



FIGURE 4.4 POST MINING TOPOGRAPHY SHOWING SURFACE RUN-OFF



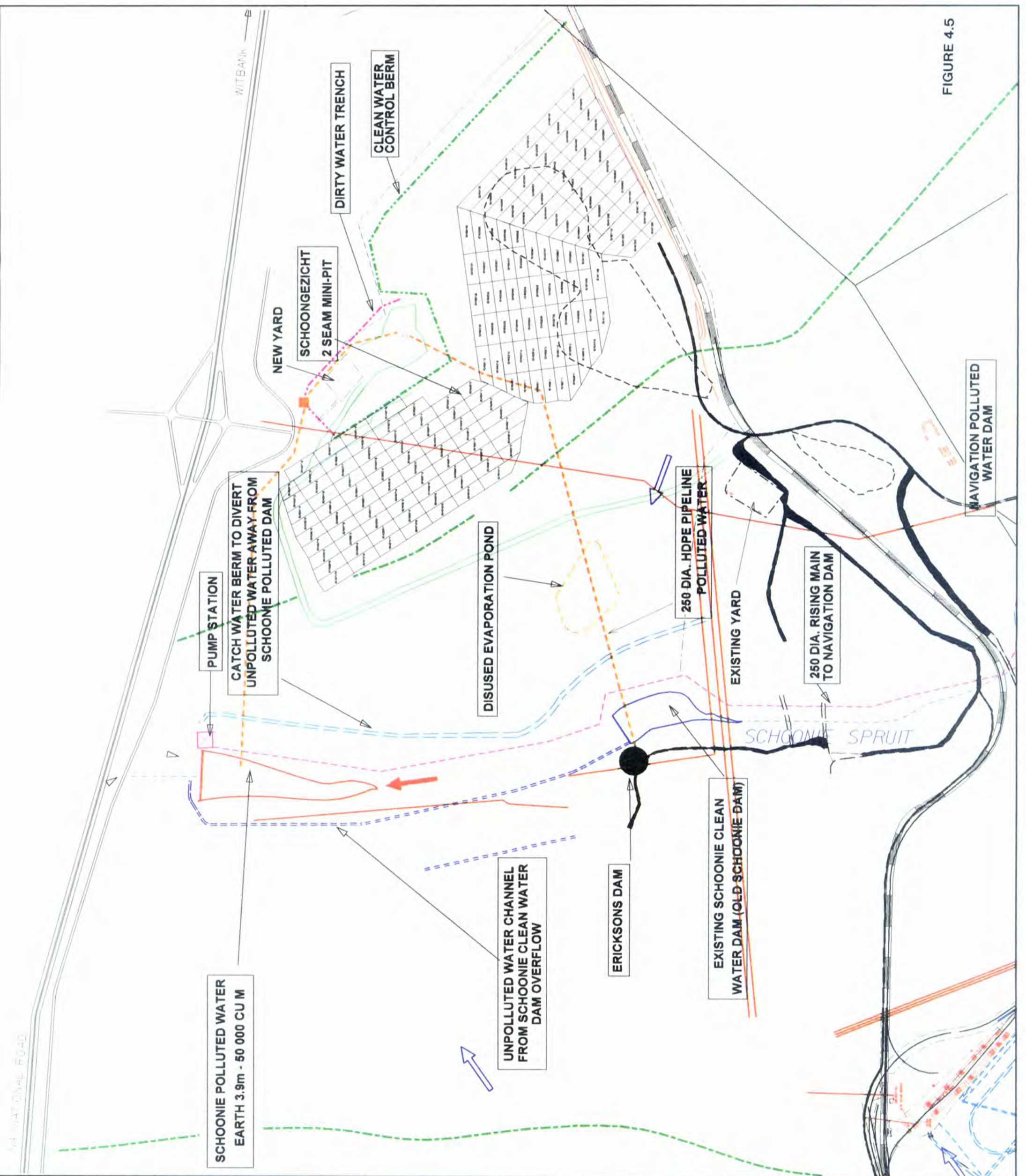
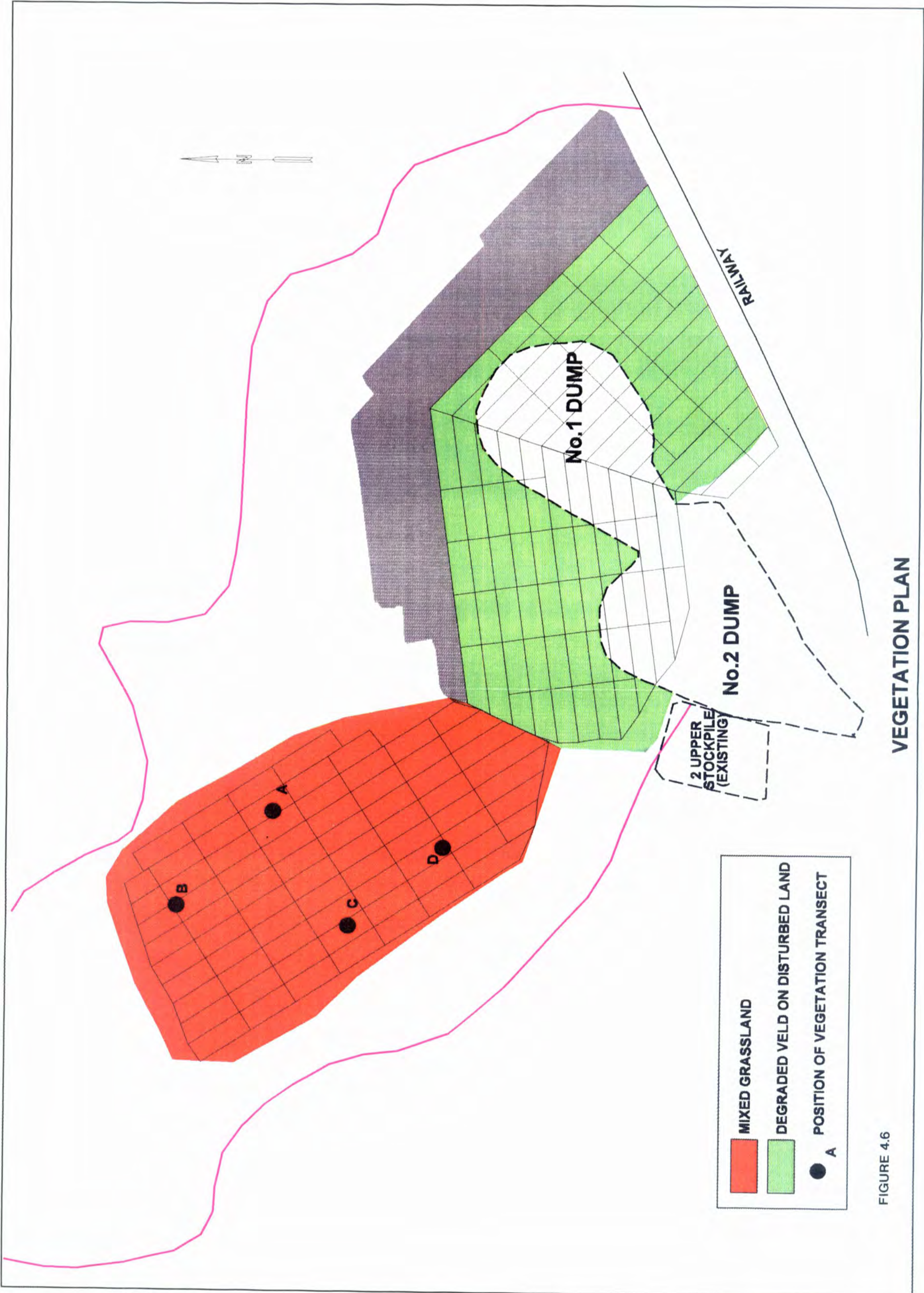


FIGURE 4.5





VEGETATION PLAN

FIGURE 4.6

**ADDENDUM NO. 1**

Republiek  
van  
Suid-Afrika



Republic  
of  
South Africa

DEPARTEMENT VAN MINERALE EN ENERGIË  
DEPARTMENT OF MINERALS AND ENERGY  
DEPARTEMENTE YA TŠA DIMINERALE LE ENEJI  
IDIPHATIMENTI YEZAMANINERALI NEZE-ENEJI  
STREEKDIREKTEUR  
REGIONAL DIRECTOR  
Privaatsak • Private Bag

X7279

WITBANK

1035



0135-903282/3/4/5  
0135-6561448/9

Faks • Fax

903288

Navrae  
Enquiries

D V.D. MERWE

Uitbreiding  
Extension

Datum  
Date

1997-05-12

The Manager  
Landau Colliery  
P O Box 78  
CLEWER  
1036

OT 6/2/141

In u antwoord meld asseblief verwysingno.  
In your reply please quote reference No.

Sir

**TEMPORARY MINING AUTHORISATION IN TERMS OF SECTION 39(4)  
OF THE MINERALS ACT, 1991 TO COMMENCE OPENCAST MINING  
OPERATIONS AT SCHOONGEZICHT NO 2 SEAM MINI PIT: DISTRICT  
WITBANK**

1. Attached please find a Temporary Authorisation issued in terms of Section 39(4) of the Minerals Act, 1991 to commence opencast mining operations.
2. This Temporary Authorisation is besides the conditions contained therein, further subject to the conditions that all mining and environmental management activities relating to the mine be carried out in accordance with the Environmental Management Programme which has been submitted for Landau Colliery.

Yours faithfully

**DIRECTOR: MINERAL DEVELOPMENT  
MPUMALANGA REGION**

TIKSTERS/P&O-PRO/OT622141/ab

**TEMPORARY MINING AUTHORISATION IN TERMS OF SECTION 39(4)  
OF THE MINERALS ACT, 1991 TO COMMENCE OPENCAST MINING  
OPERATION AT SCHOONGEZICHT NO 2 SEAM MINI PIT: DISTRICT  
WITBANK**

1. **WHEREAS** Section 39(4) of the Minerals Act, 1991 provides that the Director: Mineral Development may pending the approval of the Environmental Management Programme grant temporary authorisation that the prospecting operation concerned may be commenced with, subject to such conditions as may be determined by him;
  
3. **NOW THEREFORE** I, Simon Sikhosana, Director: Mineral Development, Mpumalanga Region, pending approval of the final Environmental Management Programme, hereby authorize the Company to commence with opencast mining operations on the said land as from the date of signature hereof for a period of one year provided that:
  - 3.1 All environmental legislation and such other conditions as may be imposed by me or any other officer of this office, duly authorized thereto, be adhered to.
  - 3.2 No on-site beneficiation or processing of coal will be done and the coal is to be transported away as described in the EMP.
  - 3.3 In the event that the necessary mining authorisation is delayed or not granted no responsibility is accepted by any state department for expenses incurred by your company in the mining or any other mining costs.
  - 3.4 The mine will undertake all studies and other work to which it commits itself in the EMP, the final draft of which must be submitted no later than 1997-07-31.
  - 3.5 Mining shall only occur as specified in the EMP and any changes in the method of operation, mining, processing or environmental management from those specified in the EMP be cleared with our Department prior to them being implemented.
  
4. This authorisation is further subject to compliance to the following letters of permission:
  - 4.1 Department of Water Affairs and Forestry, reference 16/2/7/B100/E12 dated 1997-04-22.
  - 4.2 Spoornet, reference S.PTA/W 1076/4/1 dated 1997-04-25.

- 4.3 Mpumalanga Government, Roads Branch, reference 10/4/2/16 dated 1997-04-24.
- 4.4 Eskom, reference S0/74/97 dated 1997-04-21.
- 4.5 Blasting permission from Department of Minerals and Energy, reference. IM WIT 8/15 dated 5 May 1987.

Signed at Witbank this 12 May day of 1997  
1997.

*J. Shiresome*

**DIRECTOR: MINERAL DEVELOPMENT  
MPUMALANGA REGION**

TIKSTERS/P&O-PRO/OT622141/ab



**REGISTERED POST**

The Mine Manager  
Amcoal  
Landau Colliery  
P.O. Box 78  
CLEWER  
1036

J DU PLESSIS

1995 -02- 27

OT 5/3/2/96

Sir

**MINING LICENCE : VARIOUS FARMS IN THE WITBANK DISTRICT  
YOUR REFERENCE IS AJvdM/eb**

Attached please find Mining Licence No 10/95 issued in terms of Section 9(1) read with 9(3)(e) of the Minerals Act, 1991 (Act 50 of 1991).

Your attention is drawn to Section 39(1) of the Minerals Act, 1991, which provides that the holder of a Mining Authorization shall not commence with mining operations before obtaining approval of the Regional Director of his Environmental Management Programme. Whereas your mine represents an existing venture, this Directorate hereby confirms that it has no objection to raise against you continuing with your mining operations pending the approval of your Environmental Management Programme.

Kindly acknowledge receipt of the said licence.

Yours faithfully



**REGIONAL DIRECTOR  
EASTERN TRANSVAAL REGION**

MIN-LIC/ab



Republic of South Africa



Republiek van Suid-Afrika

DEPARTMENT OF MINERAL AND ENERGY AFFAIRS

MINING LICENCE

[Minerals Act, 1991: Section 9 (1) read with 9 (3) (e)]

DEPT. VAN MINERAAL- EN ENERGIESAKE
P.SAKP. BAG X7279
1995 -02- 27
WITBANK 1035
DEPT. OF MINERAL AND ENERGY AFFAIRS

Office date stamp

Licence No. 10/95

Office reference OT 5/3/2/96

Authorization is hereby granted under and subject to the provisions of the Minerals Act, 1991, to (full name) SOUTH AFRICAN COAL ESTATES

(LANDAU REPLACEMENT)

identity or registration number 0 1 / 0 6 7 3 0 / 0 6

(hereinafter referred to as "the holder")

of (address) P.O. BOX 78  
CLEWER  
1036

to mine for (name of mineral) COAL

on (full name of farm and subdivision) SEE ATTACHED ANNEXURE "A"

No. Magisterial District WITBANK Region EASTERN TRANSVAAL

as indicated on the attached sketch plan No. XXXXXXXXXXXXXXXXXXXXXXXX

signed by the Regional Director on XXXXXXXXXXXXXXXXXXXXXXXX

Full name of the holder of the right to the said mineral AMCOAL COLLIERY AND INDUSTRIAL

OPERATIONS LIMITED

Unless this licence is suspended, cancelled or abandoned or lapses it shall be valid for a period (more than two years) which shall extend from the date of issuing until XXXXXXXXXXXXXXXX

From the date of issue of this licence the mineral the mining of which is hereby authorized can no longer be mined economically by the holder of the land concerned. (If a specific date is inserted, delete the words that follow the date.)

OT 5/3/2/96

SOUTH AFRICAN COAL ESTATES  
(LANDAU REPLACEMENT)

FARM	PORTIONS AND SUBDIVISIONS	AREA
GROOTVALLEI 258 J.S	1. PORTION OF PORTION (S.G. A1724/55)	113.9859
	2. PORTION 9	113.9859
KROMDRAAI 279 J.S.	1. REMAINING EXTENT OF PORTION 1 (NIEUWEN HOORN)	802.2351
	2. REMAINING EXTENT OF PORTION 2 (REMAINDER OF PORTION 4)	166.6183
	3. REMAINING EXTENT OF PORTION 3 (OLD R/E OF PTN B)	337.4021
	4. REMAINING EXTENT OF PORTION 4 (OF PORTION 3) (OLD PTN OF PTN B)	368.6948
	5. PORTION OF PORTION 5 (OF PORTION 3)	144.3100
	6. PORTION 10 (OF 2) (OLD PTN 6 OF PTN A)	191.3863
	7. PORTION 11 (OF 2) (OLD PTN 5 OF PTN A)	166.6183
	8. REMAINING EXTENT OF PORTION 13 (OF PORTION 2)	78.0831
	9. A PORTION OF REMAINING EXTENT OF PORTION 16 (OF 9)	58.8009
	10. PORTION 22 (OF 16)	3.4259
	11. PORTION 25 (OF 9) (OLD PTN 3 OF PTN A)	52.3688


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REGIONAL DIRECTOR  
EASTERN TRANSSVAAL REGION

1995 -02- 27




KROMDRAAI 279 JS	12. PORTION 32 (OF 4)	33.1386
	13. PORTION 33 (OF 3)	25.1056
	14. REMAINING EXTENT OF PORTION 34	174.9901
	15. PORTION 35 (OF 34)	22.5767
	16. PORTION 36 (OF 3)	22.1823
	17. PORTION 39	45.9517
NOOITGEDACHT 300 J.S	1. PORTION 1	399.3894
	2. REMAINING EXTENT OF PORTION 4	1328.062
	3. PORTION 6 (OF 4) (OLD LOT A OF PTN D)	189.7890
	4. PORTION 9 (OF 4)	189.7875
	5. PORTION 16 (A PTN OF PTN 5)	8.5653
	6. PORTION 17 (A PTN OF PTN 5)	5.8130
	7. PORTION 18 (OF 5)	3.2049
	8. PORTION 19 (A PTN OF PTN 4)	2.0771
	9. PORTION 22	1.8973
	10. REMAINING EXTENT OF PORTION 25	23.8149
KLEINWATER 301 J.S	PORTION OF PORTION 2 (S.G.A. 1336/29)	755.8766
CORONATION 280 J.S.	1. REMAINING EXTENT	181.2553
	2. PORTION	3.1251
HARTEBEESTSPRUIT 281 JS	1. REMAINING EXTENT OF PORTION 1 (OLD REMAINING EXTENT OF PORTION A)	115.8859
	2. REMAINING EXTENT OF PORTION 5 OF PORTION 1 (OLD REMAINING EXTENT OF PORTION OF PORTION A)	144.0291

  
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 EASTERN TRANSCVAAL REGION

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1995 -02- 27

HARTEBEEESTSPRUIT 281 JS	3. REMAINING EXTENT OF PORTION 6 (OLD GLAN-Y-L LYN)	465.0669	
	4. REMAINING EXTENT OF PORTION 8 (A PORTION OF PORTION OF 5) (OLD REMAINDER OF PTN 1 OF A)	112.0271	
	5. PORTION 9 (OF 2) (OLD PTN 1 OF PTN B)	90.7924	
	6. PORTION 11 (OF 6) (OLD PTN 1 OF PTN OF GLAN-Y-LLYN)	89.2378	
	7. PORTION 12 (OF 6)	2.4412	
	8. PORTION 20	2.7148	
	9. PORTION 21	56.1316	
	10. PORTION 25	21.4133	
	SCHOONGEZICHT 308 J.	1. REMAINING EXTENT	944.7272
		2. PORTION 2	264.6542
3. PORTION 7		0.2683	
4. PORTION 9		0.1280	
5. PORTION 10		57.5951	
6. REMAINING EXTENT PORTION 15		58.8778	
7. PORTION 16		155.6288	
8. REMAINING EXTENT PORTION 17		135.7346	
9. REMAINING EXTENT PORTION 18		117.5899	
10. PORTION 19		118.7599	
11. PORTION 20		263.2092	
12. MINERAL AREA 1 ON PORTION 24 (S.G. A 2237/64 R.M)		255.5719	

  
 REGIONAL DIRECTOR  
 EASTERN TRANSVAAL REGION

1995 -02- 27

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SCHOONGEZICHT 308 JS	13. REMAINING EXTENT PORTION 40	62.8721 *
	14. PORTION 64	1.7447
ELANDSFONTEIN 309 J.S	1. REMAINING EXTENT PORTION 2	1564.1173
	2. REMAINING EXTENT OF PORTION 22 (OF PORTION 1)	93.9951
	3. PORTION 35 (PORTION OF PORTION 34)	22.1110
BLAAUWKRANS 323 JS	1. M.A. 2 (S.G.A. 2241/87)	±822.951
	2. REMAINING EXTENT	±682.000
	3. REMAINING EXTENT	±856.500
	4. PORTION 5	17.5510
	5. PORTION 6	3.4312
	6. PORTION 8	8.5657
	7. PORTION 9	4.0331

  
 REGIONAL DIRECTOR  
 EASTERN TRANSVAAL REGION

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1995 -02- 27

**SUPPLEMENTARY REPORT NO. 1**



**LANDAU COLLIERY**

**SOIL INVENTORY AND LAND CAPABILITY ASSESSMENT  
OF THE PROPOSED SCHOONGEZICHT PIT**

**Report on an investigation carried out for Landau Colliery by the  
Surface Rehabilitation Section of Amcoal Research and Development**

**by**

**K K SMITH**

**and**

**P D TANNER**

**Report No : Gen 27/87 - Ld 1/87**

**March 1987**

## 1. OBJECTIVES

The objectives of this pre-mining natural resource investigation are:

1. To define the locality, quality and quantity of available soil that can be segregated and replaced on the regraded spoils as topsoil, and
2. To determine the present and potential agricultural capability and agro-ecological stability of the land which is to be disturbed by strip-mining.

These investigations are standard practice within the Coal Division of Anglo American Corporation in its efforts to ensure a good standard of rehabilitation. They are intended to enable the mine to comply with the requirements of the Mines and Works Act of 1956, specifically those of Regulation 5.12.1 regarding preparation of a rehabilitation programme for approval by the Inspector of Mines.

The results of the investigation have been presented as follows:

- (i) A map and description of the soil types;
- (ii) A map of the effective depths of material suitable for topsoiling and
- (iii) A map indicating the distribution and area of the four recognised capability classes, namely arable land, grazing land, wetland and wilderness.

## 2. PROCEDURE

The survey was carried out in March 1987. Observation pits were excavated to a maximum depth of 1.4m at the intersections of a 100m x 200m rectangular grid. The 200m interval axis was laid down at right angles to the general slope of the area. Information recorded at each pit (field texture, colour, structure, consistence, depth boundaries of useable soil material for topsoiling, etc.) enabled the identification of diagnostic horizons and hence the Form according to the Binomial System of Soil Classification. Representative samples from the various horizons were taken for subsequent particle size analysis in the laboratory. From this information, coupled with the understanding that soils in the area are generally dystrophic, the probable soil series were deduced.

## 3. THE SOILS AND THEIR DISTRIBUTION

### (a) HUTTON AND BAINSVLEI (RED) SOIL FORMS

The Hutton soil form profile is diagnosed by an orthic A horizon (darkened by organic matter) usually approximately 30cm thick, overlying and grading into a red apedal B horizon (implying a non-structured, friable red soil); and finally the weathering parent material and bed-rock.

Soils of the Bainsvlei form differ from the above in that, at some depth, the red apedal B horizon grades into a soft plinthite (a mottled or concretionary horizon).

The B1 horizons of these soil forms have an average clay content in the range of 5 - 15%. Previous surveys of adjacent areas have shown that dystrophic soil series predominate and consequently the soils have been provisionally classified as Middelburg and Wykeham series of the Hutton and Bainsvlei forms, respectively.

(b) CLOVELLY AND AVALON (YELLOW-BROWN) SOIL FORMS

The profiles of these two forms include an orthic A horizon overlying a yellow-brown apedal B horizon. The physical properties of the B horizon are similar to those found in the red apedal B horizons described above. The Avalon form has a third diagnostic soil horizon - a soft plinthic B - again analogous to that of the Bainsvlei form. The soil horizons overlie weathering parent material and bed rock.

The B1 horizons of these forms also have average clay contents in the range of 5 - 15%, with a medium grade of sand and consequently have provisionally been classified as Mossdale and Kanhym series of the Clovelly and Avalon forms, respectively.

In the north of the pit area the apedal non-plinthic horizons are deep and the soils fall predominantly into the Hutton and Clovelly forms. To the south plinthic horizons were encountered at shallower depths and accordingly Bainsvlei and Avalon forms predominated. The soil form map details the location and areas of the various soil forms.

4. SUITABILITY OF MATERIALS AS TOPSOIL

All orthic A horizons are suitable for use as topsoil. Physically the red or yellow-brown apedal B horizons of Hutton, Bainsvlei, Clovelly and Avalon forms are also suitable for topsoiling and should be recovered. The soft plithic materials have proved to be unsuitable and should therefore be excluded.

These criteria have been used in the compilation of the depth class map which shows the location of useable material.

5. PRE-MINING AGRICULTURAL POTENTIAL AND LAND CAPABILITY

The Chamber of Mines guidelines have been used to differentiate the area into two of the four defined land capability classes, namely arable land and grazing land. The major portion (119 ha, or 75%) of the area has been classified as arable land, while the remainder (40 ha, or 25%) has been classified as grazing land, due mainly to the shallowness of the topsoil.

6. PRE-MINING LAND USE AND BOTANICAL COMPOSITION



A study of aerial photographs shows that virtually the entire area was at some stage under crops. Cropping was abandoned many years ago and the area has reverted to a pioneer grassland. The present veld condition and species composition indicate that, in parts, the land had been overgrazed. There is also evidence of uncontrolled burning, while currently the land is underutilized.

The grass species composition of the area was assessed along three transects spaced roughly equidistant across the area, running from north to south. The toe-step method was utilized, species composition being determined at 10-pace intervals in each transect. The grass species that were observed have been listed below in decreasing order of abundance. The relative palatability of the observed species has been denoted as follows:

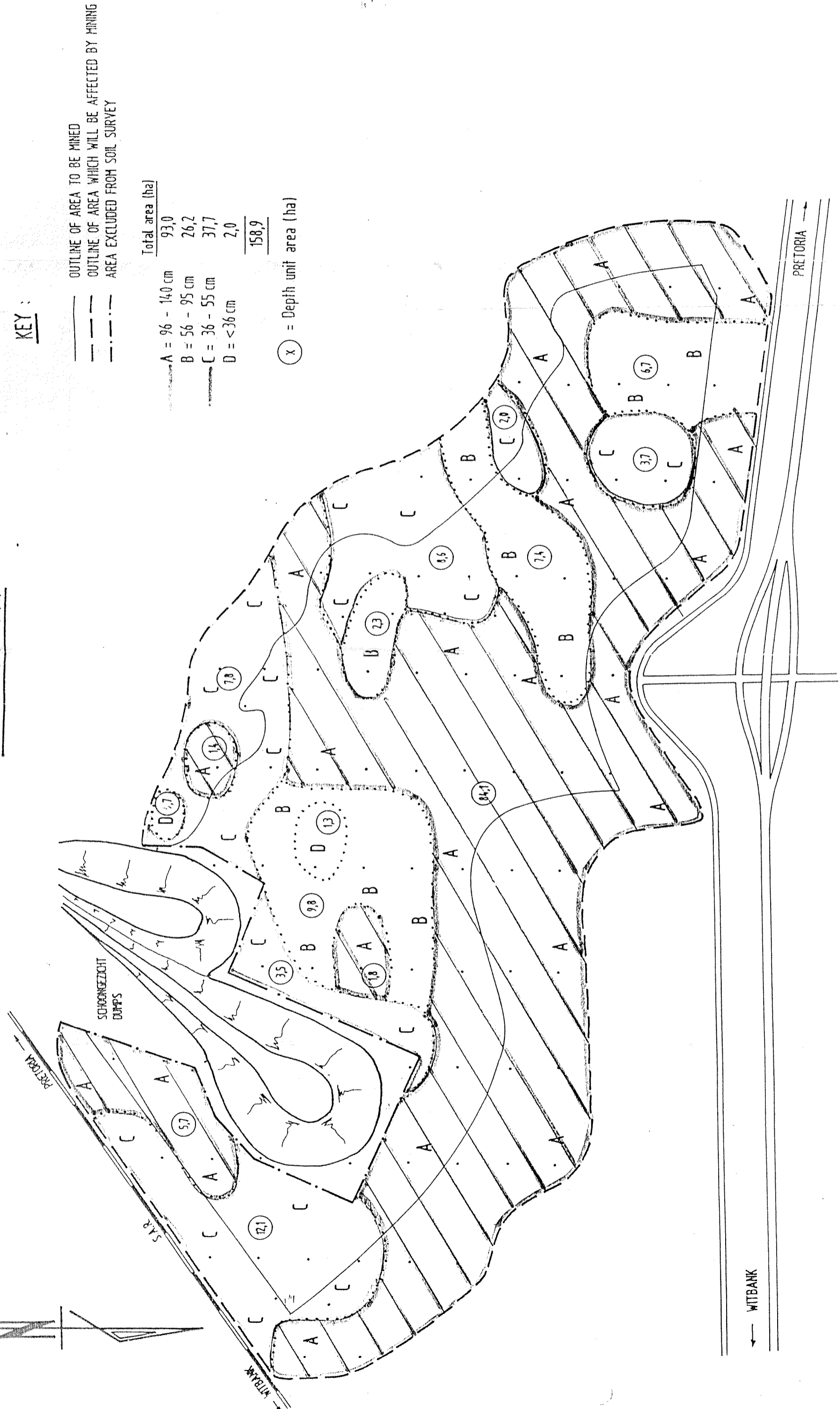
Class 1	=	palatable
Class 2	=	intermediate
Class 3	=	unpalatable

SPECIES	CLASS	COMMON NAME
<i>Eragrostis curvula</i>	2	"Oulandsgras"
<i>Cynodon dactylon</i>	1	"Kweekgras"
<i>Aristida junciformis</i>	3	Ngongoni bristlegrass
<i>Hyparrhenia hirta</i>	1	Common thatchgrass
<i>Paspalum distichum</i>	1	Buffalo quick paspalum
<i>Aristida congesta</i> subsp <i>congesta</i>	3	Tassel bristlegrass
<i>Pogonarthria squarrosa</i>	3	Herringbone grass
<i>Tristachya leucothrix</i>	2	Trident grass
<i>Eragrostis plana</i>	3	Fan lovegrass
<i>Themeda triandra</i>	1	"Rooigras"
<i>Heteropogon contortus</i>	2	Speargrass
<i>Manocybium ceresiiforme</i>	1	Wild oatgrass
<i>Rhynchelytrum repens</i>	2	Natal redtop
<i>Perotis patens</i>	3	Purple spike catstail
<i>Sporobolus africanus</i>	3	Ratstail dropseed
<i>Eragrostis racemosa</i>	2	Narrow-heart lovegrass

The present species composition and basal cover would be capable of supporting a moderate stocking rate of 1 LSU per 6 ha per annum.

# SCHOONGEZICHT SOIL SURVEY

## DEPTH CLASS MAP



SCALE 1 : 7500

# SCHOONGEZICHT SOIL SURVEY

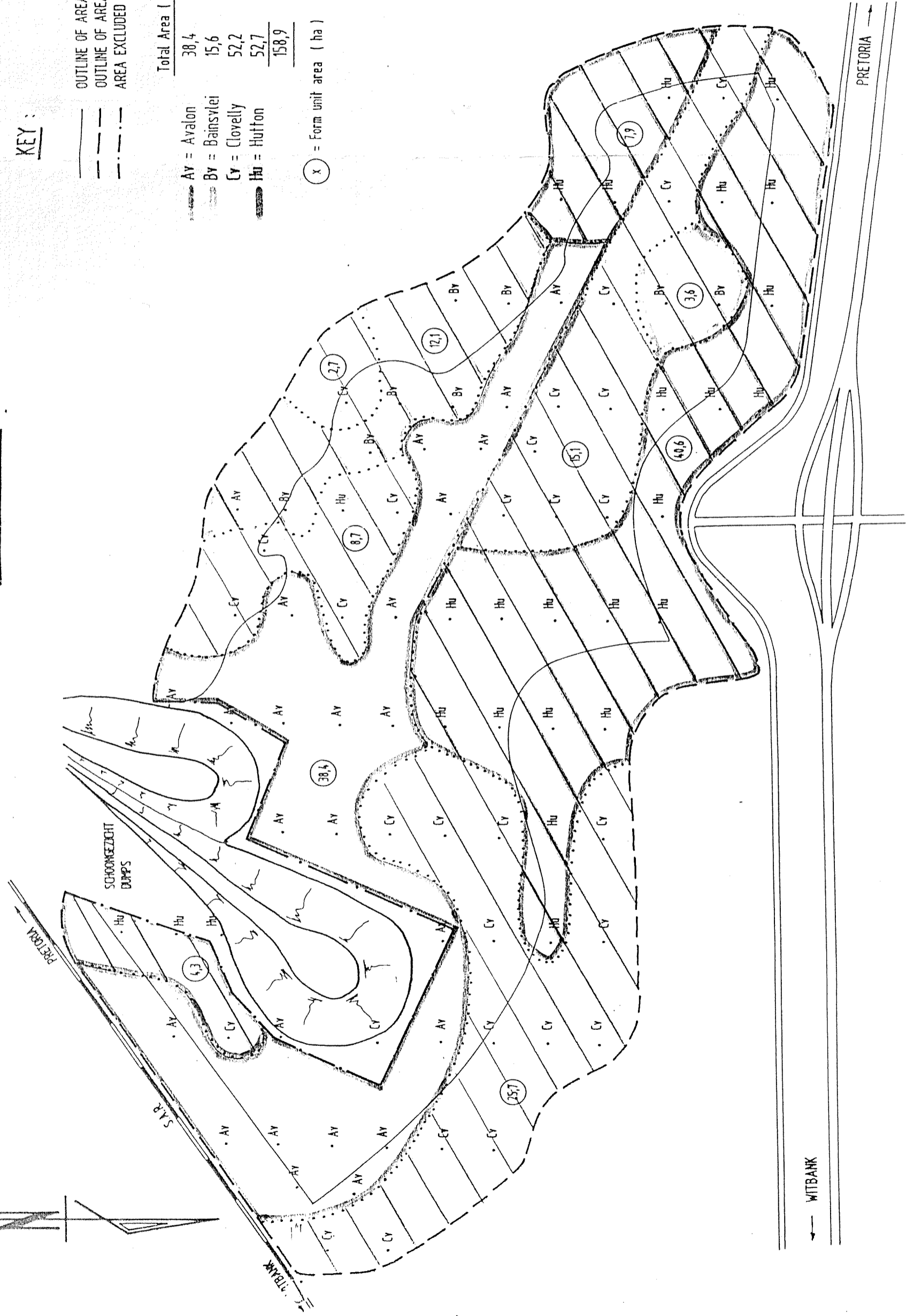
## SOIL FORM MAP

### KEY :

- OUTLINE OF AREA TO BE MINED
- - - OUTLINE OF AREA WHICH WILL BE AFFECTED BY MINING
- · · · · AREA EXCLUDED FROM SOIL SURVEY

Total Area ( ha )	
AV = Avalon	38,4
Bv = Bainsylei	15,6
Cy = Clovelly	52,2
Hu = Hutton	52,7
<b>Total</b>	<b>158,9</b>

( X ) = Form unit area ( ha )



SCALE 1 : 7500

# SCHOONGEZICHT SOIL SURVEY

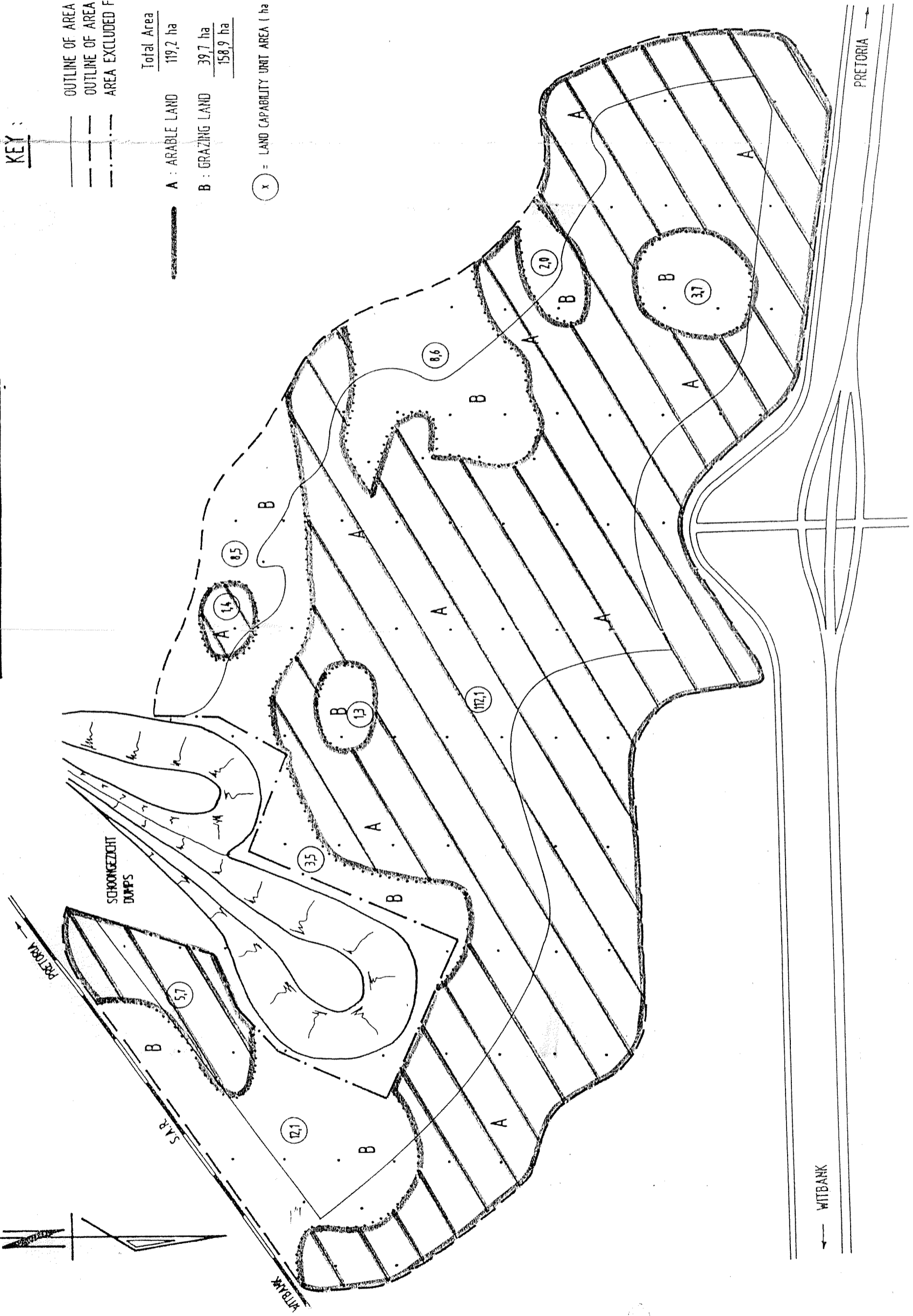
## LAND CAPABILITY CLASS MAP

**KEY :**

- (dashed line) — OUTLINE OF AREA TO BE MINED
- (solid line) — OUTLINE OF AREA WHICH WILL BE AFFECTED BY MINING
- (dash-dot line) — AREA EXCLUDED FROM SOIL SURVEY

	Total Area	%
A : ARABLE LAND	119,2 ha	75
B : GRAZING LAND	39,7 ha	25
	158,9 ha	100

(X) = LAND CAPABILITY UNIT AREA ( ha )



SCALE 1 : 7500



**SUPPLEMENTARY REPORT NO. 2**

PRE-MINING SURVEY OF VEGETATION AND WILD LIFE WITHIN THE AREA OF THE NEW 2 SEAM MINIPIT IN THE SCHOONGEZICHT VALLEY (LANDAU COLLIERY).

SUMMARY:

A pre-mining vegetation survey was conducted within the proposed mini pit area in the Schoongezicht valley. A comprehensive survey of resident fauna was not possible in the time available. Red data species which may occur in the district were listed and a comment made on their possible presence based on habitat availability, the degraded nature of the natural vegetation and the close proximity of the Lynneville suburb of Witbank.

INTRODUCTION:

A pre-mining survey of the area of the proposed Schoongezicht 2 seam minipit area was requested by Landau Colliery, to fulfil EMPR requirements. The objectives of the survey were twofold, namely to assess the condition and composition of the vegetation within the designated minipit area and secondly to determine whether any rare or endangered species (red data species) were present prior to the commencement of mining. A detailed vegetation survey was undertaken to identify species present, to identify different plant communities present and to assess species abundance and basal cover within the major plant communities recognised. Fauna observed during the survey period are listed. In addition, all red data species which may occur in this region, as determined from published distribution maps, have been tabulated and a comment is made on their possible presence in the minipit area, based on habitat availability. Species lists from previous surveys on adjoining land are included as appendices.

The area to be mined is located in the Schoongezicht valley south of the Witbank - Pretoria highway.

METHODS:

Vegetation abundance and basal cover were assessed using a descending point method. When determining abundance, the nearest plant to the dropped point was scored. When basal cover was determined each dropped point was scored as a strike (on a plant) or a miss (on bare ground). Four hundred descending points were used. In addition to the species sampled using the above methods, a total collection of all species detected in each plant community was made and a comprehensive species list for the surveyed area compiled.

VEGETATION:

Approximately 50 % of this area has either been previously disturbed by mining activity, or is covered by coal discard dumps. The north western portion of the designated area comprises a diverse community of species common to the eastern variation of Bankenveld. This area has at some point in the past been disturbed. This past disturbance is reflected in the dominance of the grasses *Hyparrhenia hirta* and *Eragrostis racemosa* and local abundance of *Aristida diffusa*. The eastern variation of Bankenveld, if well managed and in good condition, is dominated by grass species such as *Tristachya leucothrix*, *E. racemosa*, *Heteropogon contortus*, *Digitaria tricholaenoides* and *Themeda triandra*. Under poor management (eg. incorrect use of fire, overgrazing & physical disturbance) annual species and species of low palatability increase in abundance. Such species would include the grasses *H. hirta*, *Aristida spp.*, *Cynodon dactylon* and

the shrub *Stoebe vulgaris* which proliferates in overgrazed areas.

#### Plant communities:

Within the designated minipit area two plant communities were recognised (Plan. 1):

- A: a mixed grassland community dominated by *Heteropogon contortus*, *Hyparrhenia hirta* & *Eragrostis racemosa*, and
- B: a highly variable vegetation community present on land adjacent to the discard dumps. This community has established following significant disturbance.

The mixed grassland community (A) comprises the bulk of the natural vegetation within the minipit area (Table 1). The grassland is dominated by *H. contortus* (19.0 % abundance), with *E. racemosa* (11.3 %), *H. hirta* (11.0 %) and *Microchloa caffra* (10.0 %) in abundance. Species present at a level between 5 - 10 percent are *T. triandra* (9.0 %) and *A. diffusa* (6.8 %).

Basal cover equals 15.0 %.

The disturbed vegetation community adjacent to the discard dumps present on the designated site is dominated by *H. hirta*, although *Cynodon dactylon* attains local dominance in areas impacted by the existing dumps. Vegetation abundance and basal cover were not quantified within this community on account of the high degree of variability in both vegetation composition and cover. The condition of the natural vegetation within this community is poor and numerous exotic species, including Black wattle (*Acacia mearnsii*), ink berry (*Phytolacca octandra*) and wild tomato (*Solanum sisymbriifolium*), are present.

The natural vegetation within the mixed grass community (A) represents a stable grassland community with a good basal cover. No endangered or rare plant species were identified within the area of the proposed minipit. A full list of plant species identified is included (Appendix 1). Plant species identified in previous vegetation surveys of adjacent land areas are listed (Appendix 2)

#### AMPHIBIANS AND REPTILES:

No reptiles or amphibians were observed during the survey period. Based on published distributions of red data species, no threatened reptile or amphibian species occur in the Witbank region.

#### BIRDS:

Birds observed during the survey period were:

Common name	SA Bird No.
Yellowbilled duck	104
Diederik cuckoo	386
Red eyed dove	352
Laughing dove	355
Little swift	417
Fiscal shrike	732
Red bishop	824
Redshouldered widow	828

Table 1: Vegetation abundance and plant basal cover within the area of the proposed Schoongesicht 2 seam minipit. Transects A to D are indicated on plan 1.

Family	Genus	Species	Vegetation abundance (%)				Average abundance
			Transect				
			A	B	C	D	
Asteraceae	<i>Stoebe</i>	<i>vulgaris</i>		1	1	4	1.5
Campanulaceae	<i>Wahlenbergia</i>	<i>caledonica</i>	1			3	1.0
Capparaceae	<i>Cleome</i>	<i>maculata</i>			1		0.3
Chrysoblanaceae	<i>Parinaria</i>	<i>capensis</i>	8	4		3	3.8
Convolvulaceae	<i>Ipomoea</i>	<i>crassipes</i>		1			0.3
Cyperaceae	<i>Cyperus</i>	<i>rupestris</i>				1	0.3
Hypoxidaceae	<i>Hypoxis</i>	<i>acuminata</i>		1			0.3
	<i>Hypoxis</i>	<i>rigidula</i>				1	0.3
Liliaceae	<i>Ledebouria</i>	<i>cooperi</i>		2	1		0.8
	<i>Ledebouria</i>	<i>ovatifolia</i>	3				0.8
Mimosaceae	<i>Elephantorrhiza</i>	<i>elephantina</i>	1				0.3
Papilionaceae	<i>Indigofera</i>	<i>daleoides</i>	1	1	2	1	1.3
Poaceae	<i>Alloterospis</i>	<i>semialata</i>		1			0.3
	<i>Andropogon</i>	<i>schirensis</i>	7		8	5	5.0
	<i>Aristida</i>	<i>diffusa</i>	3	1	15	8	6.8
	<i>Cynodon</i>	<i>dactylon</i>		8	1	1	2.5
	<i>Eragrostis</i>	<i>capensis</i>	7				1.8
	<i>Eragrostis</i>	<i>curvula</i>	3	4	2	3	3.0
	<i>Eragrostis</i>	<i>gummiflua</i>			2		0.5
	<i>Eragrostis</i>	<i>racemosa</i>	1	9	18	17	11.3
	<i>Heteropogon</i>	<i>contortus</i>	16	21	19	20	19.0
	<i>Hyparrhenia</i>	<i>hirta</i>		12	15	17	11.0
	<i>Microchloa</i>	<i>caffra</i>	15	12	8	7	10.5
	<i>Panicum</i>	<i>natalense</i>		4		2	1.5
	<i>Perotis</i>	<i>patens</i>	1	1	2	1	1.3
	<i>Sorghum</i>	<i>bicolor</i>	1				0.3
	<i>Sporobolus</i>	<i>africanus</i>		1			0.3
	<i>Themeda</i>	<i>triandra</i>	18	9	5	4	9.0
<i>Trachypogon</i>	<i>spicatus</i>	6	6		2	3.5	
<i>Tristachya</i>	<i>leucothrix</i>	4				1.0	
Polygalaceae	<i>Poygala</i>	<i>hottentotta</i>	4				1.0
Rubiaceae	<i>Pentanisia</i>	<i>angustifolia</i>		1			0.3

Basal cover (%)	15	16	14	15	15
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Bird species which may occur in the Witbank district and are listed in the South African Red Data Book are tabulated below. A comment is made on whether these species can be expected to occur in the survey area.

Common name	SA bird No.	Status <sup>1</sup>	Comment
Bittern	80	R	favours large swamps with tall vegetation: favoured habitat absent - occurrence unlikely
Grass owl	393	I	favours perennial grassland ca. 1m high: occurrence possible
Yellowbreasted pipit	725	V	favours high altitude grassland, but shy of disturbance: area subject to human disturbance - occurrence unlikely

<sup>1</sup> R = Rare: I = Indeterminate: V = Vulnerable

### MAMMALS:

No mammals were observed during the survey period, but droppings of common duiker and mole hills were evident. Mammals which may occur in the Witbank district, and are listed in the South African Red Data Book are tabulated below. A comment is made on whether these species can be expected to occur in the survey area.

Common name	Status <sup>1</sup>	Comment
Rough-haired golden mole	V	burrows entrance open at surface: not evident in survey area
Oribi	V	grassland in survey area is degraded - occurrence unlikely
African wildcat	V	occurrence possible
Antbear	V	no evidence of antbear burrows in survey area - occurrence possible
Striped weasel	R	observed as roadkill in witbank district - occurrence possible
Aardwolf	R	no evidence of burrows of sufficient size - occurrence unlikely
Brown hyaena	R	occurrence unlikely

<sup>1</sup> R = Rare: I = Indeterminate: V = Vulnerable

**B.J.M. Baxter**  
AMCOAL ENVIRONMENTAL SERVICES

Appendix 1: List of plant species identified within the area area of the proposed Schoongesicht 2 seam minip

Family	Genus	Species
Poaceae	<i>Alloteropsis</i>	<i>semialata</i>
Poaceae	<i>Andropogon</i>	<i>schirensis</i>
Poaceae	<i>Aristida</i>	<i>diffusa</i>
Capparaceae	<i>Cleome</i>	<i>maculata</i>
Poaceae	<i>Cynodon</i>	<i>dactylon</i>
Cyperaceae	<i>Cyperus</i>	<i>rupestris</i>
Mimosaceae	<i>Elephantorrhiza</i>	<i>elephantina</i>
Poaceae	<i>Eragrostis</i>	<i>capensis</i>
Poaceae	<i>Eragrostis</i>	<i>curvula</i>
Poaceae	<i>Eragrostis</i>	<i>gummiflua</i>
Poaceae	<i>Eragrostis</i>	<i>racemosa</i>
Poaceae	<i>Heteropogon</i>	<i>contortus</i>
Poaceae	<i>Hyparrhenia</i>	<i>hirta</i>
Hypoxidaceae	<i>Hypoxis</i>	<i>acuminata</i>
Hypoxidaceae	<i>Hypoxis</i>	<i>rigidula</i>
Papilionaceae	<i>Indigofera</i>	<i>daleoides</i>
Convolvulaceae	<i>Ipomoea</i>	<i>crassipes</i>
Liliaceae	<i>Ledebouria</i>	<i>cooperi</i>
Liliaceae	<i>Ledebouria</i>	<i>ovatifolia</i>
Poaceae	<i>Microchloa</i>	<i>caffra</i>
Poaceae	<i>Panicum</i>	<i>natalense</i>
Chrysoblanaceae	<i>Parinari</i>	<i>capensis</i>
Rubiaceae	<i>Pentanisia</i>	<i>angustifolia</i>
Poaceae	<i>Perotis</i>	<i>patens</i>
Polygalaceae	<i>Poygala</i>	<i>hottentotta</i>
Poaceae	<i>Sorghum</i>	<i>bicolor</i>
Poaceae	<i>Sporobolus</i>	<i>africanus</i>
Asteraceae	<i>Stoebe</i>	<i>vulgaris</i>
Poaceae	<i>Themeda</i>	<i>triandra</i>
Poaceae	<i>Trachypogon</i>	<i>spicatus</i>
Poaceae	<i>Tristachya</i>	<i>leucothrix</i>
Campanulaceae	<i>Wahlenbergia</i>	<i>caledonica</i>
Poaceae	<i>Brachiaria</i>	<i>serrata</i>
Poaceae	<i>Cortaderia</i>	<i>jubata</i>
Crassulaceae	<i>Crassula</i>	<i>capitella</i>
Amaryllidaceae	<i>Crinum</i>	<i>spp.</i>
Poaceae	<i>Ctenium</i>	<i>concinnum</i>
Cucurbitaceae	<i>Cucumis</i>	<i>zeyheri</i>
Cyperaceae	<i>Cyperus</i>	<i>esculentus</i>
Poaceae	<i>Diheteropogon</i>	<i>amplectens</i>
Ebenaceae	<i>Diospyros</i>	<i>lycioides</i>
Poaceae	<i>Echinochloa</i>	<i>colona</i>
Poaceae	<i>Elionurus</i>	<i>muticus</i>
Poaceae	<i>Fingerhuhtia</i>	<i>africana</i>
Iridaceae	<i>Gladiolus</i>	<i>elliottii</i>
Amaranthaceae	<i>Gomphrena</i>	<i>celosioides</i>
Poaceae	<i>Harpochloa</i>	<i>fax</i>
Poaceae	<i>Harpochloa</i>	<i>lyrata</i>
Hypoxidaceae	<i>Hypoxis</i>	<i>obtusa</i>
Papilionaceae	<i>Lotononis</i>	<i>calycina</i>
Poaceae	<i>Melenis</i>	<i>nerviglumis</i>
Poaceae	<i>Melenis</i>	<i>repens</i>
Poaceae	<i>Paspalum</i>	<i>dilatatum</i>
Geraniaceae	<i>Pelargonium</i>	<i>luridum</i>
Poaceae	<i>Pogonarthria</i>	<i>squarrosa</i>
Solanaceae	<i>Solanum</i>	<i>sisymbriifolium</i>
Poaceae	<i>Stipagrostis</i>	<i>uniplumis</i>
Poaceae	<i>Trichoneura</i>	<i>grandiglumis</i>
Scrophulariaceae	<i>Zahuzianskva</i>	<i>katharinae</i>

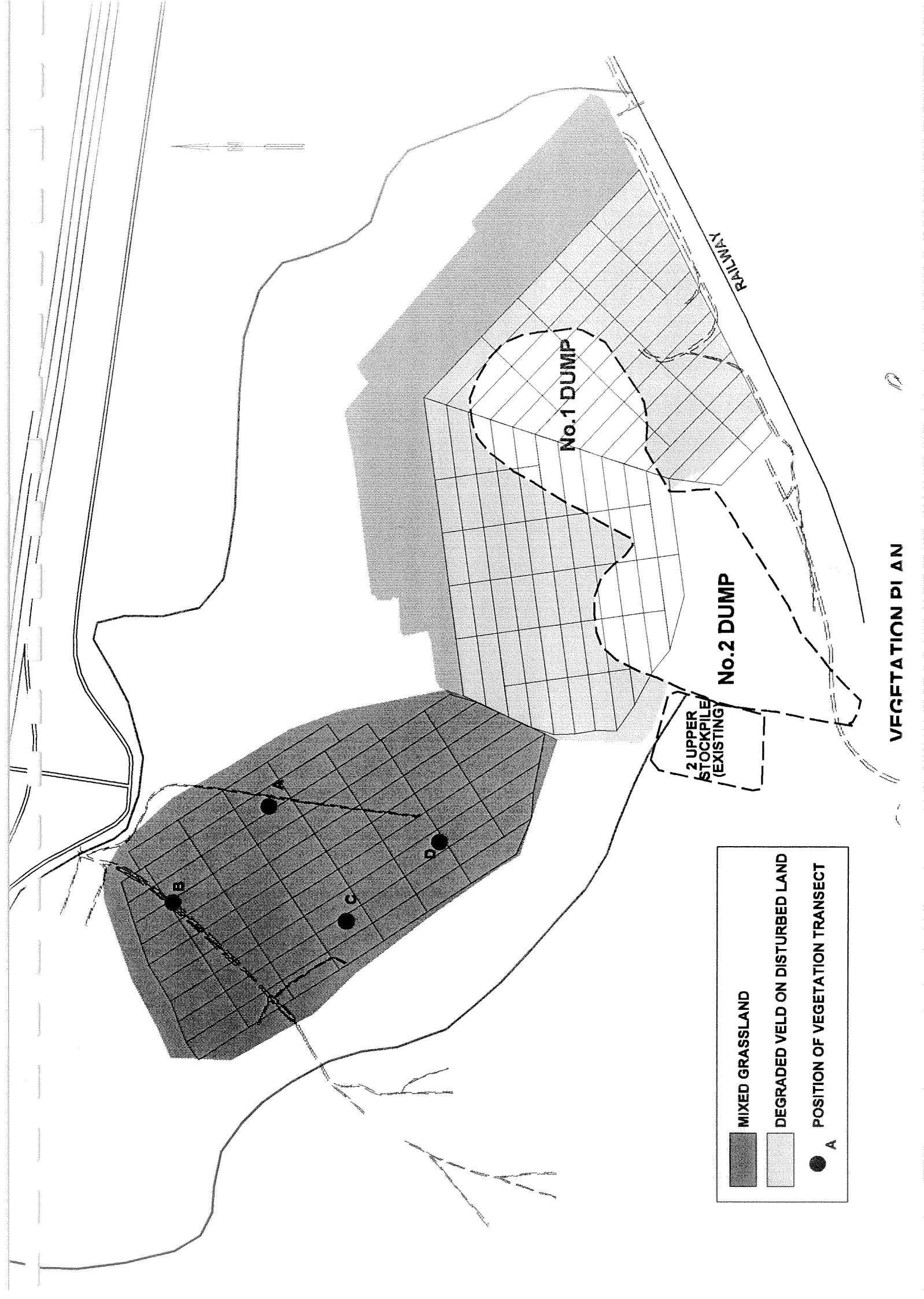
Appendix 2: List of species previously recorded in surveys of areas adjacent to the proposed 2 seam minipit.

Family	Genus	Species	Sub-sp.	Colliery	Area surveyed	Data source	Degree sq.
Amaranthaceae	<i>Amaranthus</i>	<i>hybridus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Andropogon</i>	<i>chinensis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Andropogon</i>	<i>schirensis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Aristida</i>	<i>congesta</i>	<i>congesta</i>	Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Aristida</i>	<i>diffusa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Aster</i>	<i>harveyanus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Bidens</i>	<i>formosa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Bidens</i>	<i>pilosa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Callilepis</i>	<i>leptophylla</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Capparaceae	<i>Cleome</i>	<i>maculata</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Commelinaceae	<i>Commelina</i>	<i>livingstonii</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Crassulaceae	<i>Crassula</i>	<i>spp</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Crepis</i>	<i>hypochoeridea</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Ctenium</i>	<i>concinnum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Cymbopogon</i>	<i>excavatus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Cynodon</i>	<i>dactylon</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Diconia</i>	<i>anomala</i>	<i>anomala</i>	Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Ebenaceae	<i>Diospyros</i>	<i>lycoidis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Elionurus</i>	<i>muticus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eragrostis</i>	<i>chloromelas</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eragrostis</i>	<i>curvula</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eragrostis</i>	<i>gummiflua</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eragrostis</i>	<i>micrantha</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eragrostis</i>	<i>racemosa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Eulalia</i>	<i>villosa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Euryops</i>	<i>laxus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Felicia</i>	<i>muricata</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Gazania</i>	<i>krebsiana</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Amaranthaceae	<i>Gomphrena</i>	<i>celosioides</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Helichrysum</i>	<i>cephaloideum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Helichrysum</i>	<i>coriaceum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Helichrysum</i>	<i>kraussii</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Helichrysum</i>	<i>rugulosum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Heteropogon</i>	<i>contortus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Hyparrhenia</i>	<i>hirta</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC

Family	Genus	Species	Sub-sp.	Colliery	Area surveyed	Data source	Degree-yr
Papilionaceae	<i>Indigofera</i>	<i>daleoides</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Papilionaceae	<i>Indigofera</i>	<i>melanadenia</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Convolvulaceae	<i>Ipomoea</i>	<i>purpurea</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Acanthaceae	<i>Justicia</i>	<i>anagalloides</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Liliaceae	<i>Ledebouria</i>	<i>spp</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Lamiaceae	<i>Leonotis</i>	<i>microphylla</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Campanulaceae	<i>Lobelia</i>	<i>erinus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Papilionaceae	<i>Lotononis</i>	<i>calycina</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Loudetia</i>	<i>simplex</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Cyperaceae	<i>Mariscus</i>	<i>congesta</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Melenis</i>	<i>repens</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Microchloa</i>	<i>caffra</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Monocymbium</i>	<i>ceresiforme</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Nidorella</i>	<i>anomalla</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Panicum</i>	<i>detustum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Panicum</i>	<i>natalense</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Paspalum</i>	<i>ditatatum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Adiantaceae	<i>Pellaea</i>	<i>calomelanos</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Rubiaceae	<i>Pentanisia</i>	<i>angustifolia</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Perotis</i>	<i>patens</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Pogonanthria</i>	<i>squarrosa</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Illecebraceae	<i>Pollichia</i>	<i>canipestris</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Polygalaceae	<i>Poygala</i>	<i>hottentotta</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Schistostephium</i>	<i>crataegifolium</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Schizachyrium</i>	<i>sanguineum</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Schkuhria</i>	<i>pinnata</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Cyperaceae	<i>Schoenoplectus</i>	<i>corymbosus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Selaginellaceae	<i>Selaginella</i>	<i>dregei</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Senecio</i>	<i>coronatus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Senecio</i>	<i>lydenburgensis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Setaria</i>	<i>pallide-fusca</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Sporobolus</i>	<i>africanus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Sporobolus</i>	<i>nitens</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Stoebe</i>	<i>vulgaris</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Scrophulariaceae	<i>Striga</i>	<i>elegans</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Tagetes</i>	<i>minuta</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Themeda</i>	<i>triandra</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC



Family	Genus	Species	Sub-sp.	Colliery	Area surveyed	Data source	Degree sq.
Poaceae	<i>Trachypogon</i>	<i>spicatus</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Trichoneura</i>	<i>grandiglumis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Tristachya</i>	<i>biseriata</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Verbenaceae	<i>Verbena</i>	<i>brasiliensis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Asteraceae	<i>Vernonia</i>	<i>natalensis</i>		Landau	Schoongezicht minipit	Survey: B.Baxter 1994	2628CC
Poaceae	<i>Aristida</i>	<i>congesta</i>	<i>congesta</i>	Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Aristida</i>	<i>junciformis</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Cynodon</i>	<i>dactylon</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Eragrostis</i>	<i>curvula</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Eragrostis</i>	<i>plana</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Eragrostis</i>	<i>racemosa</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Heteropogon</i>	<i>contortus</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Hypparrhenia</i>	<i>hirta</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Melenis</i>	<i>repens</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Monocymbium</i>	<i>ceresiforme</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Paspalum</i>	<i>distichum</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Perotis</i>	<i>patens</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Pogonanthria</i>	<i>squarrosa</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Sporobolus</i>	<i>africanus</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Themeda</i>	<i>triandra</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC
Poaceae	<i>Tristachya</i>	<i>leucothrix</i>		Landau	Old Schoonie 2 seam minipit	Survey: Smith & Tanner 198	2628CC



**SUPPLEMENTARY REPORT NO. 3**

AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED

SOUTH AFRICAN COAL ESTATES DIVISION

LANDAU COLLIERY

MINUTES OF MEETING HELD WITH WITBANK TOWN COUNCIL TOWN CLERK ON  
4TH OCTOBER 1996 AT 14:30.

Present: J Luus - Town Clerk (Acting)  
P Stone - Town Engineer (Acting)  
J Jacobs - Town Secretary  
A C Johnson - Assistant Mine Manager, Landau  
A McLeod - Pit Superintendent, Mini-Pit  
M Rutherford - Senior Divisional Mining  
Engineer.  
H Niewhoudt - AAC Mining Titles.

Apologies: M T Brett - Consulting Mining Engineer,  
Amcoal

A letter was presented to the Town Clerk notifying the Town Council of the intention, by Landau Colliery, to re-open the Schoongezicht 2 seam mini-pit.

A general plan showing the location of the site was tabled and explained, showing existing voids, dumps and proposed mining layout.

The need for residential areas on which to build was reported to the mine as being quite urgent by Witbank Town Council and they expressed their satisfaction that land would be made available within 3 to 4 years.

The town council's main concern was that the area be rehabilitated to a satisfactory standard.

The following points, which are covered by the Minerals Act, under which the Colliery is governed, were outlined. They also form the bulk of the Environmental Management Programme Report (EMPR):

1. A soil survey has previously been done. More work will be done ahead of mining and also of the area that has been profiled.
2. A fauna & flora survey will be commissioned.
3. A pre-mining dust survey will be carried out and dust will be minimised and monitored during mining operations.

Assistance was requested in approaching the residents of Schoongezicht so that various tests and surveys could be done prior and during mining. 2/...

4. Ground & air vibration limits will be established by Amcoal's drill & blast consultant Dr W A Crosby. Monitoring points would have to be established in the Schoongezicht township in order to do this.
5. A pre-mining housing structural defect survey will be carried out on some of the 70% private houses and 30% council houses in the Schoongezicht township. A pre-mining photographic record of all houses and structures surrounding the mining area will be done. This will be to ascertain the validity of any claims and to assist in determining the level of compensation if deemed necessary.  
  
Assistance in the best manner to approach the residents was requested.
6. Surface and ground water studies will be carried out by Wates, Meiring & Bernard, who will recommend the position of monitoring points.
7. The Witbank Town Council was requested to inform Landau Colliery, who the Town Council consider to be interested and affected parties.

The Town Clerk replied that the notification letter, a copy of the minutes of the meeting and the plan tabled would be sufficient to notify the Town Councillor, who would notify the residents. Schoongezicht consists of 1 ward, but Kwa-Guqa ward may also be affected. Various committees and residents associations would also be notified. Likely venue for a public meeting would be the Community Hall, Kwa-Guqa or Council Chambers in Witbank or Kwa-Guqa.

The matter will be passed on to a meeting of the Executive Committee on 23rd October and then to a meeting of the full Council on 29th October.

A reply would be forthcoming to Landau Colliery in early November.

The Department of Mineral & Energy Affairs and the Department of Water Affairs & Forestry, will also be advised in writing that the mining of the mini-pit will re-commence.

The proposed plan for submitting the EMPR is as follows:

A meeting with these two departments will be held to brief them of the proposed plan for submitting the EMPR.

Due to the shortage of time to complete all the necessary environmental investigations a EMP Commitment Report will be submitted prior to mining activity commencing. This report will commit to all the necessary EMP requirements and will undertake to submit the full EMPR by 31 July 1997.

3/...

The aforementioned meeting of interest and affected parties will be held prior to any mining activity commencing and also prior to submission of the EMP Commitment Report.

The WTC will be supplied full copies of both the EMP Commitment Report and the final EMPR. Additional copies will be provided for representatives of the Schoongezicht township.

*AMcLeod*

A McLEOD  
MINI-PIT SUPERINTENDENT

cc J N Wallington

AMcL\01\ct  
9 October 1996



an **AMCOAL** company

**Amcoal Colliery and Industrial Operations Limited**

Incorporated in the Republic of South Africa  
Reg. No. 01/05730/06

44 Main Street Johannesburg 2001  
P O Box 61587 Marshalltown 2107  
Telex 4-87167 SA  
Telegraph Anmercosa  
Telephone 638-9111  
Fax 638-4608

Our ref : MLP/Mr Nieuwoudt W/Landau/15/1 (Schoongezicht)

1 October 1996

**BY HAND**

The Town Clerk  
City Council of Witbank  
P O Box 3  
WITBANK  
1035

Dear Sirs

**NOTARIAL MINERAL LEASE NO K2999/1994L : VARIOUS PORTIONS AND  
MINERAL AREAS ON THE FARM SCHOONGEZICHT 308 AND SCHOONBANK  
299, REGISTRATION DIVISION J S, TRANSVAAL : TOWN COUNCIL OF  
WITBANK.**

The company's preparatory activities are now approaching completion and active mining will shortly commence. Thereafter, the company will continue its operations as provided in the abovementioned Mineral Lease.

The operations will require close collaboration with yourselves in view of the provisions of clauses 4, 5 and 6 of the Mineral Lease, and we will ask the Mine Manager to communicate with you to arrange suitable procedures.

We look forward to a smooth relationship in the conduct of these activities.

Yours faithfully

  
E FORD  
DIRECTOR

/EO HNNLET749



AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED

SOUTH AFRICAN COAL ESTATES DIVISION

LANDAU COLLIERY

MINUTES OF MEETING HELD WITH DEPARTMENT OF MINERAL AND ENERGY  
AFFAIRS TO PRESENT PRELIMINARY EMPR FOR SCHOONGEZICHT 2 SEAM MINI-PIT  
HELD IN THE NAVIGATION BOARDROOM ON 13TH FEBRUARY 1997 AT 09:00

PRESENT : TONY JOHNSON - SACE  
ANDY McLEOD - SACE  
ANGUS CHRISTIE - SACE  
ANGUS NICOLL - SACE  
MIKE BRETT - AMCOAL HEAD OFFICE  
BRENT BAXTER - AES  
DEON DU PLESSIS - DMEA  
JOHAN BORNMAN - DMEA  
BLANCHE POSTMA - DWAF  
JOHAN MARAIS - DWAF  
ANDRÉ VAN NIEKERK - WATES, MEIRING AND BARNARD  
TREVOR COLEMAN - WATES, MEIRING AND BARNARD  
LINDA SHAMROCK - WATES, MEIRING AND BARNARD  
TERRY HARCK - WATES MEIRING AND BARNARD

The Department of Forestry and Department of Environmental Affairs were not present. Copies of the Provisional EMPR were handed to all present, with additional copies to be passed over to the Department of Forestry and Department of Environmental Affairs by Johan Bornman.

Tony Johnson welcomed all present and gave a brief overview of the proposed 2 seam mini-pit, detailing the following aspects:

1. Phasing in - As 4 seam finishes, 2 seam operations will start up.
2. Schedule of 2 seam opening
  - Topsoil in March 1997
  - Overburden in April 1997
  - Coal in May 1997
3. Locality, layout and historical description.

André van Niekerk of Wates, Meiring and Barnard, who have been requested by Landau Colliery to conduct the studies of the surface and groundwater aspects of the EMPR, gave an overview of the work done to date.

The following aspects were detailed by the respective responsible persons from Wates Meiring and Barnard.

1. Base-line water quality information - Linda Shamrock

The area has been impacted by previous mining in the area.

Water of poor quality enters and leaves SACE property via the Townshipspruit.

2. Pit Modelling - Trevor Coleman

The planned mining sequence was described, as was the I seam floor contours. The modelling was done block for block, with floor slope, sequencing and pumping being the major factors.

Preliminary results show the average daily pit pumping requirement for a dry cycle is 0.248 M litre/day and 0.5 M litre/day in a wet cycle.

Trevor highlighted the need for a conclusive and quantifiable plan of action with respect to the existing void.

3. Ground Water - Terry Harck

During the mining phase, pumping activities will handle most of the in-pit water.

The post-mining scenario must be evaluated to determine the decant and seepage potential. Also the possibility of decant into the sub-surface must be determined. It is necessary to drill 7 (seven) holes to characterise the permeabilities of the various horizons and contacts.

Acid base accounting of several boreholes and the discard dumps has been done and initial results indicate a predominantly acid domain of the spoils. The discard dumps (washable and inert material) are definitely acidic.

A point noted was the need for Schoongezicht residents to be advised about possible future adverse impacts on the ground water in the vicinity of planned future housing developments.

Johan Bornman outlined the procedure to be followed before Temporary Mining Authorisation can be issued. DMEA will distribute copies of the preliminary EMPR to the Department of Forestry and Department of Environmental Affairs, who will be given 30 days to consider its contents.

DMEA expressed their initial considerations, in particular with respect to the proximity of the Schoongezicht Township.

It was enquired if borehole survey and water quality and quantity surveys had been carried out in township. A J McLeod to ascertain if boreholes are available in the township.

Andy McLeod detailed the work done to date with respect to the following areas:

1. A full pre-mining house survey has been carried out of over 500 houses in the Schoongezicht Township.

2. Several meetings have been held with the Schoongezicht Residents Council, which was initiated after Landau Colliery approached the residents. A relationship has developed between the two parties based upon trust and mutual respect.
3. Blasting tests have been conducted under the guidance of independent blasting consultants, from which blasting guidelines will be extrapolated.

The DMEA explained that for a Temporary Mining Authorisation to be granted, the following would need to be attended to:

1. Critical issues to be identified by DMEA.
2. Critical issues that can be dealt with, to be addressed by DMEA.
3. A commitment to address outstanding critical issues to be made.

The preliminary EMPR seemed to address most of the critical issues but it would first have to be scrutinized.

A preliminary report of the items presented by Wates, Meiring and Barnard to be compiled and submitted to DWAF, to allow DWAF to identify their critical issues, would be required. This will be submitted by Wates, Meiring and Barnard via SACE within 2 weeks.

A site visit was then held and the meeting closed.

AJMcL/mmw/27/02/97  
Q:\AJM\95

AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED

SOUTH AFRICAN COAL ESTATES DIVISION

LANDAU COLLIERY

NOTE FOR THE RECORD

DATE : 29 April 1997

To date, the following meetings have been held with residents in the vicinity of the proposed Schoongezicht 4 seam mini-pit area.

DATE	TIME	VENUE	ATTENDANCE	COMMENTS
05.11.96	18:00	Lynville Hall	2	Not attended by residents
07.11.96	18:00	Witbank Prim	±50	Residents decided to elect committee
20.11.96	19:00	Navigation Boardroom	7	1st meeting with Schoongezicht Resident Council
03.12.96	19:00	Navigation	10	Bauer & Crosby gave demonstration
07.01.97	19:00	Navigation	11	
04.02.97	19:00	Navigation		Meeting cancelled at S R C request
04.03.97	19:00	Navigation	8	
08.04.97	19:00	Navigation	5	

A visit by 50 Std. 6 pupils of Witbank Primêre Skool was held on Tuesday 25th March 1997.

cc A C Johnson

AMcL\ct  
Q:AMcL\Sch.Mtg

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**MINUTES OF MEETING HELD WITH SCHOONGEZICHT RESIDENTS COMMITTEE ON  
WEDNESDAY, 20TH NOVEMBER 1996 AT 19:00 IN THE NAVIGATION BOARDROOM**

**PRESENT :** TREVOR VD BERG - SRC  
CHRIS TROMPETTER - SRC  
LUCKY SILANDE - SRC  
MARIE DYSON - SRC  
TONY JOHNSON - SACE  
JOHN WALLINGTON - SACE  
ANDY McLEOD - SACE

**APOLOGIES :** JEFF BOWMAN - SRC  
ISRAEL LOUW - SRC  
RONNIE KOCH - SRC (arrived late)  
GAVIN RYAN - SRC

A proposal by Tony Johnson that regular meetings be held on the first Tuesday of every month at Navigation boardroom, was agreed to.

Date of next meeting Tuesday, 7th January 1997 at 19:00 in the Navigation boardroom.

Minutes to be kept by Andy McLeod who will post them to Trevor vd Berg promptly for distribution and correction if applicable.

Main concerns expressed by SRC, not in order of priority:

1. An investigation of all the houses in Schoongezicht was requested prior to mining to ascertain the extent of cracks.

SACE agreed to this. It was also mentioned that SACE intend to utilise students to carry out the house survey and Schoongezicht students will be utilised. Andy McLeod to liaise with Trevor vd Berg to obtain names of suitable students.

2. It was requested that existing cracks be repaired prior to mining, so that when new cracks appear they can be quickly identified. SACE replied that this would not be done. New cracks or extensions of old cracks could be evaluated in comparison with the pre-mining house survey and if they coincide with the monitoring results this would indicate damage due to blasting.



The issue of whether cracks are blasting induced or occur as a result of foundation settlement, poor construction etc. would have to be evaluated on the house in question, using all the information available. Where it could be proven it was blasting induced SACE would pay for the repairs. The question of a poorly built house suffering damage by minor blasting vibration when it was on the point of collapsing anyway was not resolved.

3. The health and nervous disorders, especially of children as a result of blasting noise to be investigated prior to mining by a suitably qualified person, SACE agreed to investigate the matter and report back as soon as possible.
4. Monitoring of dust does not prevent lung or breathing problems in the long term. The control of dust generation to acceptable levels must be carried out. SACE agreed to investigate the matter and report back as soon as possible.
5. Prior warning was requested before any blasting. SACE agreed and tests currently under way will be suspended until Friday 29th, so that Schoongezicht residents can be informed on Thursday 28th, at their feedback meeting. Warning will initially be done by a siren to evaluate its impact and suitability and feedback is requested to see if a siren is acceptable.
6. Surface rights are owned by Witbank Town Council and the Mineral rights by Amcoal. Once mining is completed, the surface will be rehabilitated (i.e. levelled off, sloped to allow free drainage, topsoiled and grassed) and returned to Witbank Town Council for Witbank Town Council to develop as they see fit. The undisturbed area, downhill from the current void up to the stream would be suitable for housing development. The disturbed and subsequently re-habilitated land would settle slowly over the years and would not be suitable for housing.
7. The Schoongezicht residents feel as they must bear the brunt of the inconvenience of mining, they must benefit at the end of the mining project. They are concerned that Witbank Town Council may dispose of the land in another manner and they will lose out.

SACE replied that this was a matter out of their hands, and it was not in SACE power to dictate to Witbank Town Council how they must develop their own land.

8. All communication to be in writing so that all agreements are recorded. Also detailed safety and security precautions to be submitted to SRC.

SACE agreed to this.

#### Additional points

SACE have already taken steps towards giving Schoongezicht residents more opportunity to obtain employment with SACE. Also the date on which people can apply for an apprenticeship will be forwarded to the SRC as soon as the date is set.

Roads - Schoongezicht roads will not be used as part of the mining operation, and hence will not be damaged by the mining.

**Contact telephone numbers**

<b>Trevor vd Berg</b>	<b>990980 / 082 457 1965</b>
<b>Chris Trompetter</b>	<b>902309 (W)</b>
<b>Lucky Silande</b>	<b>990757 (H) 97 Mart Street</b>
<b>Marie Dyson</b>	<b>962307 (H)</b>
<b>Jeff Bowman</b>	<b>909575 (W)</b>
<b>Andy McLeod</b>	<b>913 3606 (W)</b>
<b>Tony Johnson</b>	<b>913 3807 (W)</b>
<b>John Wallington</b>	<b>913 3122 (W)</b>

**AJMcL/mmw/25/11/96**  
**Q:\AJM\57**

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**NOTE FOR THE RECORD**

**DATE : 29th November 1996**

**SUBJECT : REPLY TO A QUESTION RAISED ON 7TH NOVEMBER 1996 BY  
SCHOONGEZICHT RESIDENTS COMMITTEE: DUST CONTROL**

In addition to the normal procedures the air quality consultants employed by SACE have been requested to devise a visual observation and recording system as part of an environmental quality assurance system.

Also chemical stabilization (liming) of the main haul road is being investigated.

A list of our normal procedures is outlined for your information:

1. Water tankers on site and in use.
2. Dust sprayers at all crushing points.
3. Contractor to be liable for all occupational diseases levies.
4. Single and double directional dust monitors.
5. Gravimetric dust samples - this forms part of the occupational diseases levy.

Acceptable, existing and unacceptable dust levels to be determined and action plan to be implemented.

**A J McLEOD  
PIT SUPERINTENDENT - MINIPIT**

**AJMcL/mmw/29/11/96  
Q:\AJM\64**

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**MINUTES OF MEETING WITH SCHOONGEZICHT RESIDENTS COMMITTEE (SRC) HELD  
ON 3.12.96 AT 19:00 IN THE NAVIGATION BOARDROOM**

**PRESENT :** CHRIS TROMPETTER - SRC  
LUCKY SIBANDE - SRC  
MARIE DYSON - SRC  
JEFF BOWMAN - SRC  
ISRAEL LOUW - SRC (991267 - H)  
ANDY McLEOD - SACE  
BRIAN ROBERTS - SACE  
MIKE VERTUE - SACE  
JOHN WALLINGTON - SACE  
DAVE HENDERSON - BAUER & CROSBY

**APOLOGIES :** TREVOR VAN DER BERG - SRC  
RONNIE KOCH - SRC  
GAVIN RYAN - SRC  
TONY JOHNSON - SACE

**Corrections to previous minutes:**

Sibande - not Silande

Jeff Bowman's telephone number was incorrect; it is no longer valid.

**Query on Previous minutes:**

**Point 2:** The SRC was under the impression that SACE would consider fixing the existing cracks in the houses, yet SACE stated clearly in point 2 that this would not be done. SACE re-iterated their standpoint. All complaints to be treated on their own merit, given the information available i.e. monitoring results and crack survey. This is a matter which requires a certain degree of mutual trust from both parties.

**Feedback from previous meeting:**

1. Dust control. See note for the record.
2. Nervous Disorders. See note for the record.
3. Security and Safety Precautions - still to be finalised.

4. **Apprentice intake: Steps have been taken and the personnel department will contact the community shortly to let suitable people apply. All applications to be dealt with on merit.**
5. **Results from tests on 20th November 1996. Mr D Henderson from Bauer & Crosby gave an explanation of the testing procedure and initial results.**

**It was explained that Mr Henderson is an independent consultant, however if the SRC wishes to call in their own consultant then all relevant print-outs of recorded information would be made available.**

6. **Report back about progress of the house survey students.**

**Nine (9) students have been employed by Bauer & Crosby and they can expect to earn R1 800 for 4 to 5 weeks work. Progress will be closely monitored to ensure everything goes smoothly.**

### **Future Tests**

**SRC expressed their thanks that tests scheduled for 29.11.96 were again suspended due to residents concerns.**

**It was agreed that tests could re-commence when the house survey had progressed to Kaldine Street. This would be on about 17.12.96. Again it was agreed to use a siren for warning purposes for the initial tests, this method would be monitored as to its efficiency.**

**It was requested that some form of education be given to both school children and the elderly with respect to blasting i.e. video presentation, slides, etc. This was agreed to by SACE who will organize it when the schools re-open.**

**AJM/mmw/09/12/96  
Q:\AJM\69**

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**NOTE FOR THE RECORD**

**DATE : 5th December 1996**

**SUBJECT : REPLY TO A QUESTION ASKED ON 7TH NOVEMBER 1996 AT A  
SCHOONGEZICHT RESIDENTS COMMITTEE MEETING:  
NERVOUS DISORDERS AS A RESULT OF BLASTING**

**Two medical doctors have been consulted, their replies are as follows:**

**Dr R A Bell, Wolwekrans Hospital:**

**Human nature is very adaptable and people very soon adapt to differing environments, i.e. living next to motorways and initially being unable to sleep at night due to the rumbling noise. Provided that accepted limites are not exceeded, no problems can be foreseen.**

**Dr R A Bell is not aware of any studies that have been made concerning this subject, but he will contact the Chamber of Mines Advisory Board to see if any information has been collected.**

**Dr J Pienaar, Amcoal Highveld Hospital:**

**Provided that the residents are well advised of the blasting to take place, and this is forwarded to the children in an appropriate manner and that sufficient warning is given i.e. siren or hooter, no adverse effects can be anticipated.**

**Dr J Pienaar is trying to access the data banks of the University of the Witwatersrand to ascertain if any data has been compiled on this subject.**

**Further feedback will be provided as soon as it becomes available.**

**A J McLEOD  
PIT SUPERINTENDENT - MINIPIT**

**AJMcL/mmw/05/12/96  
Q:\AJM\65**



AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED

SOUTH AFRICAN COAL ESTATES DIVISION

LANDAU COLLIERY

NOTE FOR THE RECORD

DATE : 5th December 1996

SUBJECT : REPLY TO A QUESTION ASKED ON 7TH NOVEMBER 1996 AT A  
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A J McLEOD  
PIT SUPERINTENDENT - MINIPIT

AJMcL/mmw/05/12/96  
Q:\AJM\65

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**MINUTES OF A SCHOONIE RESIDENTS COUNCIL MEETING HELD ON THE 7TH  
JANUARY 1997 AT 19:00**

**PRESENT :** CHRIS TROMPETTER - SRC  
LUCKY SIBANDE - SRC  
MARIE DYSON - SRC  
JEFF BOWMAN - SRC  
ISRAEL LOUW - SRC  
TREVOR VAN DER BERG - SRC  
RONNIE KOCH - SRC  
GAVIN RYAN - SRC  
TONY JOHNSON - SACE  
BRIAN ROBERTS - SACE  
DEON DU TOIT - SACE

**APOLOGIES :** ANDY McLEOD - SACE  
JOHN WALLINGTON - SACE

1. Previous minutes accepted by all present.
2. Leave security on as last minutes.
3. Application forms for SACE apprenticeships have been collected by Schoonie Residents. These should be presented to Joseph Motha at Kleinkopje Mine.
4. Dave Henderson from Bauer & Crosby is still analysing the blast results but requires some information from Landau's Surveyor before finalising the report.
5. The housing survey is going well and an estimated 150 houses remain to be surveyed.
6. No reports or adverse remarks were reported to the mine or the SRC following the blasting on the 16th and 17th of December 1996.
7. A blasting classroom will be organised by the mine for the Schoonie children, at which the elderly and housewives are welcome to attend. The date and venue shall be arranged between the SRC and the mine.
8. Tony Johnson explained to the SRC that the test blasting is to determine the method of blasting that will minimise the disruption to the nearby residents. Through these tests the consultants lay down the limits that the mine must adhere to.

9. Tony Johnson emphasised that despite the proposed, minipit being mined by the contractor who wins the award, the mine will be ultimately responsible for any activity that occurs there. Tony Johnson explained that the blasting which will take place will be of a larger scale than the testing, but will be controlled very closely by the mine and the consultant's monitors. If any damage occurs, the mine will be responsible to repair any such damage, but if the contractors have been negligent then the mine will charge them.

The consultants lay down stipulations such as 'no blasting in adverse weather conditions', i.e. low heavy cloud cover or strong winds, these shall be followed by the successful contractor.

10. Chris Trompetter raised the point that after mining the people of Schoonie village would like the rehabilitated land to be given to them. He requested that the mine petition a Mr Van Castle of Witbank Town Council on their behalf.
11. SRC requested that as the land is rehabilitated, that areas be left flat so as to accommodate football pitches. Tony Johnson confirmed that this will be possible but major landscaping is prohibitive due to the costs involved.
12. Tony Johnson explained that the project will in all reality be postponed by 1 month as regards mining, but activity such as spoil dump removal and topsoiling will commence as soon as the contract is awarded.
13. The SRC thanked the mine for considering the Schoonie residents for employment and Tony Johnson informed the meeting that as well as apprenticeships, operators positions will be available in the near future. The selection and interview process was then also discussed.
14. Tony Johnson left the SRC under no illusion as regards the operation, in that inconveniences will be encountered by the Schoonie residents. However during the 3½ - 4 years of mining, the mine will do everything possible to minimise these problems and on completion, the land and surrounding areas will be in a better condition than they are now.
15. The reports as regards the effects on housing and people living in such housing, living near mining operations, are still being sourced via WITS UNIVERSITY.
16. Dave Henderson will be approached to carry out tests on comparing fire crackers to actual blasts of which he has information on.

The next meeting will be held at 19:00 on Tuesday, 4th February 1997 in the Navigation Boardroom.

BVR/mmw/09/01/97  
Q:\AJM\82

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**MINUTES OF MEETING HELD WITH SCHOONGEZICHT RESIDENTS COMMITTEE ON  
TUESDAY, 4TH MARCH 1997 AT 19:00**

**PRESENT :** ANDY McLEOD, SACE  
DEON DU TOIT, SACE  
MARIE DYSON, SRC  
TREVOR VD BERG, SRC  
RONNIE KOCH, SRC  
LUCKY SIBANDE, SRC  
ISRAEL LOUW, SRC  
JEFF BOWMAN, SRC

**APOLOGIES :** TONY JOHNSON, SACE  
JOHN WALLINGTON, SACE  
CHRIS TROMPETTER, SRC  
GAVIN RYAN, SRC

**1. Amendments to previous minutes**

Gavin Ryan, Lucky Sibande and Israel Louw had not attended the previous meeting as was indicated in the minutes.

**2. The SRC meeting will be handled on SACE's behalf by the mini-pit section manager, as he is directly involved in the running of the operation and is thus familiar with all aspects.**

Mr Johnson and Mr Wallington will thus not attend further meetings, unless their presence is requested or deemed necessary.

However, if the SRC is dissatisfied with the response of the section manager, they are welcome to contact his superior directly.

Agreed by all. A list of contact telephone numbers was requested to be supplied at the end of the minutes.

**3. Security**

Provisional plans were outlined, precise details of fences, trenches and signposts will be supplied as they are installed. It was agreed by all that putting the spoil pile on the inside of the trench would be the most suitable, especially for children. However it would still pose a potential threat to children. Assistance was requested from the SRC about educating children and their parents. A school educational presentation has been planned for 25.3.97.

A request was made for the SRC to draw up a procedure to be followed if a child is found within the mining property, several options were discussed and the SRC agreed to consider them. The possibility of a visit by school children to the mine in order to satisfy their curiosity prior to mining starting, was also muted.

4. Employment

Additional application for employment forms were handed out for distribution.

5. Blast Test Results

A copy of the preliminary report will be sent out with these minutes.

6. House Survey

This has been completed, some houses were omitted, for various reasons. D Henderson of Bauer and Crosby will pick them up.

In addition some houses will be re-checked before mining commences and during the life of the mine as a routine measure and to evaluate "natural" cracking of houses with time.

The performance of the students was praised by Deon du Toit for their safe and efficient work. If any of them require a job reference they are free to ask for one.

Three vibration monitoring stations have been selected and will be installed shortly.

7. School presentation scheduled for 25.3.97. Andy McLeod to liaise with school principal.

Elderly presentation to be held at the local clinic if possible, a date still to be set.

8. Help was requested from SACE to fix the school tennis courts and soccer fields.

It was replied that any help given could only be of a practical type utilising spare resources that SACE has available. SACE does not have resources or expertise to fix tennis courts. However it may be possible to level a playing field and this would be investigated.

9. A question was asked about where does Schoongezicht fit into AMCOAL's welfare philosophy.

It was replied that each mine has a social responsibility to the general area in which it operates via its employees. Firstly by providing employment in the area, which via wages supports the economics of the whole community. Secondly by advancing its own employees for mutual benefit. Facilities are provided on the mine for sport and recreation and employees are encouraged to take part and involve their families. Education facilities are available on the mine for employees and their children. In this manner the whole community benefits. Thus in this respect Schoongezicht is part of Witbank and benefits as

part of the community. It must also be remembered that the main thrust of the activities at Schoongezicht is to complete mining, rehabilitate the area and return it to the Witbank Town Council for their development plans.

10. A survey was requested of how many SACE employees live in Witbank.

It was replied that this type of information was not available and comparisons of employment density is not an accepted practise. The standpoint taken by SACE is that employment is based upon merit and that in an effort to remain consistent SACE would ensure that people in Schoongezicht had as much opportunity to apply for employment or apprenticeship as the rest of the community.

11. Information was requested on the availability of bursaries for high school students. This will be investigated and replied upon.
12. No feedback available yet on the effects of people living near mining operation.
13. D Henderson of Bauer and Crosby replied on the question of firing fire crackers. His opinion was that little stood to be gained because of the much higher frequency of fire crackers versus blasting.

Q:\AJM\108

## LIST OF TELEPHONE NUMBERS

**Andy McLeod** - **Pit Superintendent**  
- **691 9003 (H)**  
- **913 3606 (W)**

**Deon du Toit** - **Safety Officer**  
- **082 4401 360 (Cell)**  
- **925327 (H)**  
- **913 3631 (W)**

In normal circumstances contact the above.

If not available contact the following:

**Navigation Reception** - **656 9000**

### **To be contacted in emergency only:**

**Tony Johnson** - **Manager (Mining)**  
- **913 3602 (W)**  
- **656 5962 (H)**

**John Wallington** - **Mine Manager**  
- **913 3122 or 913 3180 (W)**  
- **656 5156 (H)**



**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**MINUTES OF MEETING HELD WITH SCHOONGEZICHT RESIDENTS COMMITTEE ON TUESDAY, 8TH APRIL 1997 AT 19:00**

**PRESENT :** ANDY McLEOD, SACE  
DEON DU TOIT, SACE  
MARIE DYSON, SRC  
RONNIE KOCH, SRC  
JEFF BOWMAN, SRC

**APOLOGIES :** CHRIS TROMPETTER, SRC  
GAVIN RYAN, SRC  
TREVOR VD BERG, SRC  
LUCKY SIBANDE, SRC  
ISRAEL LOUW, SRC

**1. Amendments to previous minutes**

None.

**2. Security**

Details were given of fences, trenches and signage to be installed. SRC agreed to table a procedure to be followed if children are found within the property at the next meeting. The mine agreed to keep records of children escorted off the property and to report their names back to the SRC on a monthly basis.

**3. Employment**

Persons can apply for apprenticeship at any time, other posts can only be applied for if vacancies exist. Not many application forms have been received, some applicants have been asked to come for tests and have not turned up.

**4. Blast Test Results**

The final report has been submitted to the Department of Mineral and Energy Affairs, a copy will be sent out with these minutes.

The preliminary report was given to Trevor vd Berg with the minutes of March's meeting.

**5. House Survey**

D Henderson is busy completing the last few houses and re-doing some houses.

Three vibration monitoring stations have been constructed, their positions were shown on a plan.

6. Dust

Concern was expressed about the creation of dust and the site of the main crusher. Crusher site and main haul routes were shown. Consideration has been given to this aspect whilst choosing sites and routes. Two twin directional sampling points have been selected, three uni-directional sampling points will also be installed.

7. Presentations

A school visit was held on 25th March, it was well worthwhile. A presentation will be held for all-comers at a suitable venue, a date to be set.

8. The requests for assistance to fix tennis courts and soccer fields were investigated. The tennis courts are grossly underused, littered and overgrown. If SACE does assist the community, it will only be beneficial if this is backed up by community input. It was agreed to begin with basics, such as refuse bins. Three refuse bins will be installed to start the ball rolling.

A cache of five extinguishers will also be installed at the school, as it has been noticed that emergency services at the school are severely depleted.

9. Bursaries

Details will be forwarded as soon as they are available.

The next meeting will be held on Tuesday, 6th May 1997 at 19:00 in the Navigation Boardroom.

Telephone number: Jeff Bowman - 083 727 5950

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**Directors:**

D Rankin (Chairman) J P Bloemsa I W Boyd (British) H N Dreyer  
E Ford (British) D Haselau J S Leslie A Martin (British)  
A E Redman (British) H R Reid H B Stacey C Sutherland  
R R L G Whittaker R S Wicks (British)

**AJMcL/mmw**

**25th March 1997**

**Mrs Fiona Hodgson  
Land Survey Negotiator  
Distribution Engineering  
ESKOM  
P O Box 223  
WITBANK  
1035**

**Dear Madam**

**SCHOONGEZICHT NO 2 SEAM MINI-PIT MINE**

**As a result of good prevailing economic conditions and the depletion of the current 4 seam mini-pit, Landau Colliery is planning to re-open the 2 seam mini-pit mine during May 1997.**

**The attached locality plans indicate the locality of the mini-pit which is situated south of the Pretoria-Witbank N4 highway and has the Pretoria/Komatipoort railway line on its eastern boundary.**

**Permission is hereby requested by Landau Colliery to:**

- a) Carry out mining operations, including blasting, within 100m from the Old Douglas 21 kV powerline.**
- b) Carry out mining operations within 100m of the 132 kV Eskom Park, Witbank / Transalloys powerline and to carry out blasting operations within 500m from the same aforementioned line.**

**A summary of the mining operation is detailed below.**

**The mini-pit operation will involve the opencast mining of the coal in consecutive cuts, 30 to 40 meters in width as per the orientation indicated on the plan. No more than two cuts will be operated at any one time and the largest duration for any one cut to be exposed is six months. The sequence of mining operations can be summarised as follows:**

- removal of topsoil and soft overburden**
- blasting of the overburden material**
- removal of overburden**
- blasting of the coal (2 seam)**

- removal of the coal
- blasting of parting
- removal of parting
- blasting of coal (1 seam)
- removal of coal (1 seam)
- replacing of the overburden
- rehabilitation

With respect to the following

a) Old Douglas 21 kV powerline

A detailed plan of the portion of the mini-pit within 100m of the aforementioned powerline is attached, along with a cross-section, the position of which is indicated on the plan.

Mining shall proceed to within 10m of the servitude, and effective distance of 21m from the powerline. The cross-section provided illustrates the following:

- i) Existing ground level.
- ii) Mining horizons and levels during operation.
- iii) Post mining ground level.

As the minimum distance at any one time to the powerline will be 21m, the integrity of the aforementioned powerline will remain intact.

When blasting within 100m of the aforementioned powerline, the following precautions will be adhered to:

- A blasting schedule will be submitted to Eskom's area representative at the beginning of each month.
- Peak Particle Velocity (PPV) will be kept below 75 mm/s at the powerline.
- Seismic devices will be installed in the vicinity and the readings from them extrapolated in order to ensure that the aforementioned precaution is adhered to.
- Fly rock and air blast will be controlled by means of correct sequencing, stemming and the exclusive use of Nonel (noiseless) trunk lines. To this end independent Blasting Consultants will advise Landau Colliery on this matter to ensure compliance.

It is anticipated that the material in this area is weathered to a greater extent than elsewhere in the pit and where the rock can be removed without blasting (i.e. ripping) it will be done so. However this will only be determined once operations have commenced.

b) Eskom Park, Witbank / Transalloys 132 kV powerline

A detailed plan of the portion mini-pit within 100m of the aforementioned powerline is attached.

Cognisance of the existence of a servitude 31m wide and 21m to the north of the centre line of the existing powerline is acknowledged, and is reflected on the plan.

As the minimum distance from which blasting is anticipated to take place from the aforementioned power line is in excess of 200m, normal blasting precautions will be observed. These are the same as are applicable to the Old Douglas 21 kV line, except that a monthly schedule would not be submitted.

If at a later date blasting operations advanced to within 100m of the aforementioned powerline, the same precautions as are applicable to the Old Douglas 21 kV powerline will be implemented.

Notwithstanding the aforementioned precautions, the following shall apply:

1. It is acknowledged that Eskom reserve the right to withdraw its consent if blasting becomes hazardous or likely to result in power interruptions.
2. Landau Colliery, South African Coal Estates, is the registered owner of the property, Schoongezicht 308 JS, over which the Eskom servitude is registered.
3. No mechanical equipment, including mechanical excavators and high lifting machinery, may be used within Eskom's servitude area, or within close proximity of Eskom's services and equipment, without prior permission in writing and supervision of Eskom's authorised area representative. Permission must be obtained at least 10 (TEN) days prior to the commencement of any work within the servitude area.
4. No mining activities may be executed closer than 10 metres from any of Eskom's power line structures or stay wires. Excavation must be carried out at a minimum angle of 30° from the vertical.
5. Statutory ground and/or structure to conductor clearances are to be maintained at all times.
6. The Mine accepts costs if:
  - Eskom towers subside or are damaged as a result of mining activities.
  - Eskom has to incur any costs to comply with statutory requirements because of the Mine's works or the presence of the Mine's equipment or plant in the servitude area. Such proven costs shall be refunded on demand.

7. Eskom's rights, services and equipment must be acknowledged at all times and may not be interfered or tampered with.
8. Eskom shall not be liable for the death of, or injury to any person or for the loss of, or damage to any property caused in whatsoever manner by the Mine, its employees, agents or contractors.
9. Eskom shall at all times have unobstructed access to and egress from its servitude area and power line structures.

Yours faithfully

**A C JOHNSON**  
**MANAGER (MINING)**

**AJMcL/mmw/26/03/97**  
**Q:\AJM\97**

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**  
**SOUTH AFRICAN COAL ESTATES DIVISION**  
**LANDAU COLLIERY**

**MINUTES OF MEETING HELD WITH WITBANK TOWN COUNCIL TOWN CLERK ON**  
**4TH OCTOBER 1996 AT 14:30.**

Present: J Luus - Town Clerk (Acting)  
P Stone - Town Engineer (Acting)  
J Jacobs - Town Secretary  
A C Johnson - Assistant Mine Manager, Landau  
A McLeod - Pit Superintendent, Mini-Pit  
M Rutherford - Senior Divisional Mining Engineer.  
H Niewhoudt - AAC Mining Titles.

Apologies: M T Brett - Consulting Mining Engineer, Amcoal

A letter was presented to the Town Clerk notifying the Town Council of the intention, by Landau Colliery, to re-open the Schoongezicht 2 seam mini-pit.

A general plan showing the location of the site was tabled and explained, showing existing voids, dumps and proposed mining layout.

The need for residential areas on which to build was reported to the mine as being quite urgent by Witbank Town Council and they expressed their satisfaction that land would be made available within 3 to 4 years.

The town council's main concern was that the area be rehabilitated to a satisfactory standard.

The following points, which are covered by the Minerals Act, under which the Colliery is governed, were outlined. They also form the bulk of the Environmental Management Programme Report (EMPR):

1. A soil survey has previously been done. More work will be done ahead of mining and also of the area that has been profiled.
2. A fauna & flora survey will be commissioned.
3. A pre-mining dust survey will be carried out and dust will be minimised and monitored during mining operations.

Assistance was requested in approaching the residents of Schoongezicht so that various tests and surveys could be done prior and during mining.

2/...

4. Ground & air vibration limits will be established by Amcoal's drill & blast consultant Dr W A Crosby. Monitoring points would have to be established in the Schoongezicht township in order to do this.
5. A pre-mining housing structural defect survey will be carried out on some of the 70% private houses and 30% council houses in the Schoongezicht township. A pre-mining photographic record of all houses and structures surrounding the mining area will be done. This will be to ascertain the validity of any claims and to assist in determining the level of compensation if deemed necessary.  
  
Assistance in the best manner to approach the residents was requested.
6. Surface and ground water studies will be carried out by Wates, Meiring & Bernard, who will recommend the position of monitoring points.
7. The Witbank Town Council was requested to inform Landau Colliery, who the Town Council consider to be interested and affected parties.

The Town Clerk replied that the notification letter, a copy of the minutes of the meeting and the plan tabled would be sufficient to notify the Town Councillor, who would notify the residents. Schoongezicht consists of 1 ward, but Kwa-Guqa ward may also be affected. Various committees and residents associations would also be notified. Likely venue for a public meeting would be the Community Hall, Kwa-Guqa or Council Chambers in Witbank or Kwa-Guqa.

The matter will be passed on to a meeting of the Executive Committee on 23rd October and then to a meeting of the full Council on 29th October.

A reply would be forthcoming to Landau Colliery in early November.

The Department of Mineral & Energy Affairs and the Department of Water Affairs & Forestry, will also be advised in writing that the mining of the mini-pit will commence.

The proposed plan for submitting the EMPR is as follows:

A meeting with these two departments will be held to brief them of the proposed plan for submitting the EMPR.

Due to the shortage of time to complete all the necessary environmental investigations a EMP Commitment Report will be submitted prior to mining activity commencing. This report will commit to all the necessary EMP requirements and will undertake to submit the full EMPR by 31 July 1997.

3/...



The aforementioned meeting of interest and affected parties will be held prior to any mining activity commencing and also prior to submission of the EMP Commitment Report.

The WTC will be supplied full copies of both the EMP Commitment Report and the final EMPR. Additional copies will be provided for representatives of the Schoongezicht township.

**A McLEOD**  
**MINI-PIT SUPERINTENDENT**

cc J N Wallington

AMcL\01\ct  
9 October 1996

**AMCOAL COLLIERY AND INDUSTRIAL OPERATIONS LIMITED**

**SOUTH AFRICAN COAL ESTATES DIVISION**

**LANDAU COLLIERY**

**NOTE FOR THE RECORD**

**DATE : 29 April 1997**

To date, the following meetings have been held with residents in the vicinity of the proposed Schoongezicht 4 seam mini-pit area.

<b>DATE</b>	<b>TIME</b>	<b>VENUE</b>	<b>ATTENDANCE</b>	<b>COMMENTS</b>
05.11.96	18:00	Lynville Hall	2	Not attended by residents
07.11.96	18:00	Witbank Prim	± 50	Residents decided to elect committee
20.11.96	19:00	Navigation Boardroom	7	1st meeting with Schoongezicht Resident Council
03.12.96	19:00	Navigation	10	Bauer & Crosby gave demonstration
07.01.97	19:00	Navigation	11	
04.02.97	19:00	Navigation		Meeting cancelled at S R C request
04.03.97	19:00	Navigation	8	
08.04.97	19:00	Navigation	5	

A visit by 50 Std. 6 pupils of Witbank Primêre Skool was held on Tuesday 25th March 1997.

cc

A C Johnson



DEPARTEMENT VAN WATERWESE EN BOSBOU  
DEPARTMENT OF WATER AFFAIRS  
AND FORESTRY



TRANSVAALSTREEK: WATERGEHALTE BESTUUR  
TRANSVAAL REGION: WATER QUALITY MANAGEMENT

Privaatsak/Private Bag X7420  
HENNOPSMEER  
0046

Fax no.: 0135 656 9016

Enquiries: B. Postma  
Tel. no.: 012-672 2203  
Fax no.: 012-672 2936  
Reference: 16/2/7/B100/C12

TO: The Mine Manager : Landau Colliery  
ATTENTION: Mr. A.C. Johnson  
DATE: 25 / 04 / 1997  
NUMBER OF PAGES: 1 + 3

Mr. A. Johnson

Please find enclosed the letter to the Department of Minerals and Energy, regarding the Schoongezicht 2 seam mini-pit, as requested by Angus Nicoll.

Please contact this office, if we can be of any further help.

Kind regards

Mrs. B. Postma



DEPARTMENT OF WATER AFFAIRS AND FORESTRY  
 DEPARTEMENT VAN WATERWESE EN BOSBOU  
 LEFAPHA LA MERERO YA METSI LE DIKGWA  
 UMNANGO WEZA MANZI NAMA HLATHI



RESIDENSIE BUILDING, 185 SCHOEMAN STREET, REPUBLIC OF SOUTH AFRICA

Fax: (012) 326-1780  
 (012) 323-4472  
 E-mail:

Private Bag X 313  
 Pretoria  
 0001

Enquiries: Mrs B. Postma  
 (012) 672-2203  
 Reference: 16/2/7/B100/C12

1997 -04- 2 2

Regional Director  
 Department of Minerals and Energy  
 Private Bag X7279  
 WITBANK  
 1035

ATTENTION: MR D. VAN DER MERWE

APPLICATION FOR MINING AUTHORIZATION IN TERMS OF SECTION 39(4) OF THE  
 MINERAL ACT, 1991 (ACT 50 OF 1991) TO RE-OPEN THE SCHOONGEZICHT 2 SEAM MINI  
 PIT

Your facsimile dated 18 March 1997, has reference.

This Department has no objections to the mining of the Schoongezicht 2 seam mini pit at Landau Colliery, if they comply with the following conditions:

1. The Water Act, 1956 (Act 54 of 1956) and the regulations in Notice R287 in the Government Gazette of 20 February 1976.
2. All sections and regulations of the Environmental Act, 1989 (Act 73 of 1989) as far as the dumping of solid waste is concern.
3. All conditions as proposed in the preliminary EMPR for the Schoongezicht 2 seam mini pit, dated February 1997, and the surface and ground water aspects of the environmental management program for the proposed Schoongezicht 2 seam mini pit, report 3591/1471/W dated March 1997. This Department should be notified of any deviations from proposed conditions in these document.
4. A detailed EMPR must be submitted by July 1997. This EMPR should be in the format of the Aide memoire and must address the following short comings of the preliminary EMPR:
  - 4.1 The ground water emanating from the mini pit during operation and the decant point in the north-west corner of the pit after closure of the mine, must be dealt with to the satisfaction of this Department. Full details of the recommendations must be included in the detailed EMPR.

- 4.2 The sub-catchment occupied by the mine must be indicated on a suitably scaled map indicating the location of the mini pit in relation to the Schoongezicht and the Township Spruit.
- 4.3 The normal dry weather flow in the Schoongezicht- and Township Spruit must be indicated.
- 4.4 The numbering of monitoring points indicated on maps, described in tables and mentioned in the relevant sections of the document must correspond.
- 4.5 Description of the drainage density of the sub-catchment must be included.
- 4.6 Surface water use, up to the receiving water body, must be described in sufficient detail, in terms of the type of surface water use, the impact on surface water users and the appropriate amelioration measures that should be taken, under the relevant sections of the EMPR.
- 4.7 Ground water qualities from the relevant boreholes must be sampled for chemical analysis and the analyses summarized in the document for background quality information (See section 3.3.3 of report 3591/1471/1W).
- 4.8 More detail regarding the flows, water levels and the hydraulic gradient between the neighbouring mine workings (especially the old Witbank South workings) and the mini pit should be included.
- 4.9 The affected zone (3.3.6 report 3591/1471/1W) should be described in more detail.
- 4.10 Detail designs of storm water control measures must be included in the EMPR.
- 4.11 The water balance should be upgraded to indicate all sources of water entering the mining area and it must distinguish between clean- and dirty water systems. Representative values must be used for evaporation for the different average scenarios used, taking into account that netto evaporation during dry- and wet cycles will differ.
- 4.12 It is un-acceptable to this Department that polluted water decanting from the pit into the subsurface and surface, which will report to the Brugspruit, cause further deterioration in the water quality of the Brugspruit. This should be addressed in detail in the relevant updated EMPR sections.

5. Since the 2 seam mini pit might be in operation before negotiations between Department of Water Affairs and Forestry and South African Coal Estates to obtain the relevant permit to release make up water from Kleinkopje Colliery, is finalized, the Landau Colliery water system must have sufficient capacity to store and re-use affected water from the 2 seam mini pit. (See 5.1.5 in report 3591/1471/1W).
6. All water management measures must be in place before the disturbance of any carbonaceous materials commence.
7. This letter is not a permission to release the excess pit water during flood events, if it complies to the interim water quality guidelines for the Klipspruit Catchment (See 5.1.2 of report on 3591/1471/1W). A separate permit application in terms of section 12B must be submitted to this Department in this regard.
8. Surface water monitoring and reporting to Department of Water Affairs and Forestry should be done on a monthly basis for the following variables: pH, alkalinity, calcium, magnesium, sodium, potassium, sulphate, chloride, fluoride, aluminium (dissolved), iron (dissolved) and manganese (dissolved), at monitoring points WP 27, WP 26 and WP 25 (Figure 3.2(a), report 3591/1471/1W) as well as the water quality and flow of the water pumped from the mini pit to the Schoongezicht polluted water dam.
9. Ground water monitoring and reporting to Department of Water Affairs and Forestry for the same water quality variables as the surface water monitoring system should be done on a quarterly basis for boreholes EMP01 - EMP06 (figure 3.3.2, report 3591/1471/1W). Boreholes should be installed around the mini pit to monitor ground water levels and quality. The location of these boreholes should be indicated on a map and supplied to Department of Water Affairs and Forestry.

Please contact this Department, if we can be of any further help.

Yours faithfully



PP REGIONAL DIRECTOR

mdt/bp214



# SPOORNET

Mine Manager  
Amcoal  
P O Box 78  
CLEWER  
1036

Verwysing  
Reference

S.PTA/W 1076/4/1

Telefoon (012)315-2336 Faks  
Telephone (012)315-2336 Fax

(012)315-3214

Datum 1997-04-25  
Date

Dear Sir

## SCHOONGEZICHT MINI-PIT MINE

Your letter AJ McL/MMW of 25 March 1997 refers.

Your request to carry out mining operations within 100 metre of the Pretoria/Komatipoort railway line is approved provided that the proposed procedures of mining are not altered without prior notification.

In principle there is no objection to blasting within 500 metres of Spoornet property provided that blasting procedures as indicated below are complied with :

(a) When blasting is to be done between 500 m and 100m from a railway line, charging of holes, coupling up of detonating fuse and the insertion of detonating relays may be done at any time, but laying out of blasting cables which must be well insulated, and the insertion of electric detonators may be performed only under conditions of total occupation of the track, except when detonators incorporating protection against stray currents are used. Detonation may then be performed between trains.

(b) When blasting is to be done less than 100m from a railway line the operations described in (a) may be performed while a train is within the area under protection, providing the same type of detonators as described in (a) together with a non-electric system such as capped fuse or "Nonel" detonators are used. Alternatively a Magnadet Type detonator may be used. If only non-protected electric detonators are available these may not be brought closer than 100m to an electrified line, except during total occupation. A non-electric lead-in line such as "Nonel" or detonating fuse can be used to enable these non-protected detonators to be used.

Detonation must be performed under total occupation.

RECEIVED

LANDAU COLLIERY  
S.A. COAL RESOURCES  
607-09-15

SPOORNET  
in Divisie Van Transnet Beperk  
Registrasienommer 90/00900/06

A division of Transnet Limited  
Registration number 90/00900/06

Privaatsak X637  
Pretoria  
Suid-Afrika  
0001

NZASM-gebou  
h/v Paul Kruger- en Minnaarstraat  
Pretoria  
0002

Private Bag X637  
Pretoria  
South Africa  
0001

NZASM Building  
Cor Paul Kruger and Minnaar Streets  
Pretoria  
0002

Direkteure Prof Louise A Tager (Voorsitter/Chairman) S J Macozoma\* (Besturend/Managing) D E Cooper Dr P Gorralla  
Directors G N Hetisani M E N Magomola M E Mkwazazi\* J M Ndhlela\* Z Nomvete\* G T Serobe\* Dr C B Strauss  
G S van Niekerk W M Vorster  
\*Uitvoerend/Executive

- (c) Within 10 metres from an electrified railway line blasting must be restricted to periods when a work permit can be arranged. If this is done the blaster must sign the work permit before and after each blast, but blasting may nevertheless be performed as described in (b), provided that recommendation by the supplier of the explosives or by an explosives engineer can be shown.
- (d) An application for each individual blast is to be submitted to the Senior Engineer, (Perway), Koedoespoort, P O Box 912756, Silverton, 0127, telephone (012) 842-5700 in writing as least 14 days prior to the date on which blasting is to take place or any other time of notification required by him.
- (e) The Senior Engineer will give permission to blast once total track occupation has been granted and attendance by all departments involved has been arranged.
- (f) All costs for supervision and protection by Spoornet is to be paid in advance of work to be carried out.
- (g) Labour is to be provided to clear the track.
- (h) Notwithstanding the above-mentioned you must comply with clause 15 of Spoornet Specification E7/2 (1991) (copy attached) and Explosives Regulations 10.17.1 to 10.17.4.

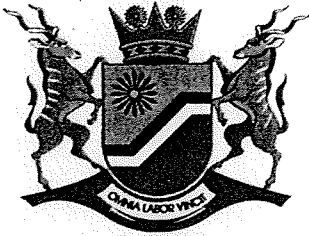
Kind regards



W J ESTERHUYSE  
SENIOR ENGINEER

A4JOHAN/cmk





# MPUMALANGA GOVERNMENT

PUBLIC WORKS, ROADS AND TRANSPORT  
TAK PAAIE / ROADS BRANCH

Navrae/Enq.: Mr. G. Van Staden  
Verw./ Ref. No.: 10/4/2/16

Datum/Date: 24 April 1997

The Manager  
Landau Colliery  
SCHOONGEZICT  
2 Seam Mine-Pit

Sir

## APPROVAL NUMBER: F15/PV02.

**APPLICATION FOR OPENCAST MINING WITHIN 100 METRES FROM PROVINCIAL ROAD P 154-2 AND BLASTING WITHIN 500 METRES FROM PROVINCIAL ROAD P154-2: DISTRICT OF WITBANK (ROADS SUPERINTENDENT DELMAS).**

1. With reference to your letter dated AJMcL/mmw dated 25 March 1997 in connection with the above-mentioned, I wish to inform you that your application has been approved.
2. Approval is given for the mining of an opencast mine at a distance of not less than 45 metre from the centre line of Road P154-2.
3. Permission for blasting within 500 metre from the centre line of provincial road P154-2 is also granted, subject to the following conditions:
  - 3.1 The Roads Superintendent, Delmas, Private bag X 011, Delmas, 2210, telephone 0157-55095, must be advised at least three days before blasting commences.
  - 3.2 Should blasting take place on a regular basis, a time table must be submitted to the Roads Superintendent. You will be limited to one period of blasting per day.
  - 3.3 Traffic may not be stopped for more than 5 minutes. Should the road be blocked due to blasting debris, it must be cleared as quickly as possible.
  - 3.4 The necessary and required road signs for your operations must comply with the South African Road Traffic Signs Manual. The signs must be provided and displayed by you when traffic is stopped. The signs must be portable and may only be displayed when traffic is stopped, and must be removed as soon as traffic is able to move again.
  - 3.5 Sign TW343 (Stop/Go Control Ahead) must be displayed 240 metre ahead of the point where traffic is stopped. At the stop point signs R1.5A and B (Stop and Ry-Go signs) must be displayed, and be manned by a flagman.
  - 3.6 The points where traffic is stopped must have sufficient sight distances and must be approved by the Roads Superintendent.