009. The Mpumalanga Province contains the bulk of South Africa's marketable coal reserves (62%), located in Witbank, Ermelo and Highveld coalfields. The Limpopo Province contains 32% of South Africa's thermal coal and 88% of the country's coking coal reserve. According to Wood Mackenzie's analysis of existing operations and proposed projects indicates an increase in South African production to approximately 333 Mtpa by 2015, an increase of some 73 Mtpa from 2010. It is envisaged that the production of coal in South Africa may increase to 374 Mtpa by 2019 (Mindset Mining Right Application, 2013).

Export Demand

Worldwide coal consumption increased from 0.5 billion tons to 7.3 billion tons from 2000 to 2008, representing a 45.5% growth. This was largely driven by China and India's increased coal usage and is expected to continue with China's increasing industrialisation and growth. Although countries such as India and China have extensive coal reserves, there are difficulties exploiting these resources rapidly enough and in some circumstances, with inadequate safety and efficiency. This has resulted in the emergence of large net importers of coal such as China and India, and additional mid-tier importers such as Thailand, Malaysia and Chile (Mindset, 2013).

As noted previously, an amount of 238.8 million tons was produced in South Africa in 2009. Of this amount produced, 175.7 million tons was utilised locally (73.6%) and 63.1 million tons was exported (26.4%). Demand for coal in South Africa is increasing with increased demand for electricity and power. The majority of South African coal is exported via the World's single largest export terminal, the RBCT. The RBCT was upgraded in 2010 which expanded the terminal's capacity to 91 million tons. The rail infrastructure however remains inadequate with the existing rail capacity to the RBCT limited to less than 65Mtpa. It is known that Transnet Limited has committed to expanding the Richards Bay railway line to 81 MTpa in 2014/ 2015.

Current market conditions as well as rising Chinese and Indian coal demand indicate that the requirement for export coal may continue to increase in the future. With the current market assessment rate of between $ 84.57 per ton and $ 88.60 per ton of export thermal coal, demand is available for export coal.

Anticipated Production

The proposed Yzermyn Underground Coal Mine will produce a C grade steam coal (27.5 MJ/kg) for export purposes and a D grade coal (21.5 MJ/kg) for Eskom. Traditional power generators issue annual enquiries for one-year supply contracts. Contracts will be negotiated one year prior to the becoming operational. Marketing surveys indicate that there is a strong demand for C-grade coal on the international market. According to the mine works programme (Mindset, 2013), the following product will be generated from the proposed mine:

Table 7: Product Yield Market Split

Product	Total Tons (Annually)	Proportion
Power station D grade coal	597,840	32.6%
Export C grade coal	1,234,032	67.4%
Total	**1,831,872**	**100%**

1.2.4 Mine Infrastructure and Activities

The following structures and infrastructure will need to be installed and constructed for mining activities to commence and operate. Please note that additional information will be obtained and included as part of the ESIA process.

1.2.4.1 Power Supply

A power supply is essential for the operation of the mine workings. Power supply infrastructure including transformers and power lines are to be planned in partnership with Eskom. An alternative power supply to be considered is the use of diesel generators, however the costs associated are very high and the impact on air quality will be substantial in contributing to the cumulative impact of the mine on the natural environment. The use of generators is also expensive, with costs being close to five times the cost of Eskom power.

It is proposed that a new NPSPL 132/ 22 kV substation be constructed and installed in close proximity to the proposed mine. The proposed substation will form part of the existing Normandie 132 kV system network and will be supplied from the Geelhoutboom 132/ 22 kV and 132/ 11 kV substation, located approximately 40 km north of the proposed mine. The Geelhoutboom substation forms part of the Normandie High Voltage network.

It is proposed that the following will need to be constructed and installed in order to obtain power for the mine:

- 132 kV feeder bay at Geelhoutboom substation;
- Approximately 36 – 40 km 132 kV chickadee power line from the Geelhoutboom substation to the substation at the mine; and
- 1 x 10 MVA 132/ 22 kV substation in close proximity to the proposed mine.

An approximate two-year waiting period is required from the date of application to Eskom for the provision of power to a new site. Negotiations are currently underway with Eskom regarding the power supply to the site, but the use of generators could also be considered as an interim supply measure.

1.2.4.2 Water Supply

An efficient water supply will be required for the mine, which will be used for the wash plant, potable water, dust suppression and ablution facilities/ change houses. The water may be obtained from one, or a combination, of the following sources: municipal water, borehole water, or water from surrounding dams. The mine may need to construct a water storage facility as the mine may use a large quantity of water on a daily basis. The water storage facility will provide provision for water in the case of a lack of supply for various reasons or in the case of an emergency on the mine. The storage facility will also limit the volume of groundwater discharge that may need to be dewatered from underground workings.

A current hydrological study is underway to assess the groundwater regime and potential supply sources. It will be necessary to apply for a WULA and following commencement of commercial production, Atha may be required to obtain an Integrated Water Use License Application (IWULA) and an Integrated Waste Water Management Application (IWWMA).

1.2.4.3 Access Roads

Sufficient access roads will need to be established to ensure uninterrupted access to the mine. Currently a 12 km gravel road exists which is not considered suitable. The road will need to be upgraded (concreted or tarred) to manage anticipated traffic volumes as well as the weight of the vehicles which will be transporting the coal.

Depending on the level of design selected for the road construction, it is estimated that the cost will range between R 550,000.00 and R 3,200,000.00 per kilometre. Aligned with the envisaged production output averaging 5,000 tons per day, or 170 road-haul-trucks, will use this road on a daily basis.

1.2.4.4 Adit

An adit will need to be sunk in order to access the underground workings. Refer to **Section 1.2.3.1** for a detailed description of the aspects associated with the adit.

1.2.4.5 Conveyor System

A conveyor system will be installed in order to transport the ore from the underground working face to the processing plant. It is proposed that additional conveyors may be installed to transfer the discard material to a discard dump, and transport the coal product to an ore stockpile prior to removal by vehicles.

1.2.4.6 Beneficiation/ Wash Plant

A beneficiation/ wash plant will need to be constructed, which will include a desliming plant, spiral washing plant and a DMS cyclone plant. The ore material from the underground workings will be washed, crushed and screened in the processing plant. The process separates the different grades of coal. The prime grade and middling products will be taken to respective market and only the rejects (around 20% of ROM) will be stored on the discard dump. This is described in **Section 1.2.3.3** and **Section 1.2.3.4**.

1.2.4.7 Discard Dump

A discard dump will need to be established where discards from wash plant will be stockpiled. It has been noted that the more modern 'humpback' discard dump design will be utilised that can be revegetated/ rehabilitated concurrent with operational mining activities.

1.2.4.8 Pollution Control Dam

A pollution control dam (PCD) will be required for the storage of contaminated water originating from the processing plant and other mining activities. Water contained within the PCD will be utilised as process water for the mine. The PCD should be lined and constructed in accordance with the Department of Water Affair's Best Practice Guidelines.

1.2.4.9 Upcast Ventilation Shaft

Upcast ventilation shaft is proposed to be constructed in order to assist with air circulation in the mine. An upcast shaft returns air to the surface from the underground workings. Dust, heat and gasses from the underground workings are circulated out of the underground workings via the upcast shaft. Air flow is produced by a main fan which creates a difference in pressure between the shaft systems and the atmospheric pressure at the surface.

1.2.4.10 Clean and Dirty Water Systems

Clean and dirty water systems will need to be constructed in order to ensure clean and contaminated water is kept separated within the mine area. Stormwater systems may also be constructed and included into the clean water system, providing the runoff water cannot become contaminated by any mining activities.

1.2.4.11 Boreholes

Boreholes may be required to be sunk at strategic locations within the target area. The purpose of the boreholes includes the monitoring of groundwater quality and the suppression of the water table ahead of mining (dewatering).

1.2.4.12 Railway Siding Infrastructure

Railway siding infrastructure may need to be upgraded to handle the increased volume of coal product that will be stockpiled at the Piet Retief siding prior to loading onto wagons and transport to Richards Bay Port Terminal.

1.2.4.13 Offices, Control Rooms, Explosives Magazine, Workshops, Ablution Facilities and Parking

Offices, control rooms, explosives magazine, workshops, ablution facilities and parking areas will be required for the mining activities. According to Mindset, portable administration offices will be installed to save costs during the mine establishment phase as well as during the closure and rehabilitation phases. Workshops for mining maintenance will be required to be constructed. Furthermore, the construction of a treatment facility for sewage may be required for the mine.

1.2.4.14 Aboveground Storage Tanks

Aboveground storage tanks for the onsite storage of diesel and/ or dangerous goods.

1.2.4.15 Waste Storage Areas

Waste storage areas for the temporary storage of general and hazardous waste that may be generated from the mining activities.

1.2.4.16 Sewage Treatment Plant

The mine may be required to construct and operate a sewage treatment plant in order to manage the sewage generated as a result of the onsite employees. The sewage treatment plant may be managed by a third party and may be constructed with additional capacity to treat surrounding communities' sewage.

1.2.4.17 Water Treatment Plant

It is anticipated that waste water and water containing contaminants may be generated. Therefore, a water treatment plant will be required for the mine. As with the sewage treatment plant, the water treatment plant may be contracted to a third party and constructed with capacity to supply surrounding communities with potable water. It is anticipated that the water treatment plant may be required to be operational following mine closure; this will be assessed during the ESIA phase of the project.

1.2.4.18 Fences and Security Gates

Fences and security gates will also need to be constructed and installed to ensure no unauthorised entry to the mine.

1.2.5 Potential Employment Numbers and Transport/ Housing

1.2.5.1 Employment

It is anticipated that a total of 576 people will be required to operate the mine when in full production with eight operating sections, based on a 2-shift operation. Please note that this number does not include contractors. It has been noted that the employment numbers for the first two years will be 280 (Year 1) and 425 (Year 2) people with 576 employees required from year three. The breakdown of labour is detailed in the table below:

Table 8: Employment Breakdown

Category	Year 1	Year 2	Years 3+
Senior Management	5	6	7
Professional qualified and experienced specialist and mid-management	8	12	15
Skilled technical and academically qualified workers, junior management, supervisors, foreman and superintendents	67	94	137
Semi-skilled and discretionary decision making	200	313	417
Total	**280**	**425**	**576**

It is proposed that semi-skilled and unskilled labour will be obtained from the Gert Sibande District Municipality, specifically from the Pixley ka Seme Local Municipality and Khondo Local Municipality, subject to the recommendations contained within the Social and Labour Plan (SLP). It has been conveyed that where practicable, employment will be sourced locally with the intent to develop local skills required by the mine.

However, the more highly skilled personnel such as Artisans, Foremen, Shift and Mine Overseers and Mining and Mechanical/ Electrical Engineers will be more difficult to source, and may be sourced on a National level. Piet Retief is not situated in a recognised mining area and is a considerable distance away from large city centres or traditional mining areas where the required skills will be able to be sourced.

Underground operations manage 2- or 3-shift per day operation for 5-days, followed by a single shift on the sixth day and no production on the seventh day. Different shift systems can be considered to provide optimal efficiency and equipment utilisation. An additional 24 hour Full Calendar Operation (FULCO) system may be utilised that will provide for a 7-day, 24 hour operation employing four teams of personnel on a rotational basis.

The mine, once operational will be required to implement an Employment Equity Plan in accordance with the Mining Charter where at least 40% of management personal will be Historically Disadvantaged South Africans on the appointment of senior staff and 10% of the workforce across the board specifically those involved in core mining activities will comprise of woman within 12 months from the commencement of commercial production.

1.2.5.2 Transport and Housing

It has been noted that no accommodation will be provided for employee's onsite. Employees will be sourced from surrounding local communities. Transport will need to be made available to covey employees from nearby communities to the mine, and visa-versa. Opportunities may exist for the establishment of a local transport company which could be contracted to the mine. It is important to note that housing allowances, as well as traveling allowances have been included in the employees' salaries.

1.2.6 Waste Management

According to the NEMWA, waste is defined as "any substance, whether or not that substance can be reduced, reused, recycled and recovered":

a. That is surplus, unwanted, rejected, discarded, abandoned or disposed of;

b. Which the generator has no further use for the purposes of production;

c. That must be treated or disposed of; or

d. That is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but—

   i. A by-product is not considered waste; and

   ii. Any portion of waste, once re-used, recycled and recovered, ceases to be waste.

1.2.6.1 General Waste Management

General waste, as defined by the NEMWA, means waste that does not pose an immediate hazard or threat to health or to the environment, and includes:

a. domestic waste;

b. building and demolition waste;

c. business waste; and

d. inert waste.

General waste that is to be generated by the mining activities will be temporarily stored onsite according to the requirements of the NEMWA, draft regulations (e.g. draft regulation for the storage and handling of waste), collected by an independent waste service provider and disposed of at a licensed general waste site. Where applicable, the hierarchy of waste management will be implemented in order to avoid, reuse, recycle and reduce the volume of general waste generated by the proposed mining activities.

1.2.6.2 Hazardous Waste Management

The definition of hazardous waste in accordance with NEMWA refers to any waste that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment (NEMWA).

Examples of hazardous waste include certain solvents, grease, used oil, fluorescent light bulbs, spilled chemicals and fuel, etc. All hazardous waste will need to be collected and temporarily stored in suitable receptacles located on an impermeable, bunded surface and covered. Hazardous waste will be collected by an independent waste service provider and disposed of at a permitted hazardous landfill site.

1.2.6.3 Mine Residue Waste Management

According to the MPRDA, mining residue stockpiles can be defined as any debris, tailings, slimes, screening, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential reuse, or which is disposed of, by the holder of the mining right, mining permit or production right.

Therefore, residues generated from the benificiation of coal and waste rock produced from mining activities are excluded from the ambit of the NEMWA; however, best practise will be applied to the mine residues. It is anticipated that fines will be produced from benificiation activities that can be used as saleable coal. Furthermore, coal spillages from loading of product coal onto trucks may also be produced. The beneficiation/ wash plant and coal stockpilling/ loading areas will be construcuted on hardstanding for ease of cleanup and collecting of coal that can be placed on the vehicles transporting product coal.

Waste rock generated from inititial adit development activities and waste rock generated from the mining activities (including benificiation activities) will be transported by convyer to a discard dump. Similarly, discard material generated during beneficiation activities will be transported and stockpiled on the discard dump.

1.2.6.4 Discard Dump

A discard dump will need to be constructed for the discard from wash plant. Factors of safety will remain in line with accepted South African legislation and best practice. Furthermore, Piezometers may be used during construction to monitor pressure levels, for stability evaluation. The following components will need to be included into the design of the discard dump:

- Clean water diversion trench/bund wall;
- Dirty water/leachate interception drains and filters; and
- Return water dam.

The design of the discard dump will be contracted to an independent engineering firm and will be discussed in details during the ESIA phase of the project.

1.2.6.5 Sewage Treatment Plan

A sufficient number of chemical toilets will be provided onsite during the construction phase of the mine and will be maintained on a weekly basis. Once the change house and ablution facilities are completed, septic tanks may be installed for the treatment of sewage. The septic tanks will be emptied when necessary by a reputable contractor. The waste water from the sewage plant will be treated accordingly and may be monitored before being discharged or reused as process water. Additional information pertaining to the sewage treatment plant will be assessed during the ESIA phase and included in the draft ESIA report.

1.2.7 Water Management

Water management is considered important as the proposed project is located in a sensitive catchment area. The following aspects of water management will need to be assessed for the project.

1.2.7.1 Water Use and Resources

Water Requirements

According to Mindset, the Continuous Miner will utilise a fair amount of water in the underground operations. Water will be required to allay dust at the cutting drum as well as to cool the picks of the machine. Water will also be applied at the transfer points to minimise dust generation and will be applied to the travelling roads (note: dust-aside will also be applied to minimise dust on all roads utilised by mine vehicles).

The wash plant will require the most water for the proposed mining operations. It has been conveyed that initial water requirements for a 320 ton per hour production is not expected to exceed 40m^3 of water. Following the initial operation of the wash plant, only top-up water will be required to maintain an adequate water level. Top-up water has been calculated at 150 litres per ton of coal washed, with the runoff water being reused in a closed loop system.

Water Source

Alternative sources of water may be investigated as part of the ESIA process for the proposed project. Alternatives such as groundwater (boreholes) municipal water (water pipeline will need to be constructed to the site), making use of existing dams (Heyshope Dam) in the area and/ or reuse of treated waste water (from sewage treatment plant, coal wash plant, etc.). There is also an option of constructing a new containment dam if required. Negotiations and further investigations still need to take place. A meeting between the DEA and DWA is to be arranged to discuss the potential use of water in the near future.

With regards to water use; new technologies, as well as best practise guidelines will be used to ensure water use is minimal and where possible water is reused and recycled. Current predicted water volumes required for the mine are to be identified and calculated in the ESIA phase of the project.

1.2.7.2 Stormwater Management

Stormwater will be managed as per GNR.704 of the NWA: Regulations on use of water for mining and related activities aimed at the protection of water resources (GG 20119 of 4 June 1999). Clean stormwater will be directed away from the mining operations by the construction of berms and dirty water will be captured within the dirty area and directed towards the pollution control dam for settling and evaporation. The pollution control dam will be sized such that it will have the capacity to contain run-off from a 1:50 year storm event. The DWA Best Practice Guidelines (BPG) for stormwater management will be assessed for implementation. Final stormwater management is to be assessed in detail and finalised during the ESIA phase of the project.

1.2.7.3 Clean and Dirty Water Management

A plan and engineering designs may be developed to ensure that cut-off trenches/ open drains and berms separate the 1:100 “clean” water runoff, from the 1:50 “dirty” water, to divert clean runoff around the PCD’s and discard dump. The PCD’s will be sized to collect the average dirty runoff from the discard dump, mining area and adit entrance, as well as the 1:100 24 hour storm event. Final designs are to be developed and will be assessed during the ESIA phase of the project.

1.2.7.4 Water Balance and Decant Management

A water balance will be calculated to determine the water utilisation at the site, and how the proposed discard area will interact with the water resource, as part of the preliminary design phase. A decant management plan will be developed following further groundwater monitoring studies and modelling.

Yzermyn Underground Coal Mine Project Schedule

DEA Reference Number: 14/12/16/3/3/3/85

Task	Anticipated Date
Submission of final scoping report to Department of Mineral Resources	17 May 2013
Submission of final scoping report to Department of Environmental Affairs	20 June 2013
Compilation of draft environmental and social impact assessment (ESIA) report including the draft environmental and social management programme (ESMP) report	June – end August 2013
Commencement of specialist studies	Ongoing, to be finalised first week of August 2013
Public review of draft ESIA and ESMP reports (60 days according to NEMA)	30 August 2013
Stakeholder engagement process (ESIA feedback)	September 2013
Obtain comments from public review	20 November 2013
Submission of final ESIA and ESMP report to DEA	10 December 2013

environmental affairs
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PER FACSIMILE / MAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT AND REJECTION OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING/EIA PROCESS) FOR THE PROPOSED YZEMYN UNDERGROUND COAL MINE MPUMALANGA PROVINCE

The Department confirms having received the final Scoping Report, integrated application form and locality map submitted by you on 20 June 2013. You have submitted these documents to comply with the Environmental Impact Assessment Regulations, 2010 and Government Notice 718 of 2009. The application is rejected.

However, you are kindly requested to submit the following documents:

- Original signed application having the correct details of the local authority in whose jurisdiction the proposed activity will fall;
- an original signed details of EAP and Declaration of interest; and
- a project schedule, indicating the different phases and expected timelines of the project, (as per point 2.2 of the application form template).

Please note that the final Scoping Report received will be acknowledged and reviewed once the application has been accepted.

In terms of regulation 67 of the EIA Regulations, 2010 this application will lapse if the applicant (or the EAP on behalf of the applicant) fails to comply with a requirement in terms of the Regulations for a period of six months after having submitted the application, unless the reasons for failure have been communicated to and accepted by this Department.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

Mr Mark Gordon
Chief Director: Integrated Environmental authorisations
Department of Environmental Affairs
Letter signed by: Ms Mmatlala Rabothata
Designation: Environmental Officer: Integrated Environmental Authorisations
Date: 08/07/13

Cc: Morgam Munsamy Atha – Africa Venture (Pty) Ltd Fax: 011 784 7467

environmental affairs

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PER FACSIMILE / MAIL

Dear Sir/Madam

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF AN AMENDED APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING/EIA PROCESS) FOR THE PROPOSED YZEMYN UNDERGROUND COAL MINE WITHIN PIXLEY KA SEME LOCAL MUNICIPALITY IN MPUMALANGA PROVINCE

The Department confirms having received the final Scoping Report, integrated application form and locality map submitted by you on 20 June 2013 and integrated application form, original signed details of EAP and Declaration of interest and the project schedule on 10 July 2013 for environmental authorisation for the abovementioned project. You have submitted these documents to comply with the Environmental Impact Assessment Regulations, 2010 and Government Notice 718 of 2009. The Application is accepted.

In addition, please consider the following during compilation of reports for this application for environmental authorisation:

- All applicable Departmental Guidelines must be considered throughout the application process. These can be downloaded from the Department's website: www.environment.gov.za, Environmental Impact Management button, listed under "EIA Administration": Integrated Environmental Management Information Series link. These include, but are not limited to, the following topics: Scoping, Environmental Impact Reporting, Stakeholder Engagement, Specialist Studies, Impact Significance, Cumulative Effects Assessments, Alternatives in EIA and Environmental Management Plans.
- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).

- Should water, solid waste removal, effluent discharge, stormwater management and electricity services be provided by the municipality, you are requested to provide this office with written proof that the municipality has sufficient capacity to provide the necessary services to the proposed development. Confirmation of the availability of services from the service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the EIR. This EMPr must not provide recommendations but must indicate actual remediation activities which will be binding on the applicant. Without this EMPr the documents will be regarded as not meeting the requirements and will be returned to the applicant for correction.
- The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 24O(2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the National Water Act, 1998 (Act 36 of 1998).
- Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Basic Assessment Report/Environmental Impact Assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

You are required to submit the final site layout plan together with the Final EIR to the Department. All available biodiversity information must be used in the finalisation of the layout plan.

The Environmental Management Programme (EMPr) submitted as part of the application for environmental authorisation must include the following:

- All recommendations and mitigation measures to be recorded in the Final EIR.
- A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- An open space management plan to be implemented during the construction and operation of the facility.
- A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to

reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.

- An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- A traffic management plan for the site access roads to ensure that no hazards would results from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

You are requested to submit two (2) electronic copies (the main report must be separated from the Appendices (each appendix saved separately) (CD/DVD) and two (2) hard copies of both the Draft and Final Report to the Department. The hard copies must be double-sided printed; double-punched and must be bound using a lever arch file (two or four holes).

The EAP must, in order to give effect to regulation 56 (2), before submitting the final EIR to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing within 21 days.

In terms of regulation 67 of the EIA Regulations, 2010 this application will lapse if the applicant (or the EAP on behalf of the applicant) fails to comply with a requirement in terms of the Regulations for a period of six months after having submitted the application, unless the reasons for failure have been communicated to and accepted by this Department.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

Mr Ishaam Abader
Deputy Director-General: LACE
Department of Environmental Affairs:
Letter signed by: Ms Mmatlala Rabothata
Designation: Environmental Officer: Integrated Environmental Authorisations
Date: 24/07/13

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PER FACSIMILE / MAIL

Dear Mr Holme

ACKNOWLEDGEMENT OF RECEIPT OF DRAFT AND FINAL SCOPING REPORT FOR THE PROPOSED YZERMYN UNDERGROUND COAL MINE

The Department confirms having received the Draft Scoping Report for the above-mentioned project on 20 June 2013 and the final Scoping Report on 27 July 2013.

You are hereby reminded that the activity may not commence prior to an environmental authorisation being granted by the Department.

Yours sincerely

Mr Ishaam Abader
Deputy Director-General: Legal Authorisation Compliance and Enforcement
Department of Environmental Affairs
Letter signed by: Mr Herman Alberts
Designation: Environmental Officer: Integrated Environmental Authorisations
Date: 28/08/2013

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NEAS Reference: DEA/EIA/0001965/2013
DEA Reference: 14/12/16/3/3/3/85
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Mr Brent Holme
WSP Environmental (Pty) Ltd
PO Box 5384
RIVONIA
2128

Fax No: 086 532 8685

PER FACSIMILE / MAIL

Dear Mr Brent

APPLICATION FOR ENVIRONMENTAL AUTHORISATION: PROPOSED YZERMYN UNDERGROUND COAL MINE NEAR WAKKERSTROOM, MPUMALANGA PROVINCE

The Final Scoping Report (FSR) and Plan of Study for Environmental Impact Assessment dated June 2013 and received by the Department on 27 August 2013 refers.

The Department has evaluated the submitted FSR and the Plan of Study for Environmental Impact Assessment dated June 2013 and is satisfied that the documents comply with the minimum requirements of the Environmental Impact Assessment (EIA) Regulations, 2010. The FSR is hereby accepted by the Department in terms of regulation 30(1)(a) of the EIA Regulations, 2010.

You may proceed with the environmental impact assessment process in accordance with the tasks contemplated in the Plan of Study for Environmental Impact Assessment as required in terms of the EIA Regulations, 2010.

Please ensure that comments from all relevant stakeholders are submitted to the Department with the Final Environmental Impact Report (EIR). This includes but is not limited to the Mpumalanga Department of Economic Development, Environment, Tourism and Conservation (MDEDECT), the Department of Water Affairs, the Department of Agriculture, Forestry and Fisheries, the South African Heritage Resources Agency, the Mpumalanga Tourism and Parks Agency, the Mpumalanga Wetland Forum / SANBI coordinater and the Pixley ka Seme Local Municipality. Proof of correspondence with the various stakeholders must be included in the Final EIR. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments. An authorities contact list (including email addresses and fax numbers) must be included in the EIR.

In addition, the following amendments and additional information are required for the EIR:

a) Details of the future plans / rehabilitation of the site after decommissioning.
b) The FSR indicates that mining of a remainder area of the prospecting right is required to ensure that the project will be viable following the mining of the target area, and that prospecting of this area will be undertaken during the operational phase should the project be authorised. Please include a discussion / assessment of the implications for the project should mining of the remainder area be unfeasible.
c) Geological / Geotechnical opinion regarding the feasibility of the mining operation and the likelihood of subsidence (planned or unintentional) occurring. The FSR indicates that with the bord and pillar mining method, coal reserves remaining in the pillars may be won at closure of the mine with a retreating system which allows the roof to collapse. Please indicate how this would impact on the surface environment (biophysical, social and historical/cultural elements / structures found on the surface).
d) The total footprint of the proposed development should be indicated. Exact locations and footprints of the associated infrastructure (including power line routes) should be mapped at an appropriate scale.
e) Possible impacts on nearby conservation areas, including the proposed Mabola Protected Environment, and sensitive environments such as the Wakkerstroom Wet Grassland and wetlands on site should be indicated.
f) Information on the implications of the motivation to declare the area in terms of Section 49 of the Minerals and Petroleum Resources Development Act, 2002.
g) The impacts of the proposed facility on tourism must be assessed.
h) Possible impacts and effects of the development on the surrounding agricultural areas.
i) The FSR states that HIV/AIDS is a health concern in the community and that infection rates are high. Large capital projects have generally shown to result in an increase in HIV/AIDS prevalence in local communities. The EIR must therefore include a comprehensive component on potential HIV/AIDS related impacts. Please utilise the United Nations Development Programme guideline on integrating HIV and Gender related issues into EIA, in this regard (http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/guidelines-for-integrating-hiv-and-gender-related-issues-into-en/)
j) The EIR should include information on how the local community will benefit.
k) Information on services required on the site, e.g. refuse removal, water, electricity and rail transport of coal. Has an agreement been obtained and confirmation of capacity been determined?
l) Information on the waste management infrastructure requirements, capacities and waste amounts to be managed, and potential impacts thereof.
m) Information on health and safety for workers (in terms of the work environment).
n) Should generators be used, please include an assessment of the potential impacts resulting from the use of the generators.
o) A construction and operational phase EMPr to include mitigation and monitoring measures.
p) Should blasting be required, appropriate assessment and mitigation measures should be provided (noise and vibrations).
q) Should a Water Use License be required, proof of application for a license needs to be submitted.

It is clear from the FSR that certain activities that have been applied for are no longer applicable. Therefore, please submit an amended application form to include for only those activities (waste and EIA) which are applicable to the project. Please indicate only the relevant sub-activities in the application form (not all) e.g. Activity 10(*i*) of GN. R. 544. The FSR indicates that Activity 22(i) & (ii) will be triggered for the upgrading of the unpaved road. Please consider whether this upgrading may

rather trigger Activity 47 of GN. R. 544 for the widening or lengthening of an existing road. Similarly, Activity 18 of Gn R. 545 may not be applicable – this activity only applies to roads that do not yet exist.
The applicant is hereby reminded to comply with the requirements of regulation 67 with regard to the time period allowed for complying with the requirements of the Regulations, and regulations 56 and 57 with regard to the allowance of a comment period for interested and affected parties on all reports submitted to the competent authority for decision-making. The reports referred to are listed in regulation 56(3a-3h).

Please ensure that the Final EIR includes at least one A3 regional map of the area and the locality maps included in the final EIR illustrate the facility and location of fuel storage areas. The maps must be of acceptable quality and as a minimum, have the following attributes:

- Maps are relatable to one another;
- Cardinal points;
- Co-ordinates;
- Legible legends;
- Indicate alternatives;
- Latest land cover;
- Vegetation types of the study area; and
- A3 size locality map.

Further, it must be reiterated that, should an application for Environmental Authorisation be subject to the provisions of Chapter II, Section 38 of the National Heritage Resources Act, Act 25 of 1999, then this Department will not be able to make nor issue a decision in terms of your application for Environmental Authorisation pending a letter from the pertinent heritage authority categorically stating that the application fulfils the requirements of the relevant heritage resources authority as described in Chapter II, Section 38(8) of the National Heritage Resources Act, Act 25 of 1999.

You are requested to submit two (2) copies of the Environmental Impact Report (EIR) to the Department and at least one electronic copy (CD/DVD) of the complete final report with the hard copy documents.

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours faithfully

Mr Ishaam Abader
Deputy Director-General: Legal, Authorisations, Compliance and Enforcement
Department of Environmental Affairs
Letter signed by: Ms Milicent Solomons
Designation: Director: Integrated Environmental Authorisations
Date: 09/10/2013.

CC:

Mr Morgam Munsamy	Atha Africa Ventures (Pty) Ltd	Fax: 011 784 7467
Ms Nellisiwe Mlangeni	MDEDECT	Email: mlangeninm@mpg.gov.za