(NEW CLYDESDALE COLLIERY)

NAME OF APPLICANT:

UNIVERSAL COAL DEVELOPMENT IV (PTY) LTD
REG. NO. 2008/ 028397 /07
467 FEHRSEN STREET
BROOKLYN
PRETORIA
0181

MINING WORKS PROGRAMME
SUBMISSION

SUBMITTED FOR

A MINING RIGHT APPLICATION

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

As Required in Terms of Section 23 (a), (b) and (c)
Read Together with Regulation 11 (1) (g) of the
Mineral and Petroleum Resources Developments Act (Act 28 of 2002)

DATED: 1 SEPTEMBER 2016
FINAL

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List of Terms and Abbreviations

Companies / Departments / Institutions	
Abbreviation	**Full Name**
DMR	Department of Mineral Resources
DWA	Department of Water Affairs
Exxaro	Exxaro Resources Limited
NCC	New Clydesdale Colliery
NCC Project	New Clydesdale Colliery Project
RBCT	Richards Bay Coal Terminal
UCDIV	Universal Coal Development IV (Pty) Ltd
UCDVIII	Universal Coal Development VIII (Pty) Ltd
UCEHSA	Universal Coal and Energy Holding South Africa (Pty) Ltd

General Abbreviations	
Abbreviation / Symbol	**Term**
-	Minus
$	US Dollar
%	Percent
~	Approximately
+	Plus
<	Less Than
°C	Degrees Celsius
BCM	Bank Cubic Metres
BFS	Bankable Feasibility Study
CHPP	Coal Handling and Processing Plant
CM	Continuous Miners
CPR	Competent Persons Report
CV	Calorific Value
DMC	Dense Medium Cyclone
EIA	Environmental Impact Assessment
EMP	Environmental Management Programme
EPCM	Engineering, Procurement and Construction Management
FC	Fixed Carbon
FEL	Front End Loader
FOT	Free on Truck
GJ	Gigajoule
GTIS	Gross Tonnes In Situ
ha	Hectares

General Abbreviations	
Abbreviation / Symbol	**Term**
HGI	Hardgrove Grindability Index
HR	Human Resources
HRD	Human Resource Development
IDP	Integrated Development Plan
IM	Inherent Moisture
IRR	Internal Rate of Return
IWULA	Integrated Water Use Licence Application
km	Kilometres
kV	Kilovolts
kVA	Kilovolt Amperes
kW	Kilowatt
LED	Local Economic Development
LOM	Life of Mine
m	Metres
m/s	Metres per Second
m^3	Cubic Metres
masl	Metres Above Sea Level
MHSA	Mine Health and Safety Act
MJ/kg	Megajoules per Kilogram
mm	Millimetres
MPRDA	Mineral and Petroleum Resources Development Act
Mt	Million Tonnes
Mtpa	Million Tonnes per Annum

General Abbreviations	
Abbreviation / Symbol	**Term**
MWh	Megawatt Hours
MWP	Mining Works Programme
NPV	Net Present Value
OC	Opencast
OHS	Occupational Health and Safety
PCD	Pollution Control Dam
Phos	Phosphorous
PPE	Personal Protective Equipment
RBCT	Richards Bay Coal Terminal
RD	Relative Density
ROM	Run of Mine
ROMt	Run of Mine Tonnes
SIB	Stay-in-Business
SLP	Social and Labour Plan
tpa	Tonnes per Annum
tph	Tonnes per Hour
tpm	Tonnes per Month
TS	Total Sulphur
TTIS	Total Tonnes In Situ
UG	Underground
V	Volts
VM	Volatile Matter
ZAR	South African Rand

Seam Reference	
Abbreviation	**Seam Name**
S5	5 Seam
S4	4 Seam
S4UA	4 Upper A Seam
S4UA	4 Upper Seam
S4L	4 Lower Seam
S3	3 Seam
S2	2 Seam
S2U	2 Upper Seam
S2L	2 Lower Seam
S2A	2 A Seam
S1	1 Seam
S1A	1 A Seam

Standard Directive

All applicants for Mining Rights are herewith, in terms of the provisions of Section 23 (a), (b) and (c) and in terms of Regulation 11 (1) (g) of the Mineral and Petroleum Resources Development Act (MPRDA), directed to submit a Mining Work Programme (MWP), strictly under the following headings and in the following format. This document is submitted together with the application for a Mining Right.

Objective

This Report is compiled based on the intent to establish an opencast and underground coal mining operation, consisting of two resources areas, namely Roodekop and New Clydesdale Colliery (NCC). The collective project will be referred to as the New Clydesdale Colliery Project (NCC Project), located approximately (~) 120 kilometres (km) east of Johannesburg, 30 km south of eMalahleni (Witbank), and ~ 9 km north of Kriel, in the Mpumalanga Province. The Project Area is situated within the eMalahleni Local Municipality and the Nkangala Magisterial District.

1. Regulation 11 (1) (a)
Full Particulars of the Applicant

Universal Coal and Energy Holding South Africa (Pty) Ltd (UCEHSA) forms part of Universal Coal plc, which is an Australian Securities Exchange-listed company.

The Roodekop resource is owned by Universal Coal Development IV (Pty) Ltd (UCDIV), which is a subsidiary of UCHESA. The New Clydesdale Colliery (NCC) resource was bought from Exxaro Resources Limited (Exxaro). An offer to purchase NCC has been made by UCEHSA through its subsidiary Universal Coal Development VIII (Pty) Ltd (UCDVIII). Following extensive consultation with the unions and employees of NCC, a successful Section 189 process was concluded in terms of the Labour Relations Act. NCC employed 371 staff, of which 296 have been redeployed within the Exxaro group and 40 were retrenched or retired. Exxaro placed the mine on care and maintenance prior to the Section 11. UCDVIII has kept the mine on care and maintenance subsequent to the Section 11 and will continue the care and maintenance until the production commences.

The New Clydesdale Colliery Project (NCC Project), which is the subject of this Mining Works Programme (MWP), comprises of the combination of the Roodekop and NCC resources.

UCEHSA's management are evaluating a strategic transaction to merge UCDIV and UCDVIII into one legal entity, which also necessitates the procedures of adherence to Section 102 of the Mineral and Petroleum Resources Development Act (MPRDA) to combine the current two Mining Rights into one Mining Right. The two independent Mining Rights are:

- NCC:
  - MP30/5/1/2/2/148MR
  - Measuring 4,125.4 hectares (ha) in extent
  - Held by UCDVIII
- Roodekop:
  - MP30/5/1/2/2/492MR
  - Measuring 835.4 ha in extent
  - Held by UCDIV

The consent letter from the Department of Mineral Resources (DMR) in terms of Section 11 of the MPRDA (Act 28 of 2002) for the transfer of the Mining Right (MP 30/5/1/2/2/148MR) from Eyesizwe Coal (Pty) Ltd to Mainstreet 1201 (Pty) Ltd (to be renamed UCDVIII) is included as Annexure 1. Eyesizwe Coal is now known as Exxaro Coal Mpumalanga (Pty) Ltd). UCDVIII will merge into UCDIV.

The particulars of the applicant, its designated contact person together with contact details, are indicated in Table 1-1 below.

Table 1-1: Applicant Particulars

Item	Company Contact Details
Company Name	Universal Coal Development IV (Pty) Ltd
Company Registration Number	2008 / 028397 / 07
Telephone Number	+27 12 460 0805
Contact Person	Minah Moabi
Contact Person Mobile Number	+27 76 431 3968
Email Address	m.moabi@universalcoal.com
Postal Address	PO Box 2423
	Brooklyn Square
	Pretoria
	0075
Physical Address	467 Fehrsen Street, Cnr Muckleneuk
	Brooklyn
	Pretoria
	0181

The applicant was assisted in the preparation of this MWP by the company whose details are listed in Table 1-2 below.

Table 1-2: Mining Consultant Particulars

Item	Company Contact Details
Company Name	Mindset Mining Consultants (Pty) Ltd
Telephone Number	+27 12 347 3152
Contact Person	Ronnie van Eeden
Contact Person Mobile Number	+27 82 893 9476
Email Address	ronnie@mindsetcoal.co.za
Postal Address	Postnet Suite 504
	Private Bag x 1
	The Willows
	0041
	Gauteng

The company's registration documentation is included as Annexure 2. The certified copy of the certificate to commence business is included as Annexure 3.

The share certificates for the company are included as Annexure 4, while the Shareholder Agreement is included as Annexure 5.

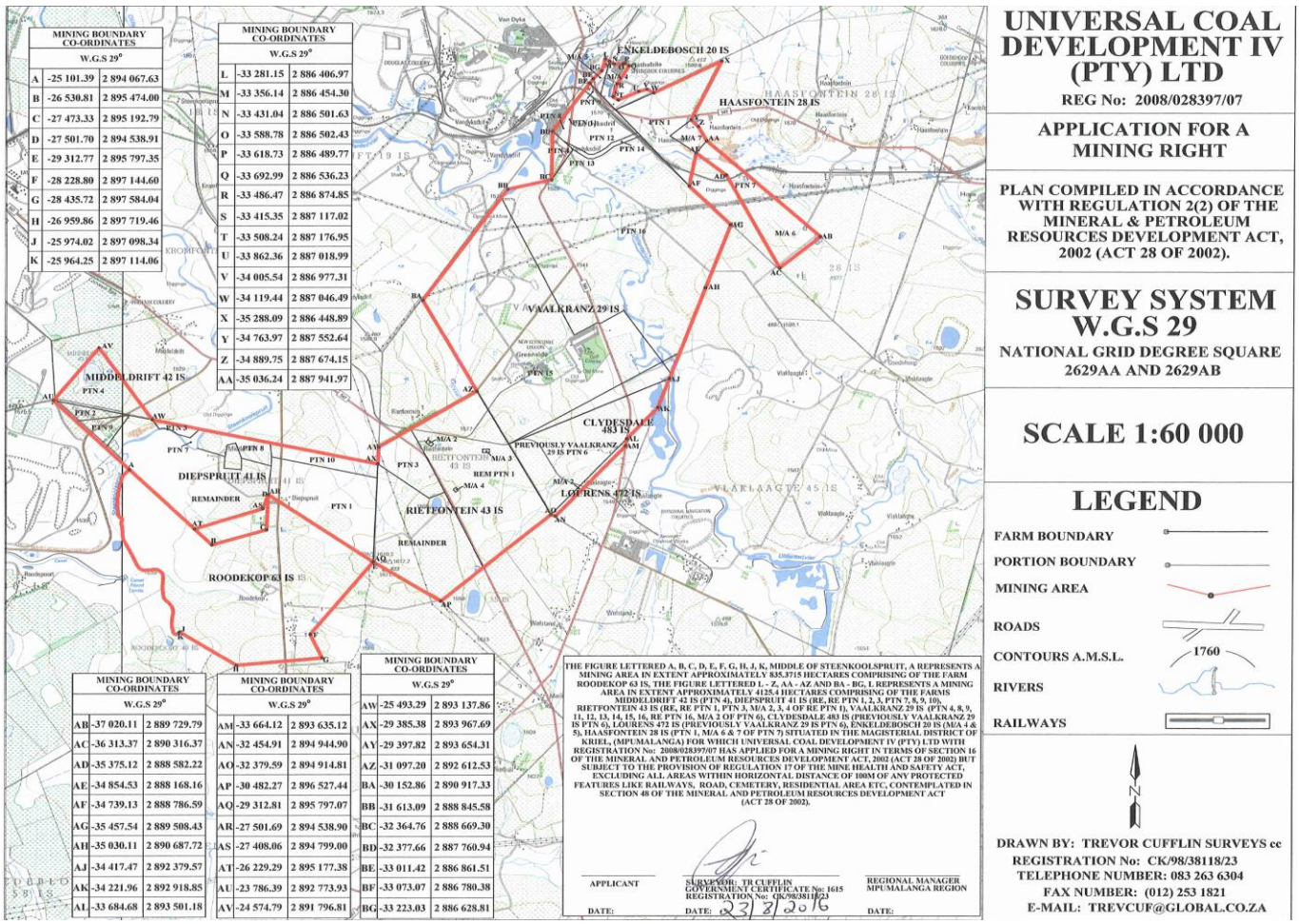
A certified copy of the Articles and Memorandum of Association of the Company is attached as Annexure 6.

The company's Black Economic Empowerment Certification is included as Annexure 7.

2. Regulation 11 (1) (b)

Plan Showing the Land and Mining Area to which the Application Relates (Plan Required in terms of Regulation 2 (2))

Map 2-1: Regulation 2 (2) Plan



The Regulation 2 (2) plan as indicated in Map 2-1 above is also included as Annexure 8.

Table 2-1: Regulation 2 (2) Drawing Specifications

Specification	Details
Coordinates	Clarke 1880 (modified) LO 29° East and WGS 84 Hartebeesthoek 94 WG 29° East, provided in Table 3-1 on page 22 and is included in the Regulation 2 (2) plan
North Point	Top Left of the plan
Scale	1 : 60,000
Location and Land Details	The NCC Project is located ~ 120 km east of Johannesburg, 30 km south of eMalahleni, and ~ 9 km north of Kriel, in the Mpumalanga Province. The Project Area is situated within the eMalahleni Local Municipality and the Nkangala magisterial district. The Project Area Farms are indicated in Table 2-2 on page 16

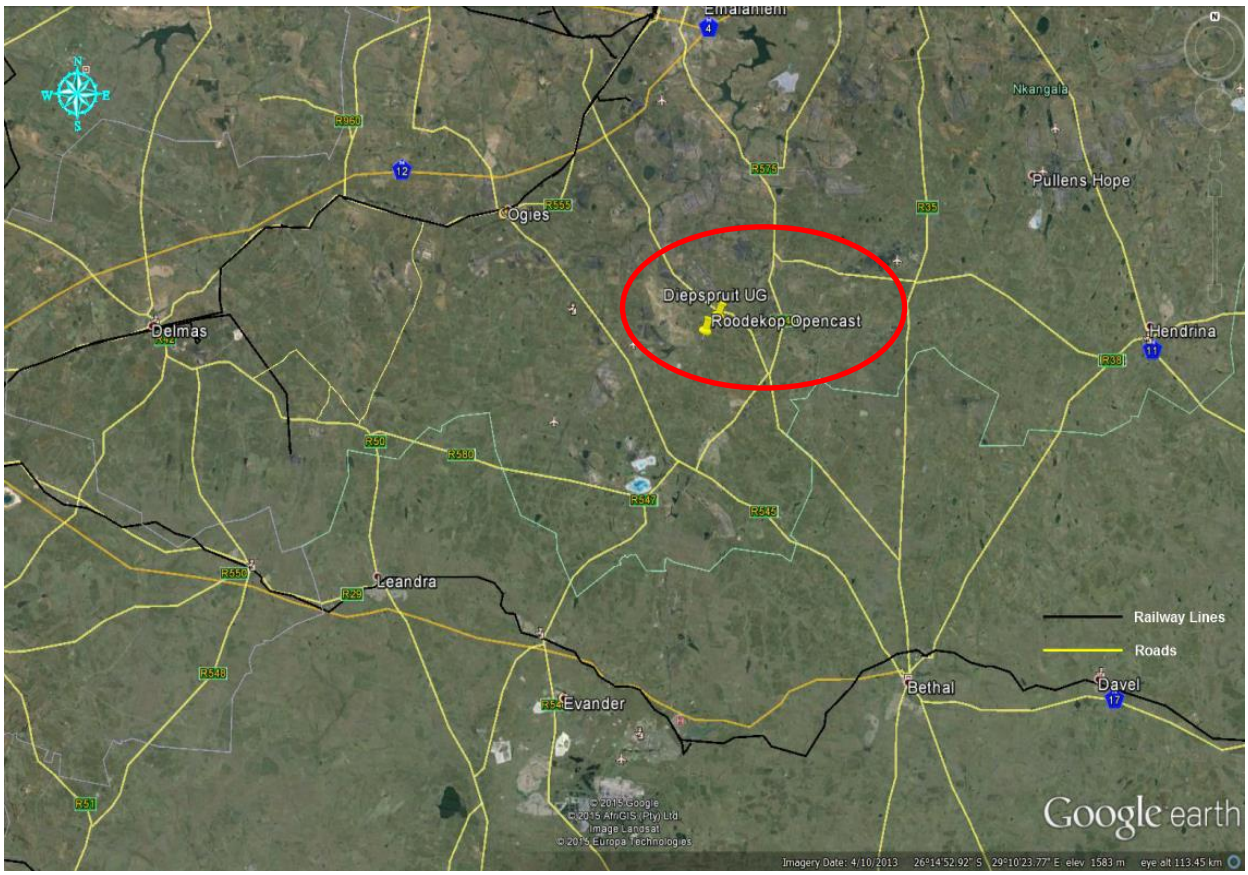
Specification	Details
Extent of Land	4,960.8 ha
Boundaries	The Project is located centrally on the southern boundary of the Witbank Coalfield. The NCC Project mining areas are contiguous and lie to the south of the R547 road. The existing NCC washing plant, which forms part of the Project, lies north of the R547 road and is 8.25 km by road, northeast of the two mining areas. The Steenkoolspruit flows in a northerly direction and hugs the north-western boundary of the Project site.
Surface Structures	Offices, stores facility, workshops, change house, and lamp room already exists on the NCC portion of the Project.
Registered Servitudes	Vaalkranz 29 IS Portion 16 – Total Coal Rail Loop
Topography	The topography of the site is undulating in nature that is representative of the entire region. The Project site is located in and around a valley that runs in a north-westerly direction through the middle of the Project area. Elevation on site is highest along the north-eastern corner at 1,608 metres above sea level (masl) and the lowest point being located on the western boundary of the site at 1,525 masl.
Locality Plan	A map indication the general location of the NCC Project is indicated in Map 2-2 on page 17.
Signed and Dated	Signed-off by Eugene Pretorius & Associates (Pty) Ltd 07 September 2015

Table 2-2: Project Area Farms Details

Farm Name, Number, Subdivision	Area	Owner	Deed	Area (ha)
Middeldrift 42 IS Portion 4	MP	Diepspruit 41 Eiendomme 41 PTY LTD	T36354/2000	197.90
Diepspruit Remaining Extent	MP	Universal Coal	T10179/2008	300.25
Diepspruit 41 IS R/E of Portion 1	MP	Universal Coal	T10179/2008	217.41
Diepspruit 41 IS R/E of Portion 2	MP	Diepspruit 41 Eiendomme PTY LTD	T36354/2000	56.24
Diepspruit 41 IS R/E of Portion 3	MP	Diepspruit 41 Eiendomme PTY LTD	T36354/2000	7.43
Diepspruit 41 IS Portion 7	MP	Universal Coal	T47037/2003	6.85
Diepspruit 41 IS Portion 8	MP	Universal Coal	T47031/2003	42.83
Diepspruit 41 IS Portion 9	MP	Universal Coal	T47032/2003	17.13
Diepspruit 41 IS Portion 10	MP	Universal Coal	T37033/2003	42.83
Rietfontein 43 IS R/E	MP	Universal Coal	T47039/2003	500.97
Rietfontein 43 IS R/E of Portion 1	MP	Vroegbegin Boerdery	T57180/2001	170.90
Rietfontein 43 IS Portion 3	MP	Universal Coal	T47038/2003	78.47
Vaalkranz 29 IS R/E of Portion 15	MP	Universal Coal	T47036/2003	991.36
Vaalkranz 29 IS Portion 4	MP	Mistique Investment CC	T73748/2001	0.00
Vaalkranz 29 IS MA 2 of Portion 6	MP			
Vaalkranz 29 IS Portion 8	MP	Transnet LTD	T8216/1968	0.00
Vaalkranz 29 IS Portion 9	MP	Transnet LTD	T8216/1968	0.00
Vaalkranz 29 IS Portion 11	MP	Transnet LTD	T8216/1968	0.00

Farm Name, Number, Subdivision	Area	Owner	Deed	Area (ha)
Vaalkranz 29 IS Portion 12	MP	Transnet LTD	T8216/1968	0.00
Vaalkranz 29 IS Portion 13	MP	Transnet LTD	T36907/1977	0.00
Vaalkranz 29 IS Portion 14	MP	Transnet LTD	T36907/1977	0.00
Vaalkranz 29 IS Portion 16	MP	Universal Coal	T47036/2003	955.71
Clydesdale 483 IS	MP	Universal Coal	T47034/2003	183.62
Lourens 472 IS	MP	Dorstfontein Coal Mines PTY LTD	T3712/2010	310.95
Enkeldebosch 20 IS M/A 4 and M/A 5	MP	Anglo Operations LTD		
Haasfontein 28 IS R/E of Portion 1	MP	Universal Coal	T39160/2002	149.53
Haasfontein 28 IS R/E of Portion 7	MP	Universal Coal	T47035/2003	148.72
Haasfontein 28 IS Portion 19	MP	Universal Coal	T1473/2010	87.22
Roodekop 63 IS Portion 1	MP	Universal Coal	T129043/2002	555.04
Roodekop 63 IS Remaining Extent	MP	Emalahleni Local Municipality	T893/2015	280.33

Map 2-2: Project General Locality



The locality of the NCC Project is indicated in Map 2-2 above.

The Project is located centrally on the southern boundary of the Witbank Coalfield. The Witbank Coalfield is one of the most important coalfields in South Africa, supplying more than 50 percent (%) of South Africa's saleable coal.

The Project area is located 30 km south of the town of eMalahleni. It is situated close to the R547 provincial road. The NCC Project mining areas are contiguous and lie to the south of the R547 road. The existing NCC washing plant, which forms part of the Project, lies north of the R547 road and is 8.25 km by road, northeast of the two mining areas. The washing plant site is connected to the main Richards Bay Coal Terminal (RBCT) railway line by a short railway spur. The Project is linked to excellent road and railway infrastructure.

Historic mining activities at NCC include opencast mining of coal at Vaalkranz East and Haasfontein Phase I, and underground mining at Vaalkranz North and South. Various pollution control dams (PCDs) were constructed to address storm water management around NCC. In addition, a coal washing plant is in operation, processing coal destined for the export and domestic markets. A discard facility has been established on Portion 15 of Vaalkranz 29 IS to store the discard coal separated during the washing plant process and covers an area of approximately 13 ha.

The Roodekop area is currently used for maize planting and some cattle grazing.

The NCC Project area falls under the central Mpumalanga/ Highveld climatic zone, characterised by warm summers with rainfall. The winters tend to be mild to warm during the day but cold at night with sharp frost.

Precipitation occurs in the form of showers and thunderstorms and falls mainly from October to March. Maximum rainfall occurs in November, December, and January. Rainstorms are often violent (up to 242 millimetres (mm) can occur in one day) with severe lightning and strong winds, sometimes accompanied by hail. The winter months are dry with the combined rainfall in June, July, and August making up only 2 % of the average annual total (704 mm).

The average daily maximum temperature in February (the hottest month) is 26.5 degrees Celsius (°C) and in July (the coldest month) is 18.3 °C. The mean daily minimum temperature is 15 °C in February and 4 °C in July, but extremes as low as 3.3 °C have been recorded.

Wind speeds, averaged over a one-hour period, ranged from 0 metres per second (m/s) to 9.8 m/s. The wind speeds fluctuate from season to season with the strongest winds occurring during the months of September to November. The predominant wind directions are from the east and the east-southeast.

The topography of the site is undulating in nature that is representative of the entire region. The Project site is located in and around a valley that runs in a north-westerly direction through the middle of the Project area. Elevation on site is highest along the north-eastern corner at 1,608 masl and the lowest point being located on the western boundary of the site at 1,525 masl.

The valley formation running through the Project area has resulted in a small non-perennial stream and associated valley-bottom wetland system which drains in a north-westerly direction from the

site. The non-perennial stream from the site joins the Steenkoolspruit that flows in a northerly direction and hugs the north-western boundary of the Project site.

The Project area has a gentle gradient for the bulk of the site of between 2.5 % and 3.7 %. However, certain areas of the site have steeper gradients such as the valley incised by the non-perennial stream on the western boundary of the Site where the slope percentages range to a maximum slope of ~ 12 %.

3. Regulation 11 (1) (c)

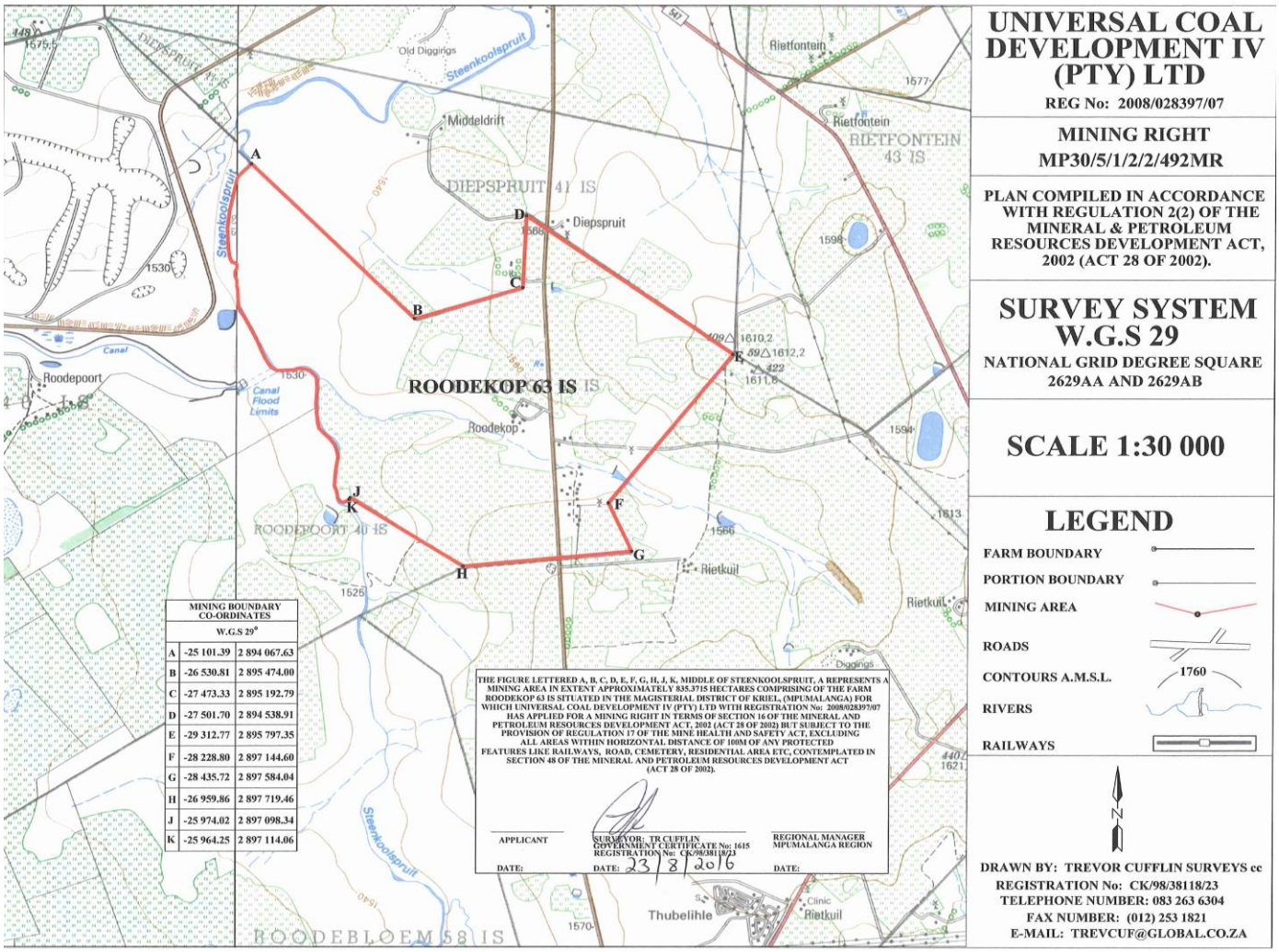
Registered Description of the Land to which the Application Relates

The NCC Project consists of the NCC Mining Right area extended by the addition of the Roodekop Mining Right area. The two existing Mining Rights are:

- NCC:
  - MP30/5/1/2/2/148MR
  - Measuring 4,125.4 hectares (ha) in extent
  - Held by UCDVIII
- Roodekop:
  - MP30/5/1/2/2/492MR
  - Measuring 835.4 ha in extent
  - Held by UCDIV

The boundaries of the Roodekop area are indicated in Map 3-1 below.

Map 3-1: Roodekop Target Area

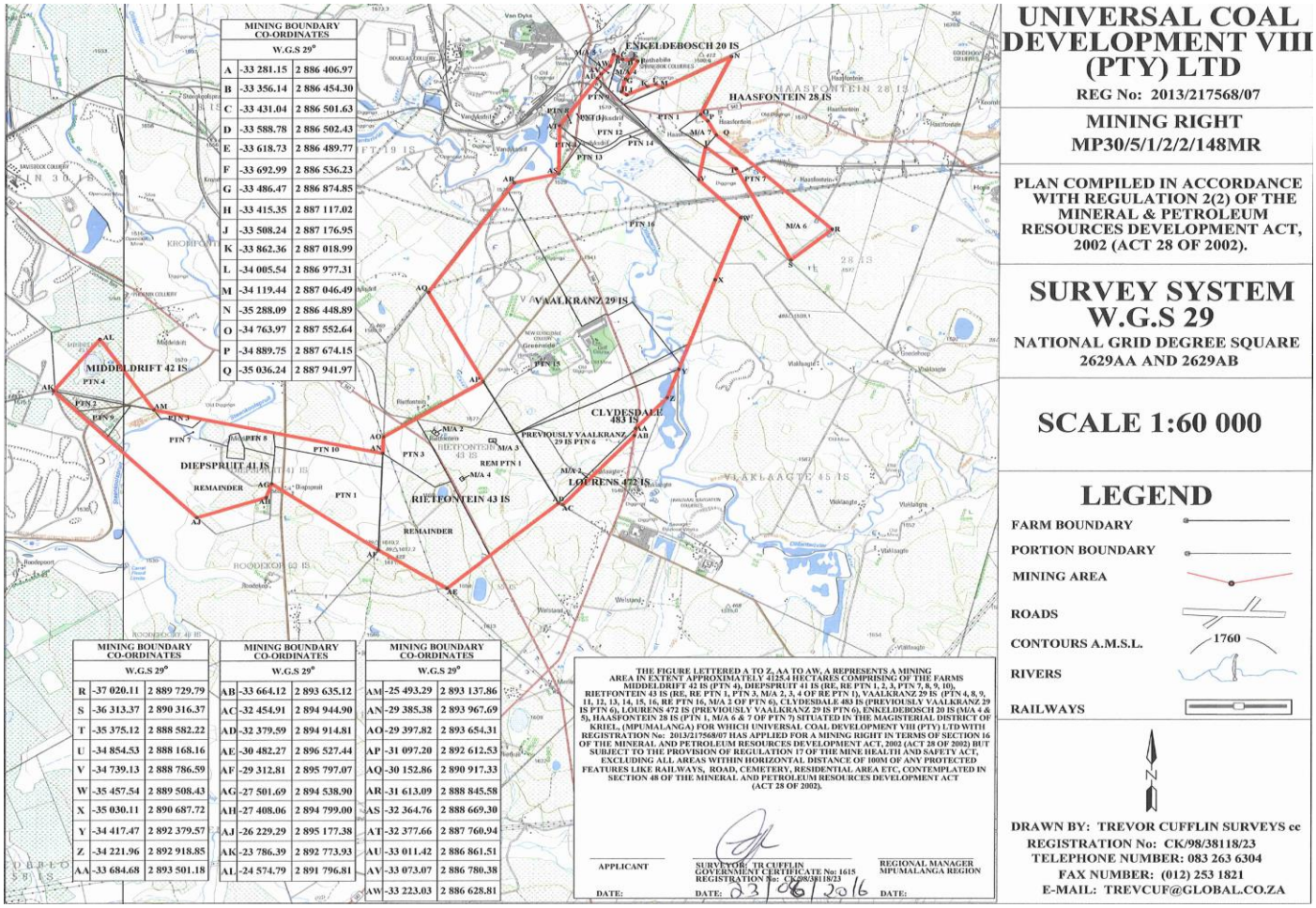


A certified copy of the title deeds in respect of the farm Roodekop is included with this document as Annexure 9. The certified copies of the New Clydesdale Colliery title deeds are included as Annexure 10.

The boundaries of the New Clydesdale Colliery area are indicated in Map 3-2 below.

The boundaries for the combined Roodekop and NCC target areas are shown in Map 3-3 and the boundary coordinates for the combined Project area is provided in Table 3-1 on page 22.

Map 3-2: New Clydesdale Target Area



Map 3-3: NCC Project Combined Target Area

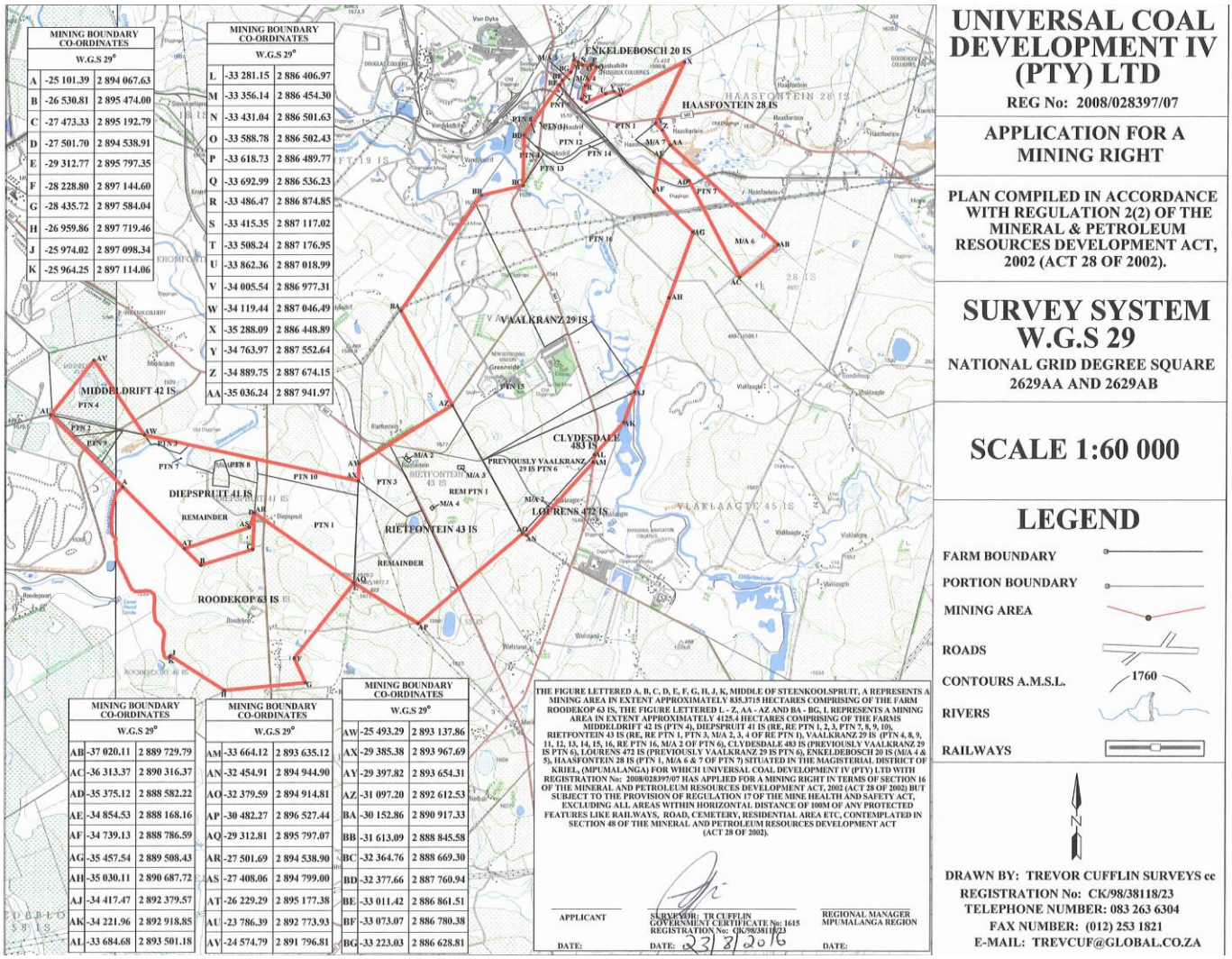


Table 3-1: Boundary Coordinates

Code	Clarke 1880 (Modified) LO 29° East		WGS 84 Hartebeesthoek 94 WG 29° East	
	Y	X	Y	X
A	-33308.55	2886110.46	-33281.16	2886406.96
B	-33383.53	2886157.79	-33356.14	2886454.29
C	-33458.43	2886205.12	-33431.04	2886501.62
D	-33616.17	2886205.92	-33588.77	2886502.42
E	-33646.12	2886193.26	-33618.72	2886489.76
F	-33720.38	2886239.72	-33692.98	2886536.22
G	-33513.87	2886578.35	-33486.47	2886874.84
H	-33442.750	2886820.52	-33415.35	2887117.01
J	-33535.64	2886880.45	-33508.24	2887176.94
K	-33889.76	2886722.48	-33862.36	2887018.98

Code	Clarke 1880 (Modified) LO 29° East		WGS 84 Hartebeesthoek 94 WG 29° East	
	Y	X	Y	X
L	-34032.94	2886680.8	-34005.54	2886977.3
M	-34146.84	2886749.98	-34119.440	2887046.49
N	-35315.49	2886152.37	-35288.1	2886448.88
P	-34791.370	2887256.120	-34763.96	2887552.63
Q	-34917.160	2887377.630	-34889.74	2887674.14
R	-35063.650	2887645.450	-35036.230	2887941.96
S	-37047.54	2889433.27	-37020.11	2889729.79
T	-36340.82	2890019.87	-36313.37	2890316.39
U	-35402.550	2888285.71	-35375.120	2888582.220
V	-34881.94	2887871.65	-34854.51	2888168.15
X	-34766.54	2888490.08	-34739.11	2888786.59
Y	-35484.98	2889211.92	-35457.54	2889508.43
Z	-35057.56	2890391.21	-35030.11	2890687.72
A1	-34444.930	2892083.080	-34417.46	2892379.57
B1	-34249.430	2892622.360	-34221.95	2892918.85
C1	-33712.15	2893204.700	-33684.67	2893501.18
D1	-33691.59	2893338.640	-33664.11	2893635.12
E1	-32482.390	2894648.44	-32454.9	2894944.9
F1	-32407.070	2894618.340	-32379.58	2894914.8
G1	-32407.070	2894618.340	-32379.58	2894914.8
H1	-29340.31	2895500.65	-29312.8	2895797.07
J1	-27529.170	2894242.490	-29312.8	2895797.07
K1	-27435.54	2894502.59	-27408.050	2894799.000
L1	-26256.77	2894880.97	-26229.29	2895177.38
M1	-26558.290	2895177.590	-26530.79	2895473.99
N1	-27500.810	2894896.370	-27473.32	2895192.78
P1	-27710.290	2894368.400	-27682.800	2894664.81
Q1	-27692.840	2894919.500	-27665.34	2895215.91
R 1	-27759.330	2896045.170	-27731.82	2896341.58
S1	-27514.620	2895903.460	-27487.12	2896199.86
T1	-27219.770	2895823.250	-27192.27	2896119.65
U1	-27108.350	2896119.110	-27080.85	2896415.51
V1	-27753.400	2896422.410	-27725.890	2896718.82
X1	-27806.300	2897347.900	-27778.78	2897644.31
Z1	-26001.510	2896801.940	-25974.01	2897098.340

Code	Clarke 1880 (Modified) LO 29° East		WGS 84 Hartebeesthoek 94 WG 29° East	
	Y	X	Y	X
A2	-25991.740	2896817.660	-25964.24	2897114.060
B2	-25128.82	2893771.25	-25101.34	2894067.650
C2	-23813.840	2892477.530	-23786.39	2892773.93
D2	-24602.22	2891500.41	-24574.79	2891796.81
E2	-25520.75	2892841.45	-25493.29	2893137.85
F2	-29412.85	2893671.26	-29385.380	2893967.69
G2	-29425.29	2893357.88	-29397.83	2893654.32
H2	-31124.66	2892316.07	-31097.2	2892612.53
J2	-30180.290	2890620.870	-30152.85	2890917.33
K2	-31640.500	2888549.11	-31613.08	2888845.59
L2	-32392.160	2888372.620	-32364.74	2888669.1
M2	-32405.06	2887464.44	-32377.66	2887760.93
N2	-33038.810	2886565.010	-33011.41	2886861.500
P2	-33100.46	2886483.88	-33073.07	2886780.370
Q2	-33250.42	2886332.31	-33223.03	2886628.8

All Surface Rights required for the execution of the Project are owned by UCDIV and UCDVIII. Surface Rights owned by UCDIV are Portion 1 of the farm Roodekop 63 IS and those owned by UCDVIII are shown in Table 2-2 on page 16.

The land ownership register in respect to UCDIV and UCDVIII are indicated in Table 3-3 on page 26.

Table 3-2: Project Area Farms Owned by UCDVIII

Farm Name, Number and Portion	Area (ha)	Deed
Clydesdale 483 IS	183.6166	T47034/2003
Diepspruit Remaining Extent	300.2502	T10179/2008
Diepspruit 41 IS Portion 1 R/E	2,174,085	T10179/2008
Diepspruit 41 IS Portion 7	6.8523	T47037/2003
Diepspruit 41 IS Portion 8	42.8266	T47031/2003
Diepspruit 41 IS Portion 9	17.1306	T47032/2003
Diepspruit 41 IS Portion 10	42.8331	T37033/2003
Haasfontein 28 IS Portion 1	149.53	T39160/2002
Haasfontein 28 IS Portion 7 M/A 6	148.7195	T47035/2003
Haasfontein 28 IS Portion 19 M/A 7	87.2216	T1473/2010
Rietfontein 43 IS R/E	500.9713	T47039/2003
Rietfontein 43 IS Portion 3	78.4736	T47038/2003

Vaalkranz 29 IS Portion 15 R/E	991.3561	T47036/2003
Vaalkranz 29 IS Portion 16	955.7083	T47036/2003
Diepspruit 63 IS Portion 1	280.33	T893/2015

Table 3-3: Land Ownership Register

Farm Name, Number, Subdivision	Area	Extent (ha)	Current Title Deed	Current Surface Owner	Comments	Land Claims
Middeldrift 42 IS Portion 4	MP	197.90	T36354/2000	Diepspruit 41 Eiendomme 41 PTY LTD		
Diepspruit Remaining Extent	MP	300.25	T10179/2008	UCDVIII		
Diepspruit 41 IS R/E of Portion 1	MP	217.41	T10179/2008	UCDVIII		
Diepspruit 41 IS R/E of Portion 2	MP	56.24	T36354/2000	Diepspruit 41 Eiendomme PTY LTD		
Diepspruit 41 IS R/E of Portion 3	MP	7.43	T36354/2000	Diepspruit 41 Eiendomme PTY LTD		
Diepspruit 41 IS Portion 7	MP	6.85	T47037/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Diepspruit 41 IS Portion 8	MP	42.83	T47031/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Diepspruit 41 IS Portion 9	MP	17.13	T47032/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Diepspruit 41 IS Portion 10	MP	42.83	T37033/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Rietfontein 43 IS R/E	MP	500.97	T47039/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Rietfontein 43 IS R/E of Portion 1	MP	170.90	T57180/2001	Vroegbegin Boerdery		
Rietfontein 43 IS Portion 3	MP	78.47	T47038/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Vaalkranz 29 IS R/E of Portion 15	MP	991.36	T47036/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Vaalkranz 29 IS Portion 4	MP		T73748/2001			
Vaalkranz 29 IS MA 2 of Portion 6	MP					
Vaalkranz 29 IS Portion 8	MP		T8216/1968	Transnet LTD	Not required for mining	
Vaalkranz 29 IS Portion 9	MP		T8216/1968	Transnet LTD	Not required for mining	
Vaalkranz 29 IS Portion 11	MP		T8216/1968	Transnet LTD	Not required for mining	
Vaalkranz 29 IS Portion 12	MP		T8216/1968	Transnet LTD	Not required for	

Farm Name, Number, Subdivision	Area	Extent (ha)	Current Title Deed	Current Surface Owner	Comments	Land Claims
					mining	
Vaalkranz 29 IS Portion 13	MP		T36907/1977	Transnet LTD	Not required for mining	
Vaalkranz 29 IS Portion 14	MP		T36907/1977	Transnet LTD	Not required for mining	
Vaalkranz 29 IS Portion 16	MP	955.71	T47036/2003	UCDVIII		No Claims as per KRP6/2/2/1/F/6 13/11/02
Vaalkranz 29 IS R/E of Portion 16	MP					
Clydesdale 483 IS	MP	183.62	T47034/2003	UCDVIII		
Lourens 472 IS	MP	310.95	T3712/2010	Dorstfontein Coal Mines PTY LTD		
Enkeldebosch 20 IS M/A 4 and M/A 5	MP			Anglo Operations LTD	Not required for mining	
Haasfontein 28 IS R/E of Portion 1	MP	149.53	T39160/2002	UCDVIII		Claims Ref. No. KRP6606/1202 dd 1/6/03 (S Shongwe)
Haasfontein 28 IS R/E of Portion 7	MP	148.72	T47035/2003	UCDVIII		Claims Ref. No. KRP6606/1202 dd 1/6/03 (S Shongwe)
Haasfontein 28 IS Portion 19	MP	87.22	T1473/2010	UCDVIII		Claims Ref. No. KRP6606/1202 dd 1/6/03 (S Shongwe)
Roodekop 63 IS Portion 1	MP	555.04	T129043/2002	UCDIV		
Roodekop 63 IS Remaining Extent	MP	280.33	T893/2015	Emalahleni Local Municipality		

4. Regulation 11 (1) (d)
Details of the Identified Mineral Deposit

4.1. Resource Particulars

Table 4-1: Mineral Deposit Specifications

Item	Detail
Type of Mineral	Coal
Locality (nearest town/ city)	Located ~ 120 km east of Johannesburg, 30 km south of eMalahleni, and ~ 9 km north of Kriel.
Extent of the Area required for Mining	1,083.66 ha
Extent of the Area required for Infrastructure, Roads, Servitudes, etc.	100 ha
Depth of the Minerals below Surface	Maximum depth on the Project is ~ 120 metres (m) and the average depth in the opencast area is 29.35 m
Geological Formation	**Regional Geology**
	The Project Area falls within the Witbank coalfield.
	Local Geology
	The coal deposit that occurs on the Project Area can be classified according to the South African National Standard (SANS) 10320:2004 definitions as a multiple seam deposit type.
	Project Coal Seam Geology
	In the Project Area only the S2U, S2L, S1, and S1A will be mined. The S1A is only present at an economically mineable thickness in the Roodekop area, where opencast mining will be applied. The S4U and S4L are present towards the eastern boundary. In the Middeldrift area, the S4 is thicker and can be mined economically.
	Seam Description
	The seams are relatively flat lying and due to the increase in surface elevation, there is an increased depth to the top of the seams towards the east of the Project Area and towards the west in the Middeldrift area. No major faults or dolerites have been identified. However, a plot of the S1A floor elevation indicates a possible southeast to northwest trending fault resulting in a basement high. This fault lies close to the boundary between the farms Roodekop and Diepspruit in the western part of the Project Area. The fault has downthrown the seams to the south by ~ 10 m and most likely cuts off the S1A towards the northeast.

4.2. Details of Person Who Compiled the Resource Statement

Table 4-2: Compilation of Resource Statement for NCC

Item	Details
Name	Elizabeth de Klerk
Qualification/s	BSc Geology (University of Leicester) – 2000 MSc Exploration Geology (Rhodes University) – 2002 Project Management (University of Witwatersrand) - 2007
Profession	Geologist
Experience	Ms de Klerk has been involved in the exploration and resource consulting industry for more than 10 years. Her project management skills extend from organising casual labour and junior geologists to assisting with contracts, advising mine managers, creating budgets, and liaising with the Department of Mineral Resources (DMR). For the last eight years, she has been involved in coal exploration and resource estimations. Her skills include planning, implementing and managing exploration programs (utilising percussion and diamond drilling, surface and downhole geophysics), training and managing junior geologists, interpretation of results (including contour mapping and band studies), liaising with clients and subcontractors, 3D modelling, writing CPRs and Declaration of (coal) Mineral Resources according to the SAMREC/ JORC/ NI 43-101 requirements.

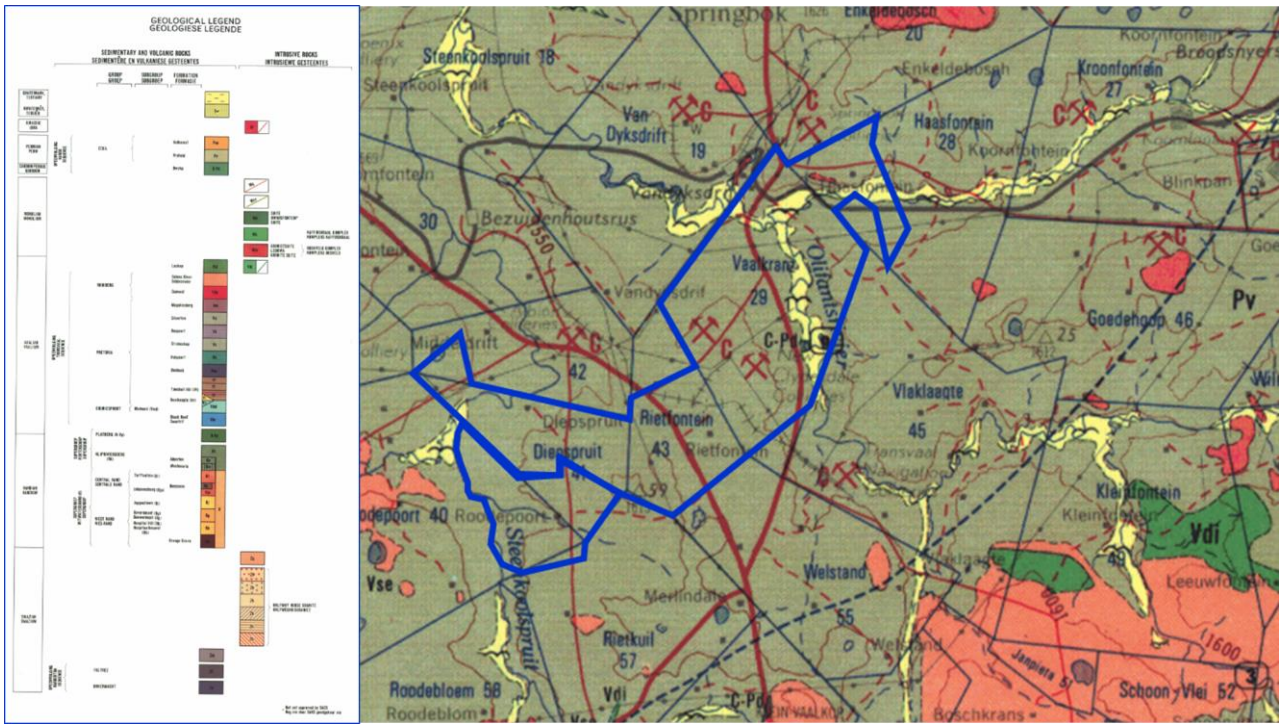
Table 4-3: Compilation of Resource Statement for Roodekop

Item	Details
Name	Nico Denner
Qualification/s	B Sc (Hons) (Prof. Sci. Nat)
Profession	Geologist
Experience	Eighteen years' experience in coal geology and mining

4.3. Locality Specific Geological Map

The Project is located centrally on the southern boundary of the Witbank Coalfield. Map 4-1 on page 30 is a copy of the geological map for the Project Area.

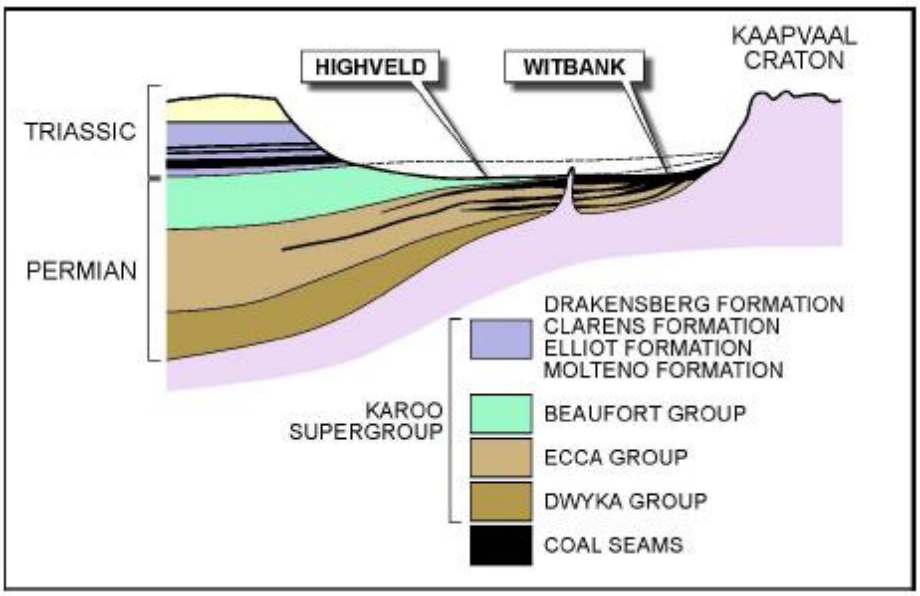
Map 4-1: Project Area Geological Map



4.3.1. Regional Geology

All of the known coal deposits in South Africa are hosted in sedimentary rocks of the Karoo Basin, a large retro-foreland basin which developed on the Kaapvaal Craton and filled between the Late Carboniferous and Middle Jurassic periods (Figure 4-1 below).

Figure 4-1: Schematic Representation of Coal Deposition in South Africa



(after RMS Falcon, 1986)

The Karoo Supergroup is litho-stratigraphically subdivided into the Dwyka, Ecca, and Beaufort groups, succeeded by the Molteno, Elliot, and Clarens Formations and the Drakensburg Formation (S.A.C.S., 1980). The coals range in age from Early Permian (Ecca Group) through to Late Triassic (Molteno Formation) and are predominantly bituminous to anthracite in rank. This is a classification in terms of metamorphism under the influence of temperature and pressure.

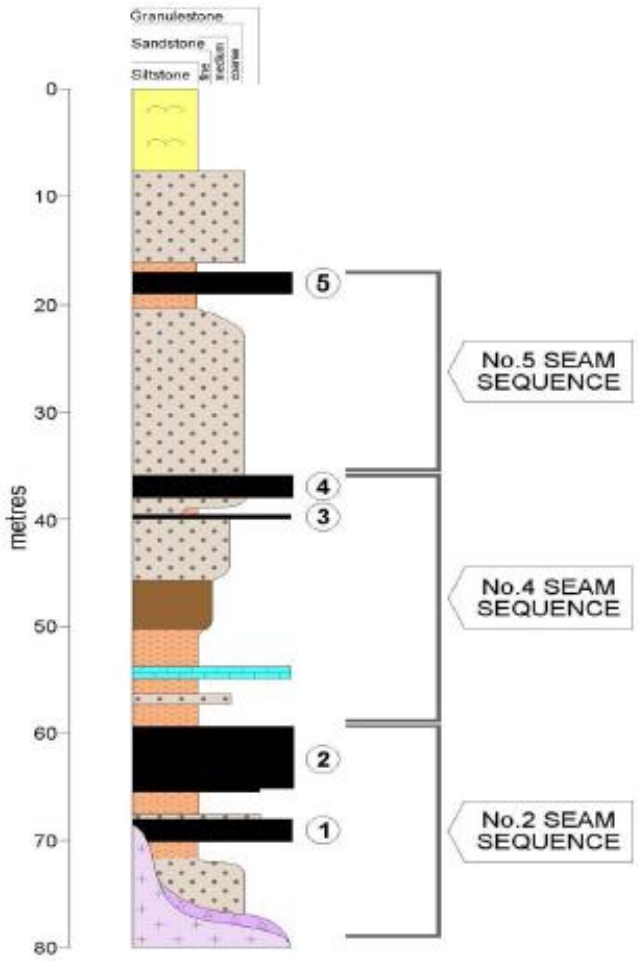
Based on variations in sedimentation, origin, formation, distribution, and quality of the coal seams, 19 coalfields are defined within the Karoo Basin. These variations are in turn attributed to specific conditions of deposition and the local tectonic history characteristic of each area. The NCC Project falls within the Witbank Coalfield.

The coal bearing Ecca Group has been divided into three sub-units: the Pietermaritzburg, Vryheid, and Volksrust formations. Within the main Karoo Basin of South Africa, the primary economically important coal seams occur in the Vryheid Formation of the Ecca Group.

The Vryheid Formation rests non-conformably on sedimentary rocks of the Dwyka Group, which are interpreted to be the products of glacial, fluvio-glacial, and glacio-lacustrine depositional environments. Documenting and understanding these glacial deposits is important for understanding coal seam thicknesses and qualities, particularly for the No. 1 and No. 2 seams. The Dwyka Group in the Witbank- and Highveld Coalfield areas is mainly represented by glacially deposited diamictites and varved shales. The Vryheid Formation ranges in thickness from 70 m to 300 m, being thickest in the northeast and east of the preserved outcrop area.

In a complete succession, each of the five coarsening-upward sequences starts with fine grained marine facies represented by siltstone and mudstone, which grade upwards into coarser delta front and delta plain-fluvial facies represented by sandstone and gritstone. Several coal seams occur in the Vryheid Formation and these are associated predominantly with the coarser-grained fluvial facies at the top of each sequence (Figure 4-2 on page 32). These coal seams can be traced laterally across the entire area of occurrence of the Vryheid Formation and as such are correlatable marker horizons.

Figure 4-2: Stratigraphic Column for the Vryheid Formation in the Witbank Coalfield



(From Cairncross and Cadle, 1988)

Numerous dolerite intrusions (dykes and sills) intrude the Vryheid Formation at various stratigraphic levels. These intrusions have affected the quality of the coal in places.

Roodekop is located centrally and close to the southern extent of the Witbank Coalfield. The boundaries between the individual coalfields are based largely on historical and geographic considerations and not necessarily on real geological differences.

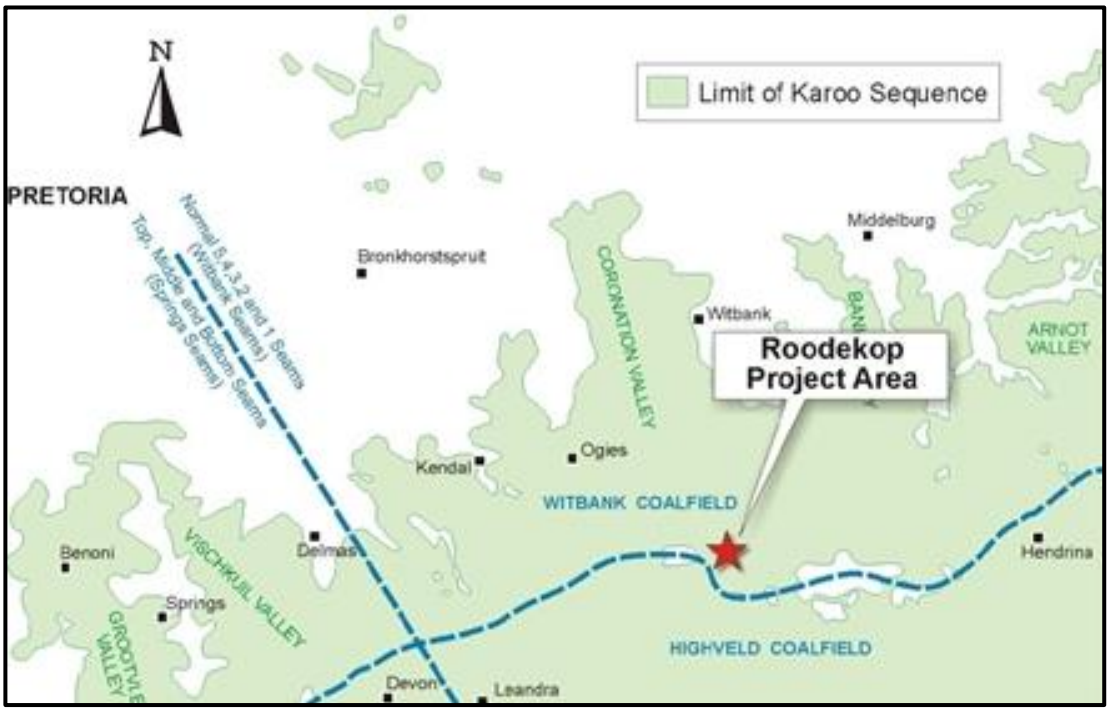
4.3.2. Witbank Coalfield Geology

The Witbank Coalfield is one of the most important coalfields in South Africa, supplying more than 50 % of South Africa's saleable coal. It produces both metallurgical coal and A-grade to D-grade steam coal for the export and local markets and hosts most of the major coal-fired power stations in South Africa.

In the Witbank Coalfield, five coal seams are contained within a 70 m thick succession of Vryheid Formation sedimentary rocks. The distribution and attitude of the No. 1 and No. 2 seams are primarily controlled by the pre-Karoo topography, particularly erosional glacial valleys, with the No.

4 and No. 5 seams controlled by the present day land surface. In some areas, parts or all of these seams have been eroded away. Figure 4-3 below shows the Witbank Coalfield and the various palaeovalleys within this field.

Figure 4-3: Witbank Coalfield



The seams, from the base upwards, include the:

– No. 1 Seam:

The No. 1 Seam is better developed in the Witbank Coalfield than the Highveld Coalfield and is, within the Witbank Coalfield, best developed in the northern part, where it is between 1.5 m and 3 m thick. Development of the seam occurs mostly in palaeovalleys and tends to pinch out against the paleohighs. The seam typically consists of high quality lustrous to dull coal, with local sandstone and siltstone partings. The seam is a source of A-grade steam coal and low phosphorus metallurgical coal.

– No. 2 Seam:

The No. 2 Seam contains some of the best quality coal. The seam averages 6.5 m in thickness in the main-central part of the coalfield and thins to ~ 3 m towards the west and east. The seam generally displays well-defined zoning, with up to six zones of coal of differing quality. The basal five zones are generally mined for production of steam coal for the export market. The top zone (sixth zone), which can be up to 3 m thick, is generally of inferior quality (high Ash) and is only suitable for the local Eskom market.

– No. 3 Seam:

The No. 3 Seam is poorly developed. When it is present, it is usually less than 0.5 m in thickness. It is often of a good quality coal, but is not generally economically extracted due to its thickness. Where it attains a thickness of ~ 0.8 m, it could represent an important opencast resource.

– No. 4 Seam:

It varies in thickness from ~ 2.5 m in the central Witbank area to 6.5 m elsewhere. The seam is divided into the No. 4 Lower, No. 4 Upper, and No. 4A zones, separated by sandstone and siltstone/ mudstone partings. The seam usually contains dull to dull lustrous coal and the mining horizon is generally restricted to the No. 4 Lower Seam, because of the poor quality of the No. 4 Upper Seam. The coal is suitable mostly as a power station feedstock.

– No. 5 Seam:

The No. 5 Seam has been extensively eroded over large areas and has a thickness between 0.5 m and 2 m thick. The seam consists of mixed, mainly bright, banded coal with thin clastic partings in a few localities. The seam is generally of high quality, low phosphorus coal and is a source of blended coking coal.

The Project areas are associated to the South Africa Witbank Coalfields as shown in Figure 4-3 on page 33.

4.3.3. Local Deposit Geology

The NCC Project is underlain by the sandstone, shale, and coal of the Ecca Group and tillite of the Dwyka Group. The underlying rock is pre-Karoo basement and consists predominantly of rhyolites and interbedded mudstone and sandstone of the Rooiberg Group, Transvaal Supergroup. These pre-Karoo basements outcrop to the west and south of Roodekop, and affected the lower most coal seams underlying NCC Project Area (Map 4-1 on page 30).

The NCC Project area may be classified as a multiple seam deposit type and hosts five seams, namely the No. 5, No. 4, No.3, No. 2 and No. 1, of which the No 4, No. 2, No.1 and No. 1A seams are of economic interest.

4.4. Exploration Results

Annexure 11 provides details regarding the exploration boreholes. The detail includes the borehole numbers, depth to coal, parting, and coal seam thicknesses.

Universal Coal commenced with exploration in 2009, following historical exploration conducted in the Roodekop area since the 1970s. To date, Universal Coal has completed 99 holes on the Roodekop property. In the NCC resource area, 159 boreholes have been drilled since 2007.

Annexure 11 indicates details regarding the exploration boreholes. The detail includes the borehole numbers, depth to coal, and parting. A Competent Persons' Report by Coffey Mining, dated March 2013, is included as Annexure 12. The Coffey Mining CPR report was superseded by the geological report by compiled GEMECS, as additional boreholes had been drilled after this CPR

was issued. The GEMECs report is attached as Annexure 13. The exploration results are detailed in the Coffey Mining CPR and the GEMEC's report.

4.5. Information required in terms of Regulation 8

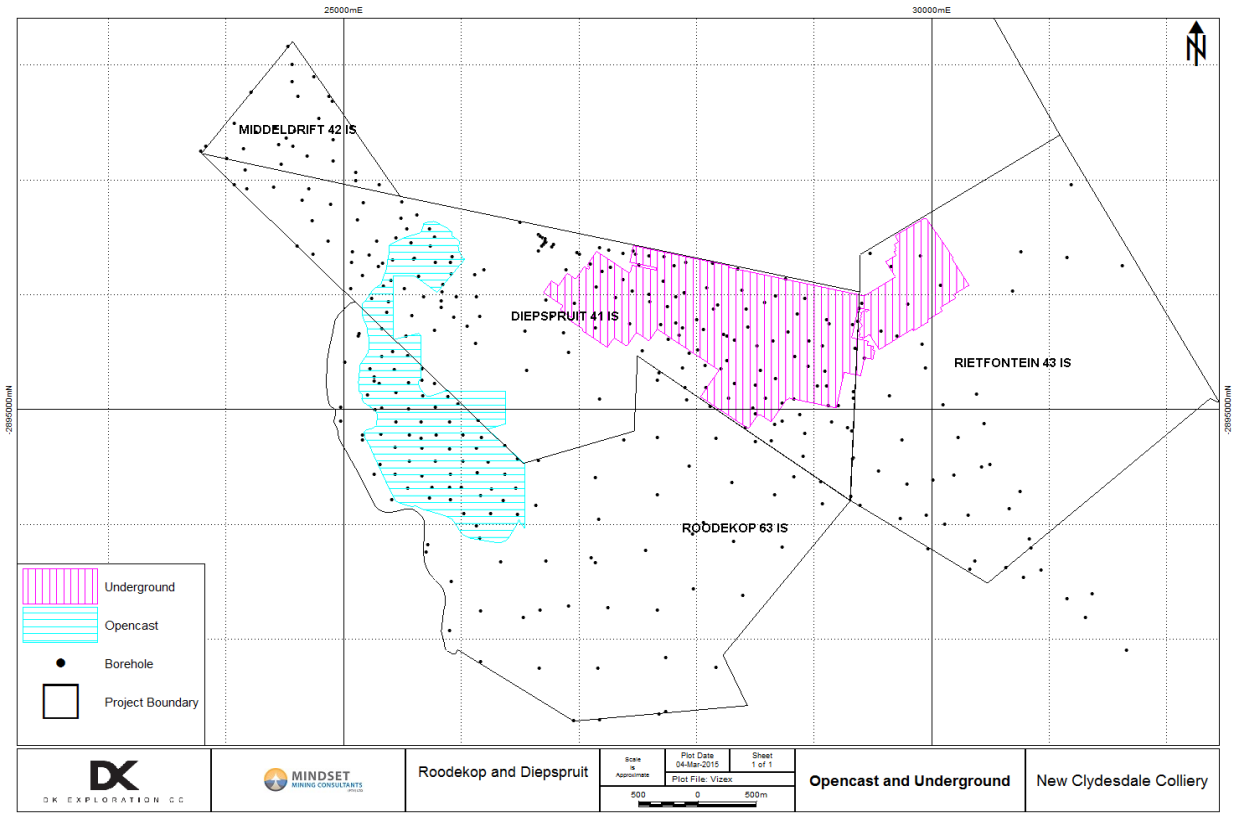
Information relating to Regulation 8 is included in the Coffey Mining CPR, attached as Annexure 12, and the GEMECS Geological Report, attached as Annexure 13, as well as the Geology chapter of the BFS, which is included as Annexure 14. Details included in the reports are:

- Borehole results
- Sampling analyses
- Maps showing location, depth, and extent of prospecting work
- Geophysical surveys

4.6. Mineral Resource Map

The resource areas are indicated in Figure 4-4 below.

Figure 4-4: Opencast and Underground Resource Areas

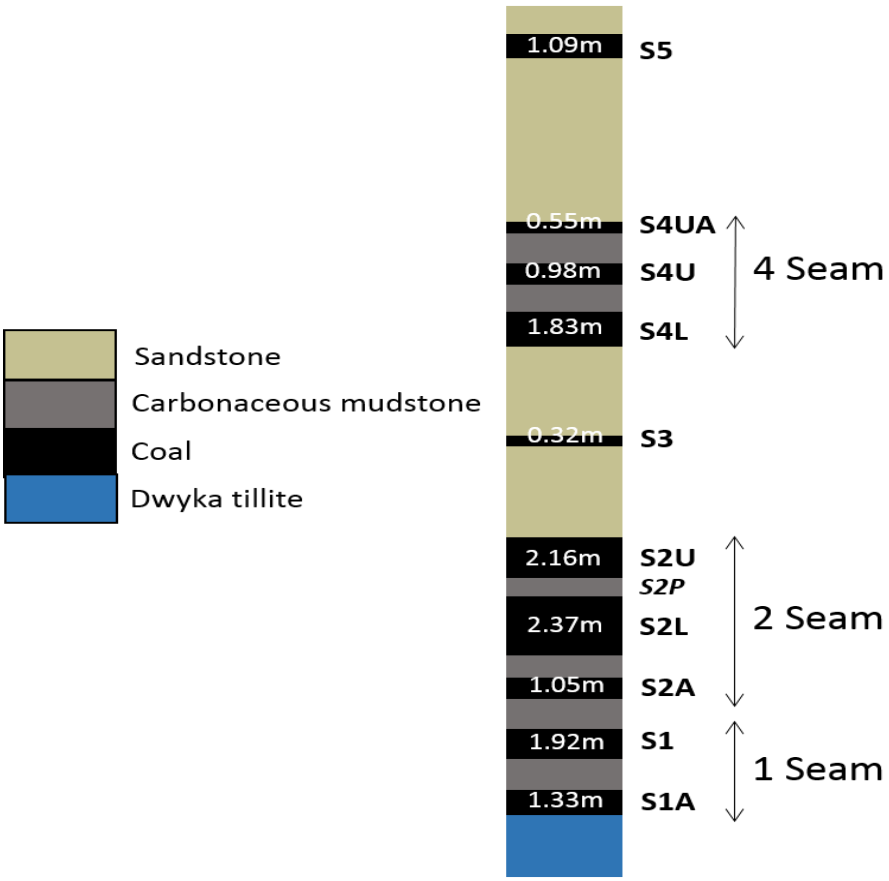


4.6.1. Local Stratigraphy

Locally, the S4, S2, and S1 have been sub-divided into individual plies that have each been modelled and reported separately, as indicated in Figure 4-5 below. During modelling, the S2 was renamed and the data provided for this review includes both nomenclatures, which are explained below:

- 2 Upper Seam (S2U) = 2 Top Seam (S2T)
- Seam 2 Parting (S2P)
- 2 Lower Seam (S2L) = 2 Seam Select (S2S)

Figure 4-5: Local Stratigraphy



4.6.2. Local Geological Structure

The surface topography on the Project Area is relatively flat, with moderate undulations and a gradual increase in surface elevation towards the east. A north to south trending shallow-sided valley runs through the western side of the property. The surface topography is indicated in Figure 4-6 on page 37.

In the Project Area the S4U, S4L S2U, S2L, S2A, S1, and S1A will be mined. The S1A is only present at an economically mineable thickness in the Roodekop area, where opencast mining will be

applied. In the Roodekop resource areas, the S4U and S4L are present towards the eastern boundaries but due to its depth and thickness, these two seams are uneconomical to mine.

In the Middeldrift area, the S4U and S4L are thicker and can be mined economically. The seams are relatively flat lying and due to the increase in surface elevation, there is an increased depth to the top of the seams towards the east of the Roodekop/ Diepspruit Area and towards the west in the Middeldrift area. No major faults or dolerites have been identified. However, a plot of the S1A floor elevation indicates a possible southeast to northwest trending fault resulting in a basement high. This fault lies close to the boundary between the farms Roodekop and Diepspruit towards the western part of the Project Area. The fault has downthrown the seams to the south by ~ 10 m and most likely cuts off the S1A towards the northeast. The fault trend is indicated in Figure 4-6 below.

Figure 4-6: Surface Topography

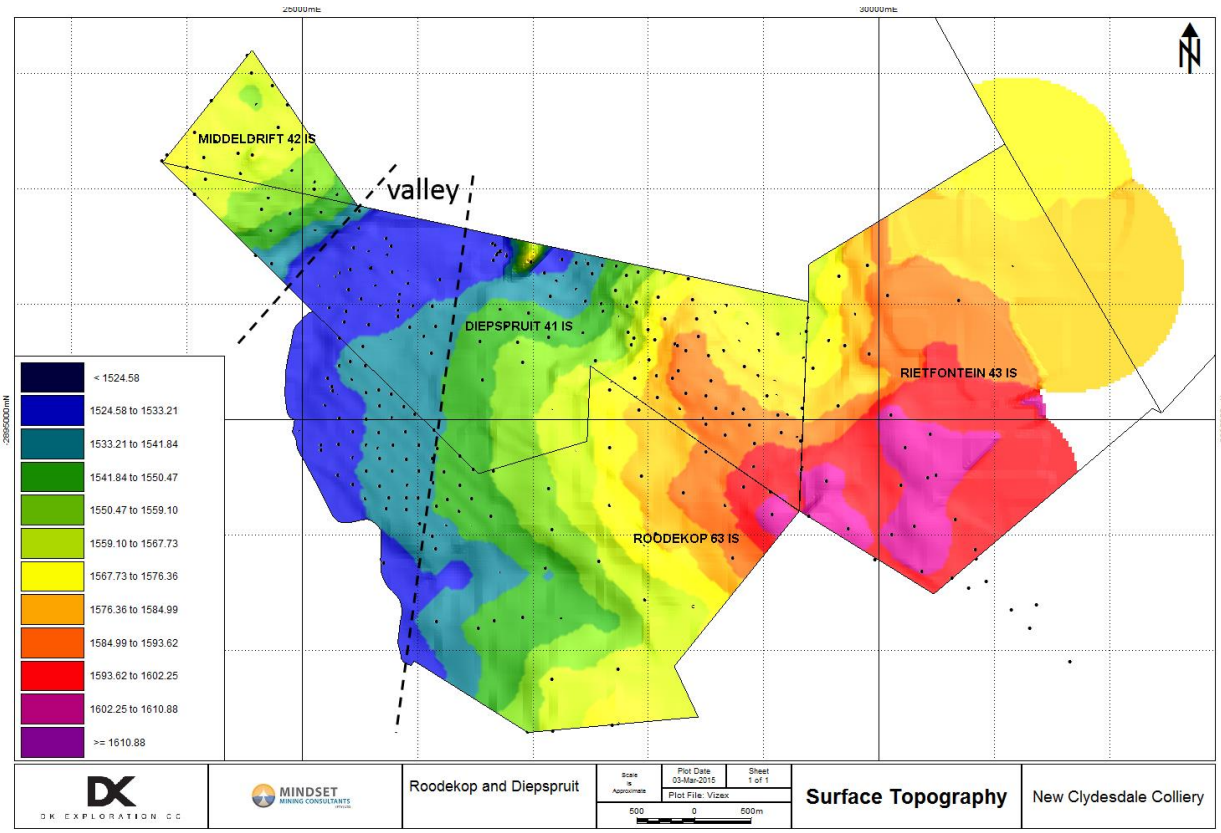


Figure 4-7: S1A Floor Elevation and Fault Trend Lines

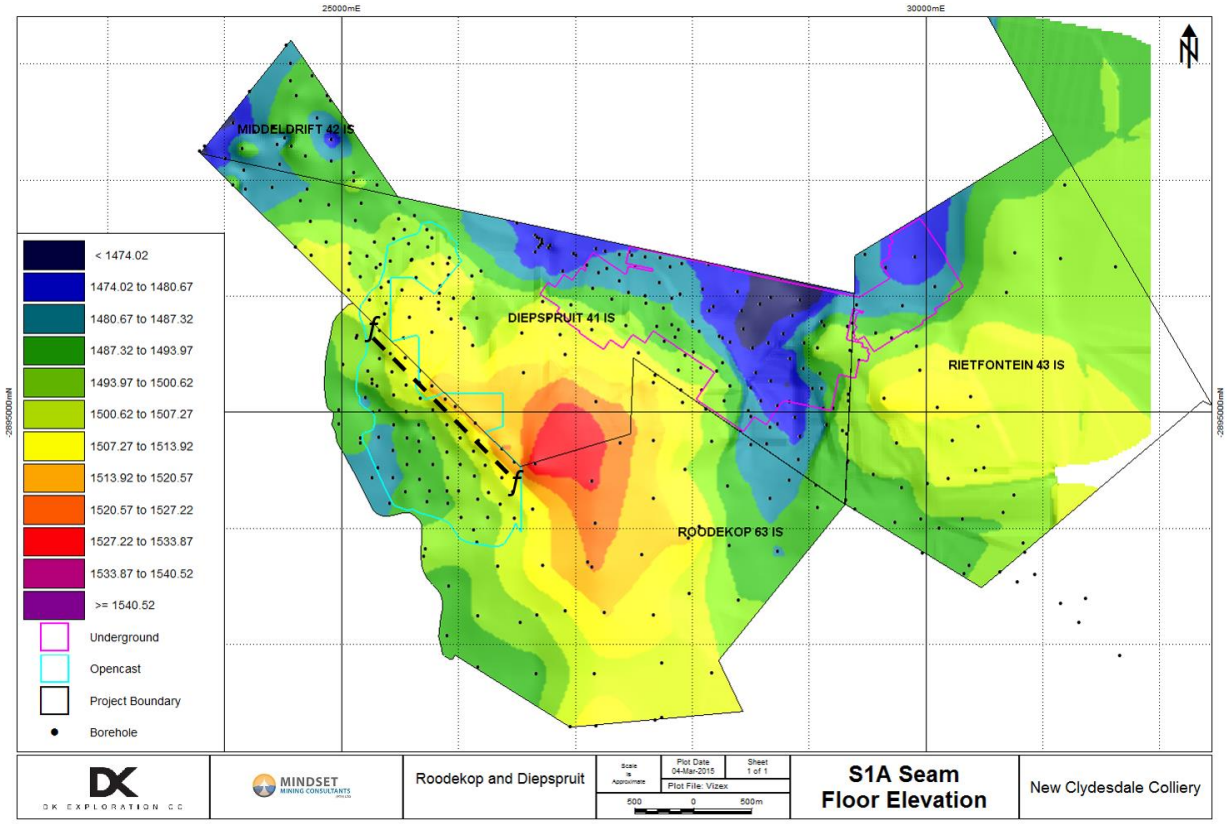


Table 4-4 below shows the minimum (min), maximum (max), and average (ave) seam thicknesses and depths on the Project area. The seams are discussed in detail in the Geological Report (Annexure 13).

Table 4-4: Seam Depth and Thickness

		Seam										
		S5	S4UA	S4U	S4L	S3	S2U	S2P*	S2L	S2A	S1	S1A
Thickness	Min	0.50	0.08	0.26	0.25	0.19	0.19	0.24	0.26	0.19	0.19	0.27
	Ave	1.09	0.55	0.98	1.83	0.32	2.16	0.99	2.37	1.05	1.92	1.33
	Max	1.54	1.95	3.55	3.97	0.64	5.75	2.85	5.96	2.63	3.68	2.21
Depth	Min	6.70	13.71	8.00	6.97	11.58	7.11	8.71	9.14	14.16	8.9	24.2
	Ave	24.90	40.79	37.94	40.69	51.82	48.95	45.69	52.23	62.17	58.93	46.03
	Max	47.39	78.70	80.20	84.15	84.48	108.67	110.16	111.97	118.12	119.38	106.73

*sedimentary inter-seam parting

The cross section lines are indicated in Figure 4-8 on page 39 with the north to south and west to east cross section indicated in Figure 4-9 on page 40 to Figure 4-12 on page 41.

Figure 4-8: Cross Section Lines

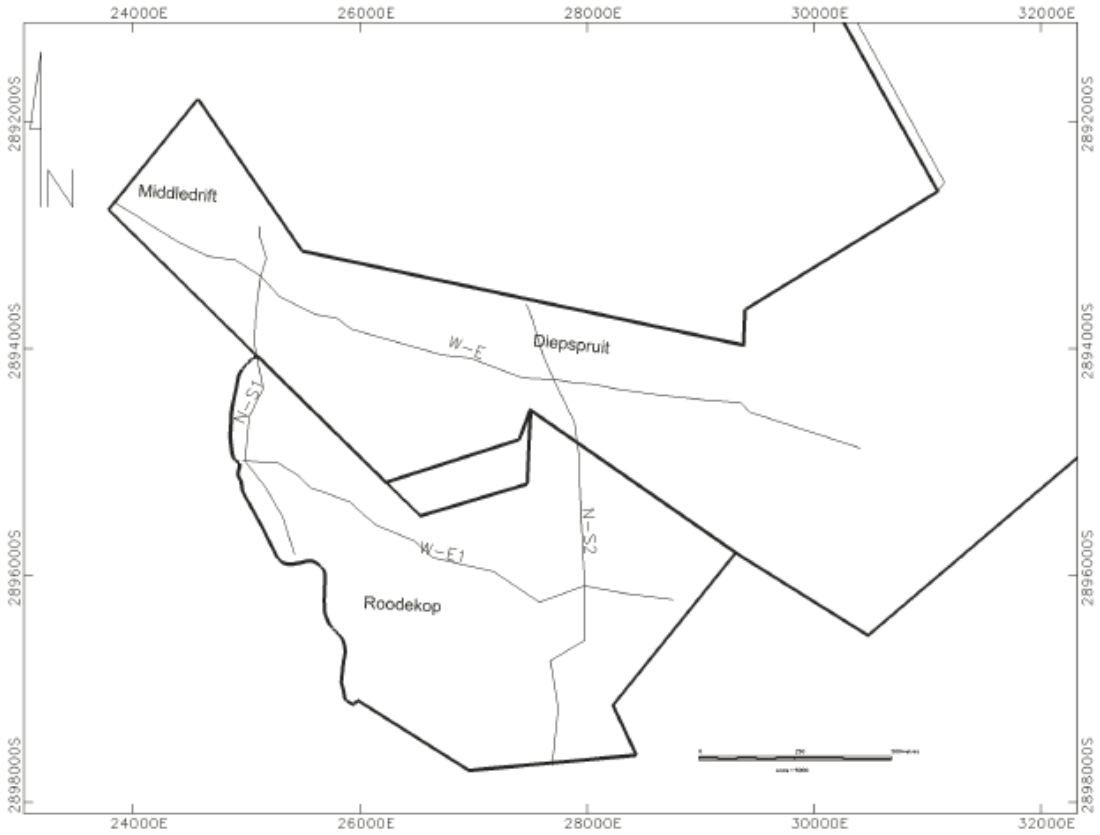


Figure 4-9: Cross Section North to South 1

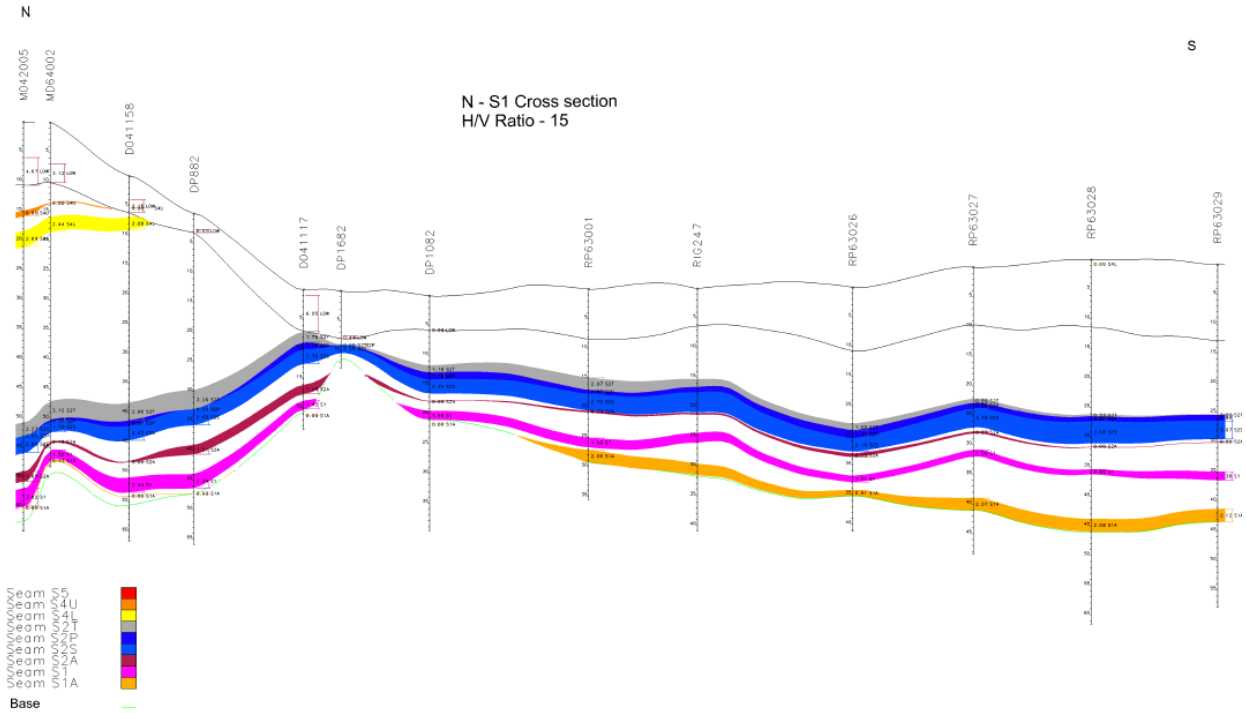


Figure 4-10: Cross Section North to South 2

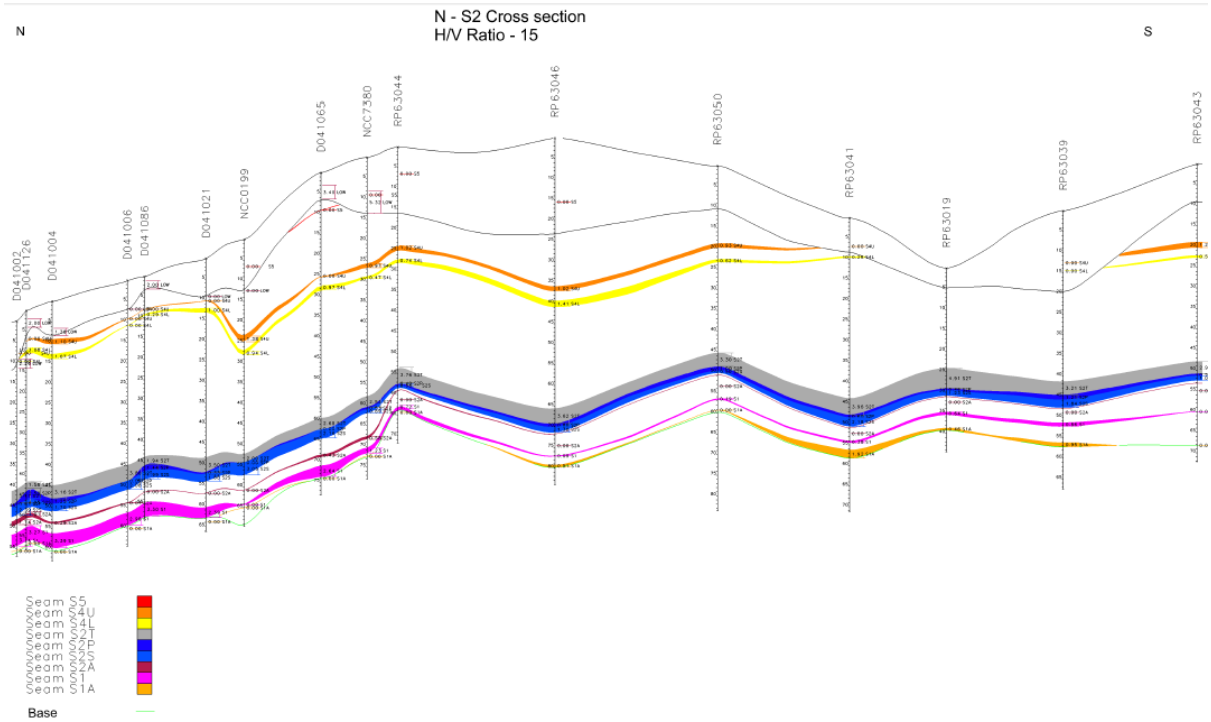


Figure 4-11: Cross Section West to East 1

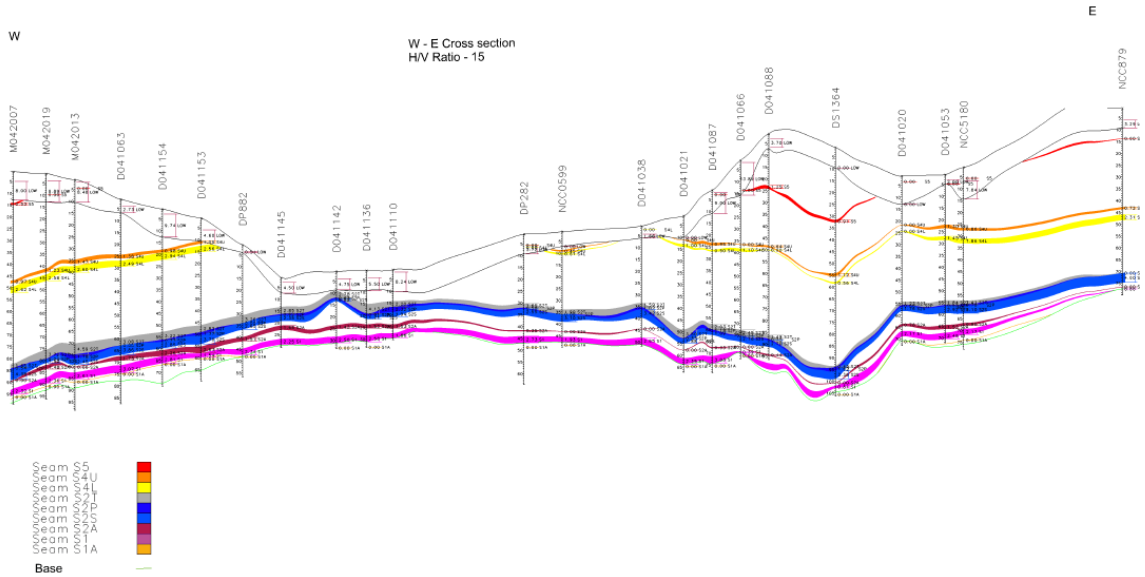
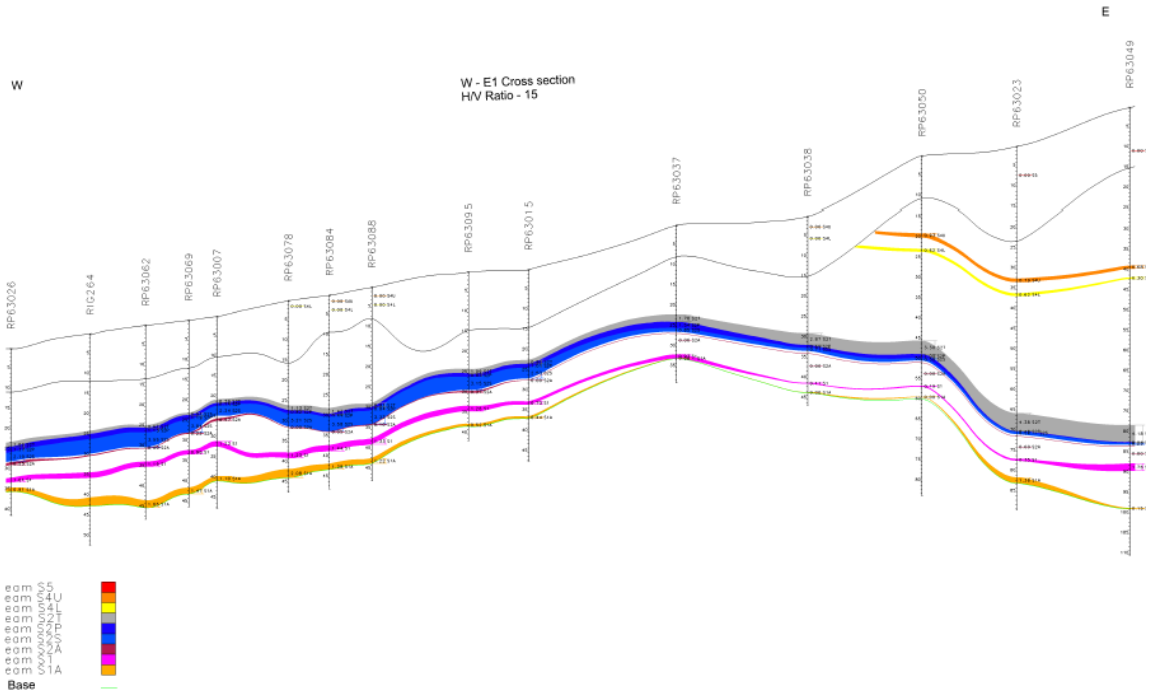


Figure 4-12: Cross Section West to East 2



4.6.3. Project Coal Seam Qualities

4.6.3.1. 2 Upper Seam Qualities

The in situ coal qualities for the S2U are shown in Table 4-5. It is clear from these tables that the S2U has poor qualities for an export 27.2 megajoules per kilogramme (MJ/kg) and a 25.5 MJ/kg Calorific Value (CV). The average yield for the S2U, when washed at a 1.8 Relative Density (RD), is 57.25 %.

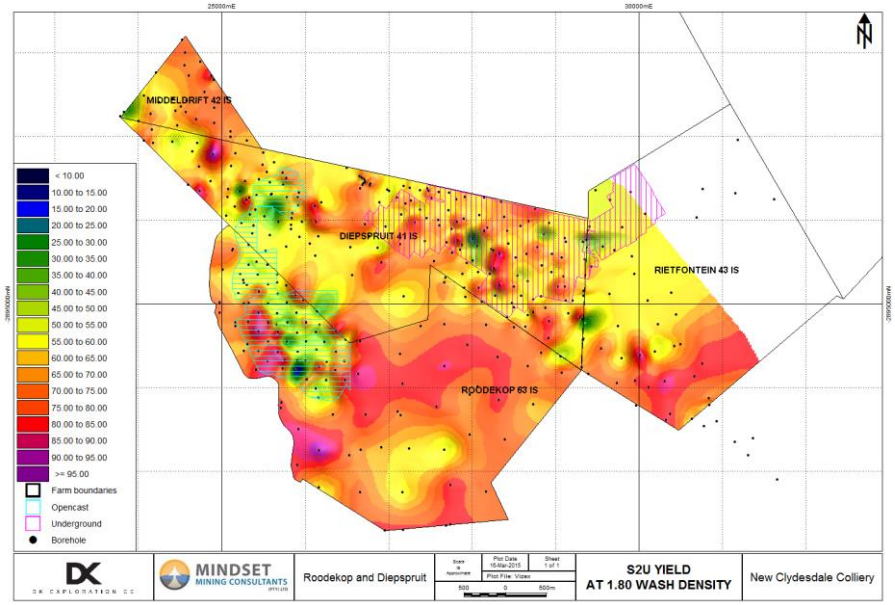
All seams will be washed at a 1.8 RD, which is the maximum practical RD that the NCC washing plants can wash. The S2U will be washed together with the S2L and S1 at a 1.8 RD. At this RD, the S2L and S1 produces a product with the Ash content lower than 24 % (air-dried) as required by Eskom. The S2U produces Ash content above 24 % when washed at 1.8 RD. However, the washed seams are blended together to produce the Eskom 24 % Ash product.

Table 4-5: S2U Opencast Area In Situ Qualities

	Min	Max	Ave
CV (MJ/kg)	16.53	17.93	17.23
Total Sulphur (TS) (%)	0.59	0.86	0.69
Ash (%)	37.01	40.59	38.79
Inherent Moisture (IM) (%)	2.39	3.03	2.78
Volatile Matter (VM) (%)	17.56	18.67	18.30
Fixed Carbon (FC) (%)	38.37	41.74	40.13

The Yield distribution of the S2U when washed at a 1.8 RD is shown in Figure 4-13.

Figure 4-13: S2U Yield at 1.8 Wash Density



4.6.3.2. 2 Lower Seam Qualities

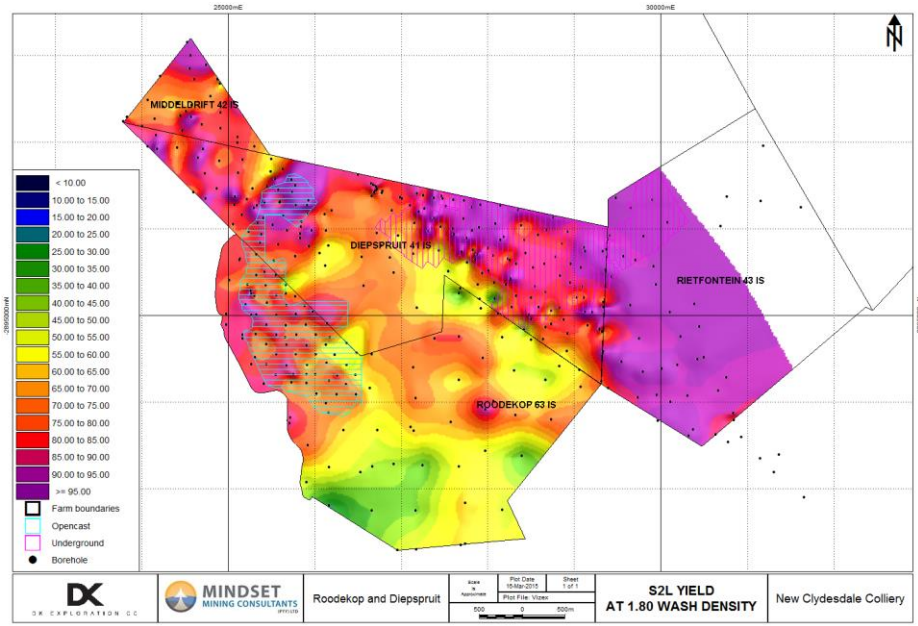
The opencast and underground qualities for the S2L are shown in Table 4-6.

Table 4-6: S2L Opencast and Underground Areas In Situ Qualities

Qualities	S2L Opencast			S2L Underground		
	Min	Max	Ave	Min	Max	Ave
CV (MJ/kg)	19.92	24.08	21.65	22.30	26.30	24.86
TS (%)	1.10	1.50	1.27	1.08	1.77	1.31
Ash (%)	23.70	32.20	28.19	18.29	28.42	21.72
IM (%)	2.41	2.94	2.84	1.93	2.37	2.20
VM (%)	21.88	25.86	23.82	25.79	28.01	27.08
FC (%)	43.01	49.92	45.15	43.86	52.54	48.99

The Yield distribution of the S2L when washed at a 1.8 RD is shown in Figure 4-14.

Figure 4-14: S2L Yield at 1.8 Wash Density



4.6.3.3. 1 Seam Qualities

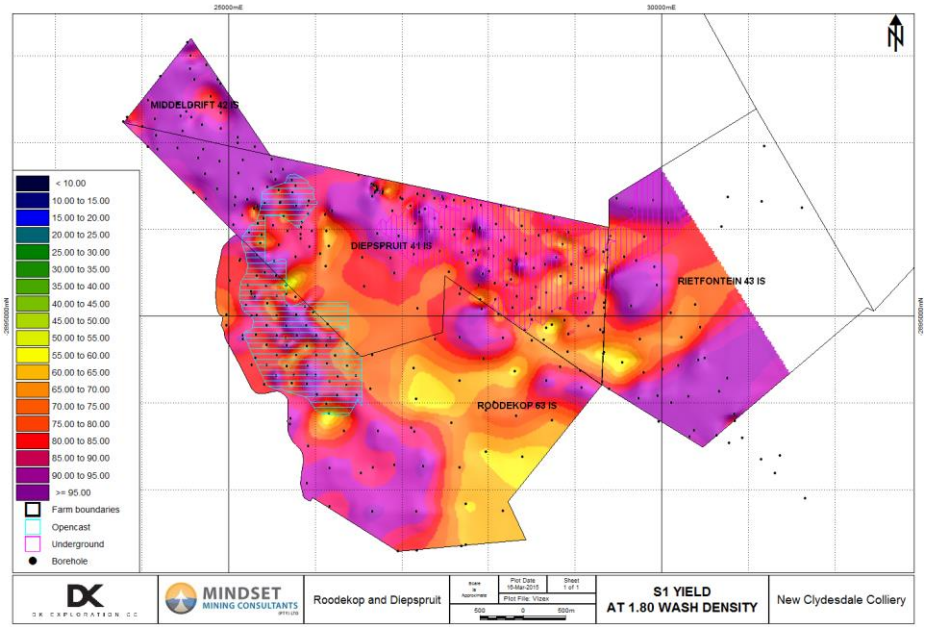
The coal qualities of the S1 opencast and underground areas are indicated in Table 4-7.

Table 4-7: S1 Opencast and Underground Areas In Situ Qualities

Qualities	S1 Opencast			S1 Underground		
	Min	Max	Ave	Min	Max	Ave
CV (MJ/kg)	19.60	23.31	21.38	20.44	22.43	21.57
TS (%)	0.69	1.20	0.91	0.42	1.20	0.71
Ash (%)	25.86	34.12	29.87	27.97	33.81	30.77
IM (%)	2.04	3.04	2.70	1.75	2.23	1.93
VM (%)	18.62	25.10	20.91	20.03	25.36	22.94
FC (%)	44.44	47.00	46.51	41.75	47.43	44.36

The Yield distribution of the S1 when washed at a 1.8 RD is shown in Figure 4-15.

Figure 4-15: S1 Yield at 1.8 Wash Density



4.6.3.4. 1A Seam Qualities

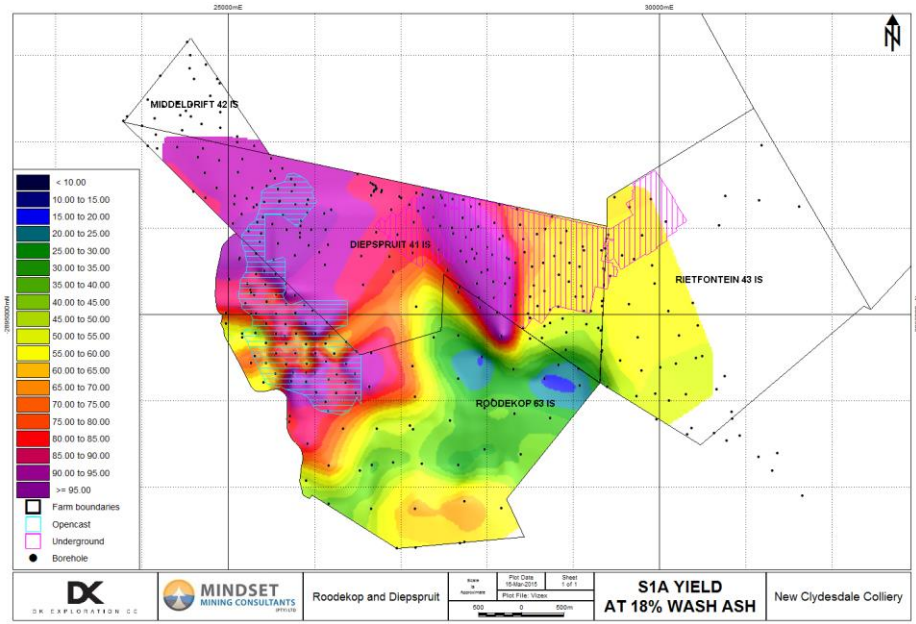
The coal qualities of the S1A opencast area is indicated in Table 4-8.

Table 4-8: S1A Opencast Area In Situ Qualities

Qualities	Min	Max	Ave
CV (MJ/kg)	20.42	25.26	23.54
TS (%)	0.80	1.52	1.25
Ash (%)	20.96	31.44	24.99
IM (%)	2.56	2.96	2.68
VM (%)	22.33	28.43	26.25
FC (%)	43.48	48.32	46.07

The Yield distribution of the S1A when washed for an 18 % Ash product is shown in Figure 4-16.

Figure 4-16: S1A Yield at 18 % Wash Ash



4.7. Resource Statement

Exploration boreholes cover the whole Project Area and coal seams are present across the entire Project Resource Area. The area is subdivided into potential opencast and underground resource areas, using the combined strip ratio as a cut off at (less than) < 5 cubic metres (m^3) per tonne as a guide to define the opencast area, and areas where the S4 or S2 is deeper than 30 m to define the underground resource area. In addition, areas around the opencast areas that were affected by wetlands and that are in the 1:50 year flood line were removed from the mineable resource areas.

The river splits the opencast area in two, resulting in Opencast North (OCN) and Opencast South (OCS) blocks. The underground area is unaffected, and is generally in the northern and eastern half of the Project Area.

Coal resources were determined based on the areas where the coal could be mined economically by opencast or underground mining methods.

The following borehole spacing was used for resource classification:

- Up to 350m – Measured Resources
- Up to 500m – Indicated Resources
- Up to 1000m – Inferred Resources

Only boreholes where the relevant coal seam was analysed, were considered for resource classifications.

For the Roodekop resource area the entire area is classified as a Measured coal resource for the primary S2, and for the S1 and S1A small areas are still Indicated.

Minimum seam thickness inclusion is 0.5 m for the opencast area and 1 m for the underground area. No cut-offs are applied on the qualities.

The geological report, which formed part of the Bankable Feasibility Study (BFS) conducted by Mindset Mining Consultants, is included as Annexure 14. The report, dated April 2015, included the geological interpretation and calculation of the resources. The CPR by Coffey Mining and the Geological Report by GEMECS are also attached as Annexure 12 and Annexure 13 respectively.

4.7.1. Roodekop Section Resource

Roodekop resources based on the following information:

- Original hard copy borehole logs
- Laboratory analysis certificates
- Validated GBIS data base
- A geological report by GEMECS, dated 30 June 2013
- The integrated geological model completed by Universal Coal

Coffey Mining (South Africa) Pty Ltd (Coffey Mining) issued a Competent Persons Report (CPR) in 2010. The Coffey Mining CPR report has been superseded by the geological report by GEMECS, as additional boreholes had been drilled after this CPR was issued. The CPR provided all historical and current exploration drilling and analytical data.

For the Roodekop resource area the entire area is classified as a measured coal resource for the primary S2 seam, and for the S1 and S1A seams small areas are still indicated.

4.7.2. NCC Section Resource

The geological interpretation and the calculation of the NCC resources for the Resource Statement and the BFS are based on:

- The GBIS database compiled by GEMECS and Universal Coal and provided to Mindset
- The 2012 SAMREC Mineral Resource and Ore Reserve Report Compiled by Exxaro's internal geological department
- The final Diepspruit resource estimates were based on the estimates provided by Universal Coal from their integrated model. A copy of the Resource Report is attached as **Annexure 13**.

4.7.3. Middeldrift Section Resource

The geological interpretation and the calculation of the Middeldrift resources for the Resource Statement are based on:

- The GBIS database compiled by GEMECS and Universal Coal provided to Mindset
- The 2012 SAMREC Mineral Resource and Ore Reserve Report Compiled by Exxaro's internal geological department
- The final Middeldrift resource estimates were based on the estimates provided by Universal Coal from their integrated model

The resources as determined by Universal Coal's integrated model were higher than reflected in Table 4-9 on page 48. Table 4-9 excluded resources where the coal qualities were too low to allow for the economic mining and processing of those resources.

The resource categorisation for each seam is shown in Table 4-9 on page 48 and the gross tonnes in situ (GTIS) and total tonnes in situ (TTIS) with the raw air-dried qualities are shown for each seam in each mining area is shown in Table 4-10 on page 49.

Table 4-9: Project Resource Classification

	Measured			Indicated			Inferred			Total	
Seam	**GTIS**	**Geological Losses (%)**	**TTIS**	**GTIS**	**Geological Losses (%)**	**TTIS**	**GTIS**	**Geological Losses (%)**	**TTIS**	**GTIS**	**TTIS**
S5	6,291	10%	5,662	-	-	-	-	-	-	**6,291**	**5,662**
S4U	1,448,435	10%	1,303,592	-	-	-	-	-	-	**1,448,435**	**1,303,592**
S4L	3,150,729	10%	2,835,656	-	-	-	-	-	-	**3,150,729**	**2,835,656**
S2U	15,695,415	10%	14,125,874	1,322,616	10%	1,190,354	-	-	-	**17,018,031**	**15,316,228**
S2L	30,236,833	10%	27,213,150	1,388,647	10%	1,249,782	-	-	-	**31,625,480**	**28,462,932**
S2A	1,476,872	10%	1,329,185	-	-	-	-	-	-	**1,476,872**	**1,329,185**
S1	25,995,516	10%	23,395,964	571,997	10%	514,797	6,497,738	10%	5,847,964	**33,065,251**	**29,758,726**
SA1	3,771,692	10%	3,394,523	-	-	-	-	-	-	**3,771,692**	**3,394,523**
Total Project	**81,781,783**		**73,603,605**	**3,283,260**		**2,954,934**	**6,497,738**		**5,847,964**	**91,562,781**	**82,406,503**

Table 4-10: Raw Coal Resource Statement – Resources (Qualities are Air-dried)

Seam	GTIS (Mt[1])	GL[2] (%)	TTIS (Mt)	CV (MJ/kg)	IM (%)	Ash (%)	VM (%)	TS (%)	Phos (%)	FC (%)
Roodekop Opencast										
S2U	4,962,977	10.0%	4,466,679	17.93	2.80	36.00	18.70	0.80	0.00	41.70
S2L	11,239,779		10,115,801	19.30	2.70	33.40	22.70	1.10	0.00	-
S1	3,753,319		3,377,987	20.90	2.80	30.30	19.70	0.90	0.00	-
S1A	3,764,296		3,387,866	23.00	2.60	25.70	26.00	1.20	0.00	-
Roodekop OC[3]	**23,720,371**		**21,348,334**							
NCC Diepspruit Opencast										
S2U	7,215,343	10.0%	6,493,809	18.11	2.49	37.23	19.03	0.73	0.055	40.47
S2L	5,947,945		5,353,151	20.65	2.41	31.05	21.90	0.93	0.050	43.66
S1	5,219,969		4,697,972	22.27	2.15	28.87	23.39	0.94	0.018	44.62
NCC OC	**18,383,257**		**16,544,931**							
NCC Diepspruit Underground										
S2L	9,544,312	10.0%	8,589,881	23.88	2.20	23.94	26.17	1.28	0.05	46.36
S1	20,758,168		18,682,351	21.20	1.87	31.48	22.11	0.63	0.03	43.89
NCC UG[4]	**30,302,480**		**27,272,232**							
NCC Middeldrift Opencast										
S5	6,291	10.0%	5,662	29.50	3.50	9.70	31.50	0.64	0.00	54.66
S4U	1,448,435		1,303,592	20.90	2.30	32.20	23.00	1.33	0.00	41.17

[1] Mt = Million Tonnes
[2] GL = Geological Losses
[3] OC = Opencast
[4] UG = Underground

Seam	GTIS (Mt[1])	GL[2] (%)	TTIS (Mt)	CV (MJ/kg)	IM (%)	Ash (%)	VM (%)	TS (%)	Phos (%)	FC (%)
S4L	3,150,729		2,835,656	24.70	2.80	21.20	23.50	0.97	0.00	51.53
S2U	4,839,711		4,355,740	19.80	2.20	33.90	19.30	0.60	0.06	43.94
S2L	4,893,444		4,404,100	22.60	2.40	27.60	23.80	0.87	0.05	45.28
S2A	1,476,872		1,329,185	23.70	2.10	25.00	25.30	1.72	0.00	45.88
S1	3,333,795		3,000,416	25.00	2.30	21.60	25.30	1.05	0.24	49.51
S1A	7,396		6,656	26.30	1.80	19.70	28.90	1.04	0.00	48.56
Middeldrift OC	**19,156,673**		**17,241,006**							
Total Project	**91,562,781**		**82,406,503**							

5. Regulation 11 (1) (e)
Details of the Market for, the Market Requirements, and Pricing in Respect of the Mineral Concerned

5.3. List of Products and its Proportionate Quantities

Table 5-1 reflects the intended market and average annual split between the markets.

Table 5-1: Annual Product Table

Product	Total (tonnes) per Annum (average)	Proportion (%)
Eskom Product	2,000,000	81%
Low Phos 18 % Ash Product	480,000	19%
Total (tonnes)	**2,480,000**	**100%**

5.4. Market for Each Specific Product in terms of Local, Regional or International

Due to the multiple seams planned to be mined and the wide range of raw qualities, the following product options were considered:

Option 1 entails:

- Producing an Eskom 24 % Ash and < 1 % Sulphur product
- A 15 % Ash Export product
- An 18 % Ash, low Phos product for the domestic metallurgical market

Option 02 entails the scenario of producing a 24 % Ash Eskom product as the primary product, with an 18 % Ash, low Phos metallurgical product, postponing the 15 % Ash Export product to the latter part of the Project life.

The criteria listed below informed the decision to select Option 2 as the favoured approach for the NCC Project:

- The price for the 15 % Ash Export coal (RB1 Specification) had reduced significantly, down to below (US Dollar) $ 60 per tonne.
- The cost of underground mining is substantially higher than the cost of opencast mining.
- Mining the S1 from underground from only Year 06 for the Eskom product allows the S2L to be reserved for later mining from the existing underground works, when the export price has recovered to higher levels.
- For Option 1, capital expenditure will be required for refurbishment of the three exiting washing plants to ensure reliable and sustainable coal washing operations. For Option 2, only two of the three plants need to be refurbished and recommissioned.

- The target Eskom market is the Kriel Power Station that requires a coal product with an Ash content of 24 % or lower. The Project is situated close to the Kriel Power Station and a premium price can be expected without the price fluctuation risks associated with export coal.

Although the Kriel Power Station is earmarked as the target market, Eskom might decide to supply one of its other power stations, for example Komati Power Station. This would not affect the proposed strategy.

Universal Coal's strategy is therefore a response to the South African Coal Roadmap's identified challenge of a shortfall of coal being available for power stations. Furthermore, the advantages for the Project Owners of producing an Eskom-only product for Kriel Power Station are:

- No siding required
- Product in demand from Eskom for Kriel Power Station
- Product will demand premium price
- Price certainty in future with Eskom
- Simplified mining operation and the three seams dedicated to the Eskom supply can be stock pilled together
- Single stage washing process
- Completely suited to a Junior Miner / Mid-tier coal mining company approach
- Highest internal rate of return (IRR) and net present value (NPV)
- Lowest capital option

5.5. Summary of Product Consumers

5.5.1. Domestic Market

Coal plays an important role in the South African economy, and is the primary energy source for electricity generation. It is the feedstock for producing a substantial proportion of the country's liquid fuels. Coal provides a considerable source of foreign revenue from exports, representing over South African Rand (ZAR) 50.5 Billion. It is also responsible for high levels of direct and indirect employment in South Africa. About 78,600 people are employed directly in coal mining alone.

Given South Africa's abundant coal reserves, including those in the Waterberg basin, and the existing capital invested along the coal value chain, South Africa is likely to continue to include coal as part of its energy mix. Coal has the potential for continuing to provide secure and affordable energy supply, extending employment and increasing export revenues. These benefits are particularly relevant in light of South Africa's development priorities of job creation and economic growth.

Nonetheless, the coal value chain faces an uncertain future, which will be determined by a number of interrelated economic, political, social, environmental, financial, and technical factors.

5.5.2. Export Market

In response to the emergence of the Pacific thermal coal export market over the last decade, South Africa has pivoted from sending less than 20 % of its coal exports to Asia in 2003 to sending 85 % in 2012. South Africa has become an important supplier to the Indian market which, like China, accepts lower quality coal than do many European importers. Thanks to its competitive positioning on the global cost curve, supply analysis estimates that with a price of $ 75 per tonne, South African potential thermal coal exports may decline to 56.4 Mtpa (relative to 2014 capacity of nearly 80 Million tonnes per annum (Mtpa)). Despite competitive supply costs and a 30 Billion tonnes of remaining reserves however, expansion of South Africa's thermal coal exports is constrained by:

- Relatively limited remaining coal reserves in the traditional mining areas around the Witbank, Kriel, and Ermelo Coalfields
- Infrastructure bottlenecks (i.e. rail links to the RBCT) hamper development of other coal reserves such as those in the Waterberg Coalfield

5.6. Summary of Customer Specifications and Details of any Proposed Beneficiation of the Products

5.6.1. Eskom Product

The customer for the primary product will be Eskom and specifically Kriel Power Station. The specifications for Kriel Power Station are the following:

Table 5-2: Eskom Product Specifications

Quality	Unit	Eskom Specification
Calorific Value	MJ/kg	23.5
Ash	%	24.0
Sulphur	%	1.0 Maximum
Volatile Matter	%	22.0

The Eskom product will be produced by washing the run of mine (ROM) coal from all the seams, except the S1A, at an RD of 1.8 at the NCC coal handling and processing plant (CHPP). This will ensure the minimum quality specifications for Eskom is achieved on a continuous basis. The product destined for Eskom will be analysed daily basis and pre-qualified before dispatch to Eskom.

5.6.2. Low Phos 18 % Ash Product

The S1A will be washed separately for an 18 % Ash low Phos product for the metallurgical markets. The metallurgical market requires a sized pea or nut product for which it pays a premium. The washed low Phos coal will be screened for a (plus) + 6 mm (minus) - 20 mm pea product and a + 20 mm -40 mm nut product. The – 6 mm product will be blended with the Eskom product. The blending will enhance this product as the Ash is at 18 %.

Table 5-3: Product Yields

Products	Yield per Annum (%)	CV (MJ/kg)
Eskom	65.07	23.5
Low Phos 15% Ash	63.96	26.25

5.7. Summary of Infrastructure Requirements such as Roads, Rail, Electricity and Water

5.7.1. Mine Infrastructure

5.7.1.1. Opencast Mining Infrastructure

The following infrastructure is required for the establishment of the opencast mining operations:

- Pit access ramps
- Haul roads
- Waste dump areas for topsoil, soft overburden, and hard overburden (includes interburden)
- ROM stockpiles for each of the four seams
- Clean water cut-off canals around the:
  - ROM stockpile area, including crushing
  - Contractors laydown area
  - Along the haul roads
  - Around the waste dumps
- Dirty water catchment drains at the:
  - ROM stockpile area, including crushing
  - Contractors laydown area
  - Along the haul roads
- In-pit sumps for water management
- Pollution control dam (PCD)
- Piping system for water management
- Mining contractor's laydown area (compacted pads for the purpose of placing and/ or erecting offices, workshops, diesel farm, etc.)
- Waste facility pad

The infrastructure listed above will be established by the mining contractor and is included in the mining tenders received from the mining contractors.

The infrastructure that needs to be provided or constructed by Universal Coal is as follow:

- Compacted earth pads for the mining contractors laydown area
- Offices - upgrade existing offices at NCC Diepspruit Mine complex for senior personnel
- Change house - upgrade existing change house at NCC Diepspruit Mine complex for the use of all personnel at the start and end of a shift

- Upgrade of the D1622 district road, commonly known as the 'Exxaro road', from the opencast haul road intersection to the start of the portion of the Exxaro road where it joins the road from the NCC Diepspruit underground ROM stockpile
- Access road from the Exxaro road to the opencast ROM stockpile area including the intersection between these two roads
- Primary crushing facility at the opencast ROM stockpile
- Weighbridge facility
- Opencast PCD
- Potable water supply point
- Sewage connection point and septic tank
- A power supply point to the opencast contractor's laydown area and the PCD pump station

The primary crushing facility at the opencast ROM area will consist of underground feeder breakers which will crush the ROM coal to – 250 mm before it is loaded onto the road haul trucks

5.7.1.2. Underground Mining Infrastructure

The mining infrastructure that needs to be established and/ or refurbished to enable the production operations to be conducted is the following:

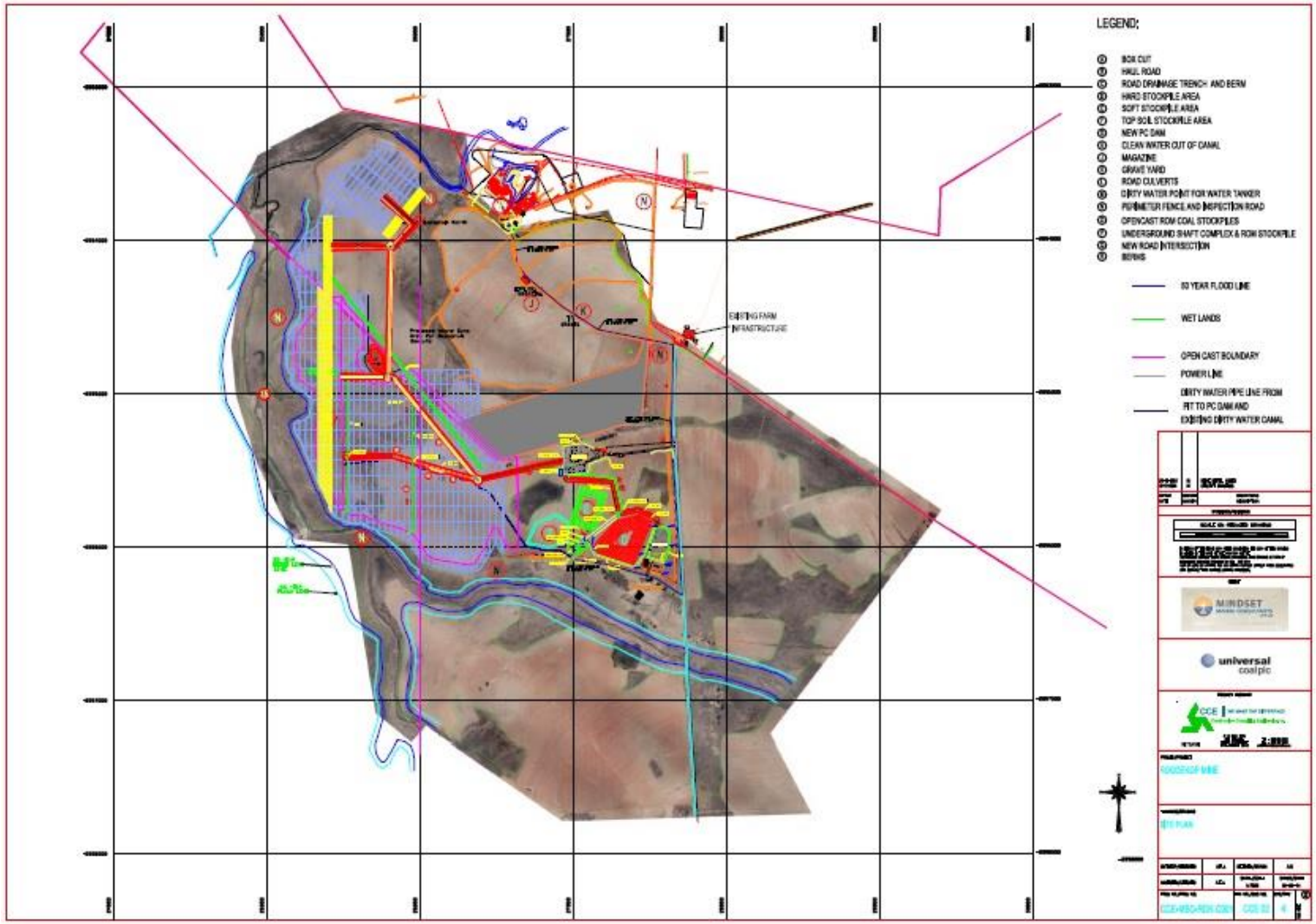
- Access road to the adit complex (existing)
- Haul road from the ROM stockpile to the R547 (existing)
- ROM stockpiles (existing)
- Weighbridge (installed but will require upgrading)
- Sumps for water management (existing)
- Piping system for water management
- Lamp room (existing)
- Change house (existing)
- Offices (existing)
- Stores (existing)
- Workshop (existing)
- Ventilation fans (existing)
- PCD (existing)

The required surface infrastructure such as offices, stores facility, workshops, change house, and lamp room already exists at NCC Diepspruit. Some painting and renovating will however be required.

The NCC Diepspruit adit has an existing Eskom power supply of 5,000 kilovolt amperes (kVA), which is sufficient for supplying the planned one continuous miner (CM) production section at start-up with the conveyor reticulation, ventilation fans, and the surface complex.

The general layout of the opencast and underground mining areas is shown in Figure 5-1 on page 56.

Figure 5-1: Opencast and Underground Mine Infrastructure



5.7.1.3. Coal Handling and Processing Plant Infrastructure

The CHPP consists of three independent single stage modules. As per current planning, all three modules will be refurbished for coal handling and processing.

Each module is dedicated to accept raw coal from specified seams in the mining operation to produce products for specific markets. The following infrastructure is required for the CHPP area:

- Power supply of 2,500 kilovolt amperes (kVA) (existing)
- Potable water supply (existing)
- Raw make-up water supply (existing)
- Offices (existing)
- Workshops (existing)
- Stores (exiting)
- Change house (existing)
- Access roads (existing)
- Access road to the Eskom product loading facility and the metallurgical product stockpiles
- Traffic control circles
- Weighbridges
- Product Stockpiles
- Conveyor belts

Power for the CHPP will be from an existing Eskom power supply of 2,500 kVA which will be serviced and tested before the CHPP upgrades and refurbishments commence.

There is an existing discard dump to the north of the CHPP. The discard will be hauled by road to this discard dump for placement and compaction. Additional run-off water drains need to be constructed around this discard dump for managing the polluted run-off water. The construction of the drains is a result of a directive issued by the Department of Water Affairs (DWA). The drains will be constructed during the time that the CHPP is upgraded and refurbished.

5.7.2. Power Supply

The NCC Diepspruit underground adit complex, where underground mining will be conducted, has an existing Eskom supply of 5,000 kVA.

Power will be supplied from the NCC Diepspruit underground adit complex to the opencast mining contractor's camp. An 11 kilovolt (kV) ACSR 'MINK' Single Pole Overhead Power Line will be constructed by Universal Coal from the Diepspruit adit substation to the mining contractor's camp.

The voltage will be transformed from 11 kV to 1,000 volts (V) and 400 V through the installation of a mini-substation. The installed capacity will not exceed 1,500 kVA. From the mini-substation, power will be distributed to the workshop, diesel storage facility, security and weighbridge site, PCD pump station, and high mast lights through low voltage steel wired armoured cables. A distribution board will be supplied at each point to include the correct protection settings for each installation.

The primary crushing facility at the mining operations will be supplied from the mini-substation with 1,000 V. The SWA supply cable will terminate in a Motor Control Centre to control the operation and provide the necessary electrical protection to the crushing facility motors.

The CHPP has an existing Eskom power supply of 2,500 kVA which will be serviced and tested before the CHPP upgrades and refurbishments commence.

5.7.3. Water Supply

Potable water is also already supplied to the NCC Diepspruit adit complex from the NCC water treatment plant which receives water from the Olifants River.

For the opencast mining contractor's camp area, Universal Coal is establishing a groundwater borehole that will supply the potable water.

The potable water supply currently supplying the CHPP and surface office and stores complex requires no upgrade or refurbishment work and will continue to supply potable water to these areas.

The CHPP raw makeup water supply is not currently in use and will have to be serviced and reinstated. This will be completed by Universal Coal before the work on the CHPP commences.

5.7.4. Water Management

The opencast mining area, the underground mining area, and the CHPP area will each have its own water management infrastructure.

5.7.4.1. Opencast Water Management

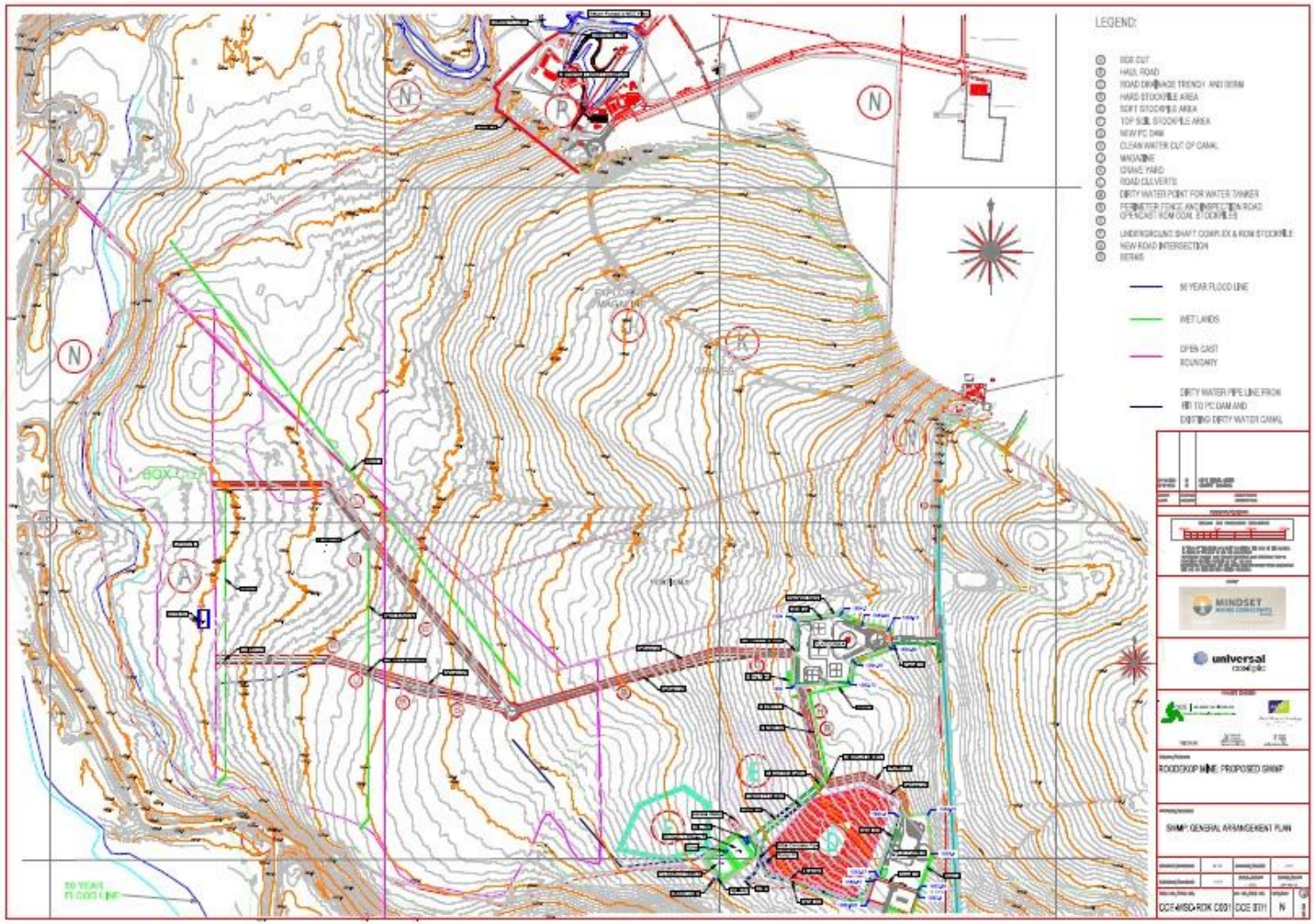
The opencast infrastructure area will have canals or berms to prevent clean run-off water from reaching the areas classified as pollution areas. Within each operational area, (haul roads, stockpile area, contractor's camp, and mining pit) construction of dirty water capturing drains will allow dirty water to be collected in sumps and either gravitated or pumped to the opencast PCD.

The water captured in the PCD will be used for dust suppression along the haul roads and at the ROM stockpile area. Natural evaporation will take place and in the case of rain in excess of a 50-year flood design, dirty water from the PCD will be pumped to the PCD at NCC Diepspruit underground complex. From the underground PCD, any excess water can be pumped into the old sealed-off underground workings.

No dirty water will be released from the opencast area into any natural waterway.

The general surface water-management plan is shown in Figure 5-2 on page 59.

Figure 5-2: Surface Water Management Plan



5.7.4.2. Underground Water Management

The infrastructure for water management in the underground area exists complete with pumping systems and a PCD. Once operational, any excess water from the underground workings will be pumped to this PCD. The adit area has a sump at the bottom where run-off water is captured before it enters the underground workings. This water is also pumped to the PCD.

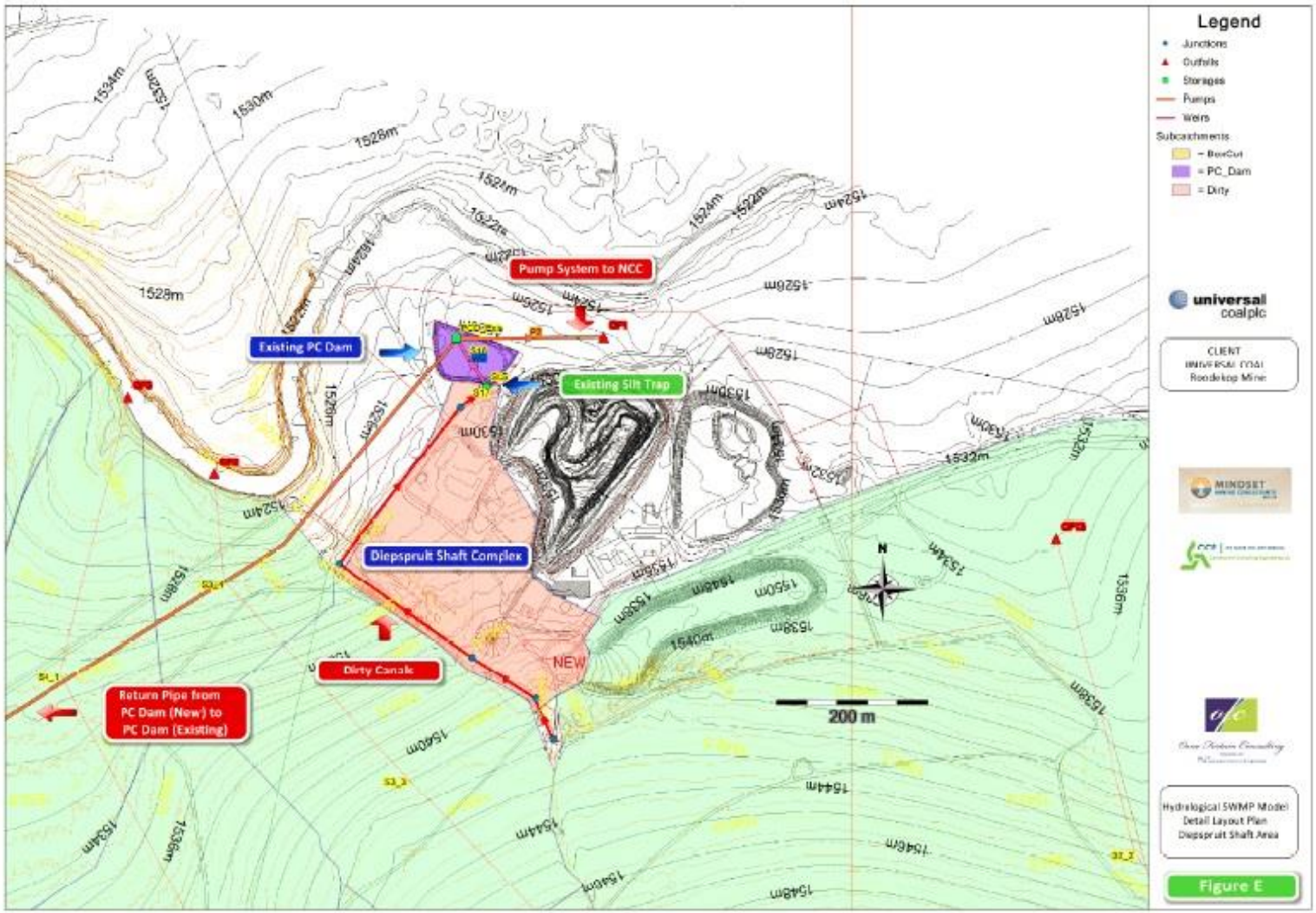
Water from the PCD will be used for dust suppression on the surface area and any excess water from the PCD will be pumped into the sealed-off old underground workings.

Clean water will be pumped underground for use in cooling the mining equipment electric motors and for dust suppression during the mining operations. Most of this water is loaded with the coal and conveyed out as surface water on the coal. Any excess water will be collected and pumped out with the other nuisance water to the PCD.

The underground complex has an existing potable water connection.

The NCC area water-management plan layout is shown in Figure 5-3 on page 61.

Figure 5-3: NCC Underground Water Management Plan



5.7.5. Fuel and Lube Facilities

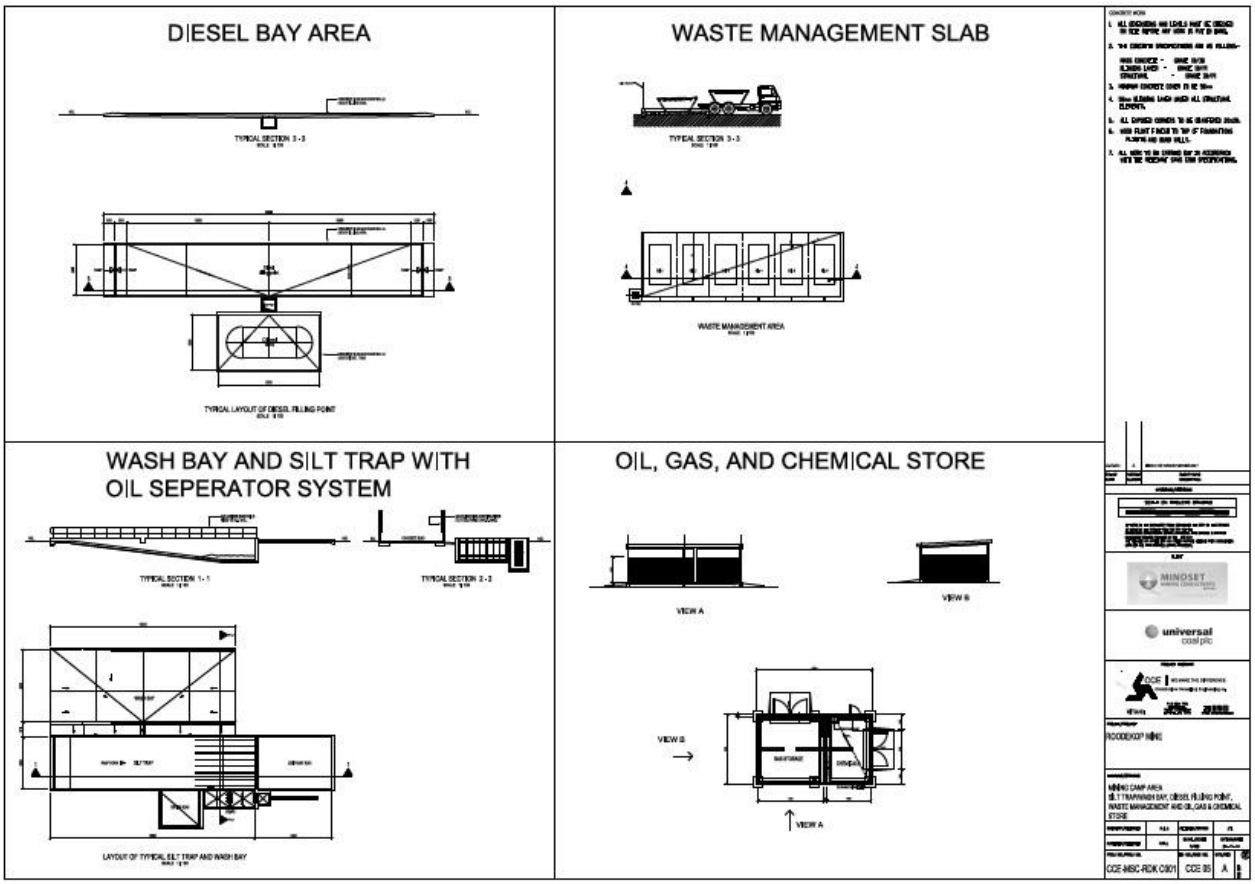
At the opencast contractor's laydown area, the following facilities will be established by the contractor:

- Diesel bay area
- Wash bay area with a silt trap and oil separator
- Oil, gas, and chemical store
- Waste management slab for the placing of the necessary waste disposal bins

These facilities will be constructed in accordance with the designs as shown in Figure 5-4 below. Each facility is designed to ensure that water contaminated with hazardous fluids (diesel and other lubricants used on site) is captured and channelled to the oil separation plant for purification prior to being pumped to the PCD. The oil recovered from the purification process will be stored in oil containers and disposed of according to the waste management plan.

At the underground adit complex, the fuel and lube facilities as discussed for the opencast already exist. The facilities will be maintained within the care and maintenance strategy of the NCC complex to ensure operational readiness for when the underground mining commences. At the CHPP area complex, the fuel and lube facilities as discussed under the opencast section already exist. These facilities will be reviewed for operational readiness as part of the plant refurbishment.

Figure 5-4: Fuel and Lube Facilities



5.7.6. Access Roads

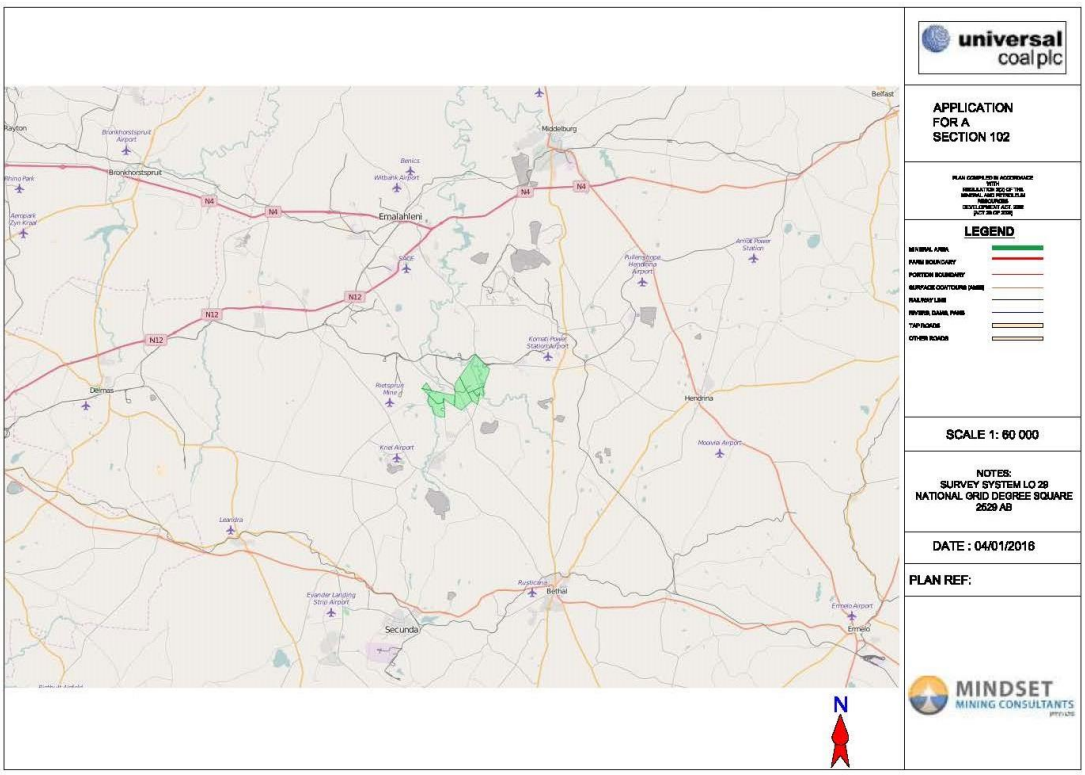
The Project area is well served with paved provincial roads as well as with a district road, as shown in Map 5-1 below.

The main road serving the Project area is the R547 paved road, which runs south of the CHPP area and north of the underground and opencast areas. This road links to the towns of Witbank and Bethal and crosses the R544 which in turn leads to the town of Kriel. The R544 links up to the R545 Ogies to Bethal road and both the Kriel and Matla power stations can be reached from the R545 paved road.

To the west of the opencast area is a paved road that leads off the R547 and connects to the R545 paved road which connects the town of Ogies with Bethal. A third paved road, the Van Dyksdrif road, leads off the R547 in a north-eastern direction, and runs past the CHPP with an access road leading from this road to the CHPP.

The last road, the Exxaro district road, is a gravel road that runs north to south past the eastern side of both the underground and opencast mining areas and connects to the R547 in the north and to the R544 to the south.

Map 5-1: Access Road to the Mine



Based on the roads that serve the Project area, no main access roads need to be constructed.

There is an existing access road to the CHPP area. The access road includes roads to the various raw feed stockpiles. The following new road works will be constructed at the CHPP:

- A road to the Eskom loading facility
- Currently there is a rail spur to this load-out facility
- An additional gravel road suitable for use by road haul trucks will be constructed
- Upgrade of all the roads to and from the various stockpiles and discard loading facilities
- Establishment of traffic circles to ensure the safe and smooth flow of traffic

Three weighbridges will be installed on the access road close to the beginning of the road. These will be used to weigh the incoming raw feed coal trucks as well as the product trucks leaving the CHPP area. The third weighbridge will allow additional weighing of traffic in both directions to ensure reduced waiting times for the road trucks.

5.8. Summary of Other Information Applied that may Influence Price

5.8.1. Offices, Workshops and Change Houses

As set out under Section 5.7, all the required general buildings and facilities for the underground and CHPP exist at the respective areas. Existing buildings and facilities need minor repairs and maintenance before the operations start. These tasks will be performed by contactors appointed by the Owner and the costs for this are included in the establishment capital.

For the opencast lay-down area, the Owner will construct the base area and water management facilities. The opencast mining contractor will make use of the existing facilities at NCC Diepspruit and where necessary will establish additional offices, stores and workshops facilities. The costs for these are included in the establishment capital which forms part of the initial capital.

The sewage plant on the mine is operational, but with the increase in labour and consequent duty on the plant, measures have begun to increase the capacity of the plant. More importantly, the planned changes will also comply with new environmental legislation and the Water Use License.

5.8.2. Manpower and Social Responsibility

Given Universal Coal's business model, the recruitment of mine personnel will be handled and managed by the Human Resources (HR) function within each of the appointed contractor's organisations, but subject to Universal Coal's HR Policies, which are linked to the Environmental Management Programme (EMP), Social Labour Plan (SLP), Occupational Health and Safety (OHS) Plan, and Universal Coal's corporate policies.

It is Universal Coal policy to put in place systems and procedures to ensure that:

- There is limited or no cross-poaching of employees between mine operators, unless agreed to by Universal Coal.
- Adherence to commitments made in the SLP, including training, development, and demobilisation.

- Adherence to commitments made in the OHS plan.
- Employees released from one organisation on the basis of incompetence, under-performance, or disciplinary reasons are not employed by another mine operator.
- Salaries and conditions of employment are competitive and fair, relative to similar organisations in the area.
- Universal Coal attracts and retains the right people within its own organisational structure.
- All mine employees are appropriately screened (criminal, drugs, and other) before entering service.

5.9. The Price to be used in the Cash Flow Forecast

Two products will be produced and sold. A high grade 24 % Ash product to Eskom and an 18% Ash low Phos sized product to the metallurgical industry.

An Eskom product price of ZAR 19.50 per gigajoule (GJ), based on initial negotiations with Eskom, was used in the cash flow calculations. This resulted in an average price of ZAR 459.21/sales tonne over the project life.

For the low Phos sized product, a price of ZAR 650.00/sales tonne was used in the cash flow calculations. The price is based on market research and preliminary negotiations with potential customers.

Table 5-4 below sets out the product prices.

Table 5-4: Product Price

Products	Price ZAR/GJ	Price ZAR/Sales Tonne
Eskom 24 % Ash Product - Average	19.50	459.21
Low Phos 18% Ash Sized Product	25.00	650.00

5.10. Confirmation of Specialist Market Analysis

A marketing study was compiled by Mindset Mining Consultants as part of the BFS. The Marketing chapter of the BFS is included as Annexure 15.

6. Regulation 11 (1) (f)

Details with regard to the Applicable Timeframes and Scheduling of Various Implementation Phases and Technically Justified Estimate of Period Required

6.1. Timeframes and Scheduling of Implementation Phases

6.1.1. Explanation of Time Taken to Develop the Mine and Commence Production

Table 6-1 below indicates the milestone dates for key activities during the development of the mine.

Table 6-1: Milestones Timeframes

Activity	Timeframe	Comments
1. Section 102 Mining Right Extension application	Jan 2016	Existing Mining Right for NCC and Roodekop. Mining can continue under the existing MRs.
2. Opencast Mining		
2.1 Adjudication of opencast mining contract	Completed	
2.2 Site establishment	Jan 2016	Includes contractors camp, delivery of equipment, staffing etc.
2.3 Establishment of opencast infrastructure	Jan 2016	Haul roads, ROM stockpile, hard and soft overburden dumps, PCD
2.4 Establishment of the box cut	Feb 2016	
2.5 First coal production	Mar 2016	
2.6 Steady state opencast production	Jul 2016	
3. Recommissioning of Existing Underground Workings		
3.1 Commission shaft and underground conveyors	May 2016	
3.2 Support of seam roof in all areas to be recommissioned for underground mining and sweep travel, belt and return airways	Oct 2015 to Apr 2016	Complete roof support, sweeping
3.3 Issue request for tenders for underground mining contract	Feb 2016	
3.4 Adjudication of underground mining contract	Mar 2016	
3.5 Site Establishment - underground mining contractor	Mar 2016	
3.6 Prepare 1 Seam for production	Mar 2016 to Jun 2016	Develop decline to S1 and establish main panel for production section
3.7 Underground production	Jun 2016	First coal from CM Section 1
4. Coal Handling and Processing Plant		
4.1 Issue request for tenders for upgrade and refurbishment of CHPP	Completed	
4.2 Adjudicate plant upgrade and refurbishment contract	2015 Completed	
4.3 Issue request for tenders for CHPP operations	Completed	Tenders received and in the process of

Activity	Timeframe	Comments
		adjudicating
4.4 Adjudicate plant operating contract	Completed	
4.5 Upgrade and refurbishment of CHPP	Jan 2016 to Apr 2016	Site establishment when mining establishes
4.6 Commissioning of CHPP and processing of coal	Mar 2016	
5. Infrastructure		
5.1 Power supply to opencast	Jan 2016 to Mar 2016	Erect overhead power line from Diepspruit Adit complex to opencast contractor's lay-down yard
5.2 Access roads	Jan 2016 to Feb 2016	Construct road to product loading area at CHPP

The NCC Project consists of the NCC Mining Right extended by the addition of the Roodekop Mining Right. The area covered by the NCC Mining Right includes the existing CHPP and the existing Diepspruit underground mine. The existing Diepspruit underground mine is an established mine with a decline shaft and a conveyor system complete with shaft conveyor and ventilation fans.

The area covered by the Roodekop MR is a greenfields area where no previous mining has been conducted. Due to the favourable strip ratios at Roodekop, the mining costs will be lower than the underground mining costs. It is therefore important that the opencast mining operations are established and moved to steady state as early as possible after the mining activities start.

For the first 12 years, the production from the opencast will be ~ 77 % of the total production, with underground producing ~ 23 % of the total.

Opencast mining will commence at Roodekop. For this purpose, an opencast mining contractor has been appointed and the opencast mining contractor will be responsible to establish the infrastructure required for the production and handling of coal as well as for complying with all environmental requirements set out in the EMP.

A mining contractor will also be appointed to conduct the underground mining operations. The underground workings of the S2L have been under care and maintenance and are immediately accessible. However, underground mining will be from the S1 below the S2L for the first 12 years. An underground mining contractor needs to be appointed and this process requires about three months. Once the underground mining contractor has been appointed and established on site, the development from the S2L to the S1 will commence. This development and establishment of the continuous miner (CM) production section will extend over a period of three months. First coal from underground is expected in June 2016

The total process of adjudicating the CHPP upgrade and refurbishment contract as well as conducting the upgrade and refurbishment commenced in September 2015. The process will be completed by March 2016.

6.1.2. Explanation of the Production Build up Period once Production Commences

ROM production will start at the Roodekop opencast in Year 01 mining the S2U, S2L, S1, and S1A. The opencast production will be from a typical truck and shovel strip mining operation. The mining operation will begin with the creation of the box cut with the first coal being produced by Month 03 and full production rates by Month 05. The topsoil, soft overburden, and hard overburden from the box cut will be placed on three different areas prepared for these waste dumps. On completion of the box cut, mining will continue on a roll-over basis placing the next strips overburden back into the previous strip.

The box cut for the Middeldrift area will be created during Year 12, when the last coal is mined at Roodekop. This will allow production to continue uninterrupted when operations are transferred to Middeldrift.

Production from the Diepspruit underground mine, mining the S1 only, will commence shortly after the opencast production starts. The mining method will be bord and pillar mining utilising continuous miners and electric shuttle cars. For the first 11 years, underground production will be from two continuous miner production sections in the S1 only. From Year 12, additional continuous miner sections will be deployed operating in the S2L.

Figure 6-1 below indicates the annual mining schedule over the life of the NCC Project for opencast mining. Figure 6-2 on page 69 indicates the annual mining schedule over the life of the NCC Project for underground mining.

Figure 6-1: Mining Schedule - Opencast

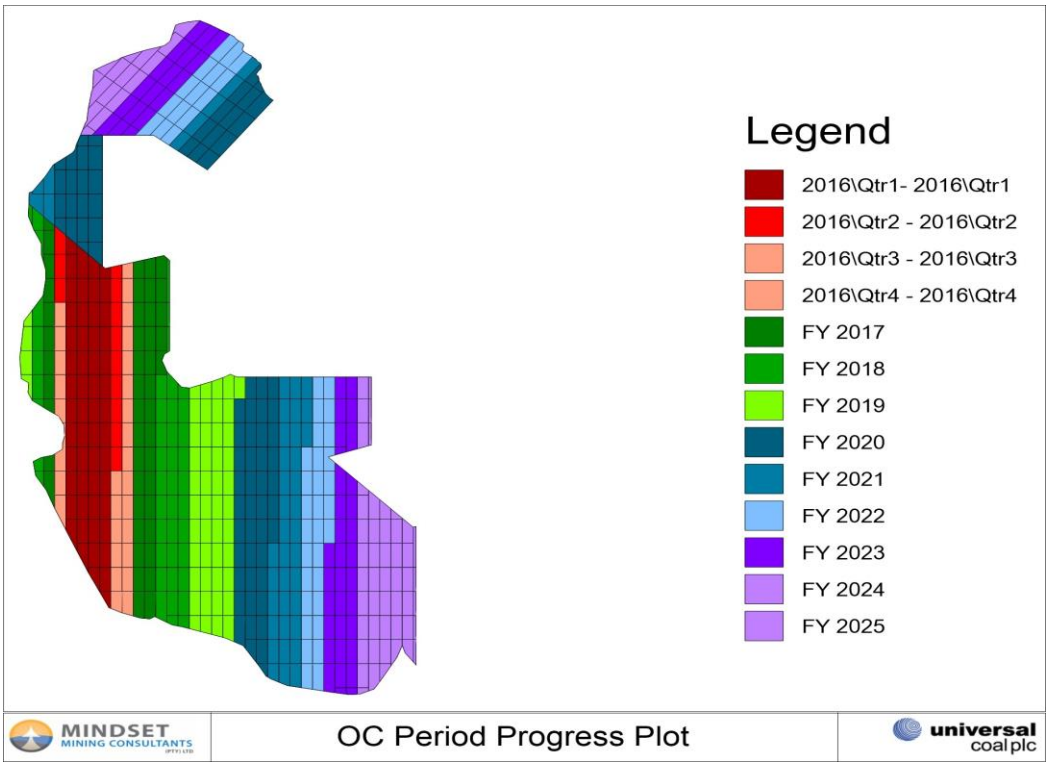
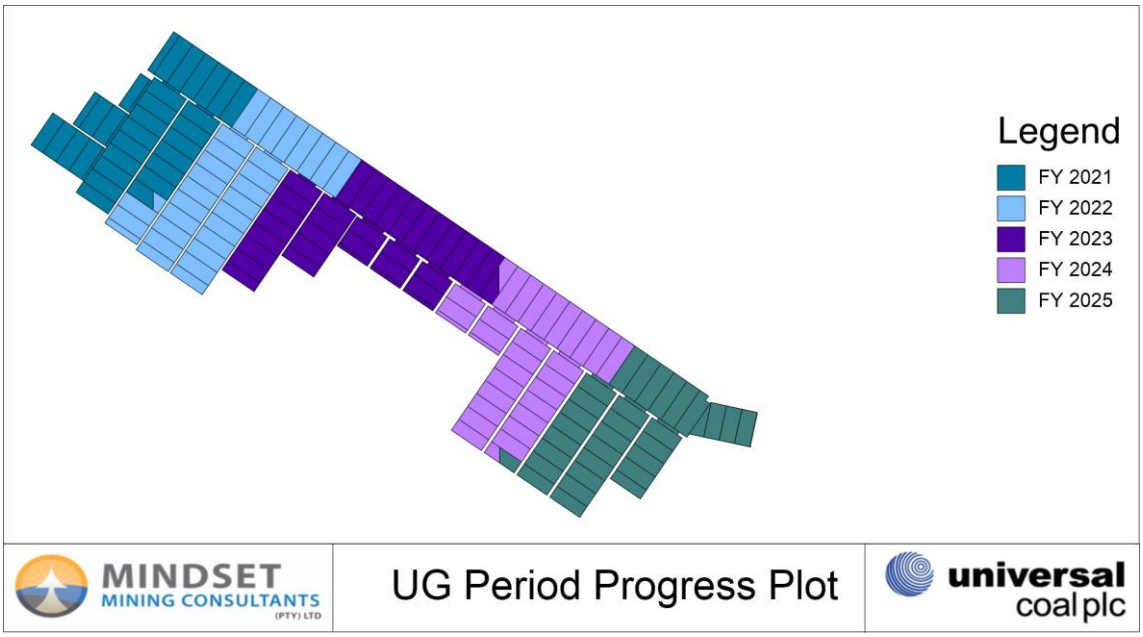


Figure 6-2: Mining Schedule - Underground



6.1.3. Explanation of Production Decline Period

The opencast production will be from the Roodekop area from Year 01 to Year 12 when the Roodekop reserves will be depleted. From Year 13, opencast production will continue at the Middeldrift area until it is depleted in Year 20. During the first three years of opencast mining at Middeldrift (Year 13 to Year 15), two continuous miner sections will be deployed to ensure consistent annual production. From Year 16 only one continuous miner section will produce underground from the S2L. During Year 20, both the Middeldrift opencast and NCC Diepspruit underground reserves will be depleted and mining operations will cease.

6.1.4. Product Production Forecast for Each Year over the Full Period Applied

The product production build-up and forecast is shown in Table 6-4 on page 72.

6.2. Technically Justified Estimate of the Period Required

The mining production levels for the NCC Project were based on the annual quantity and quality of coal required by Eskom. Negotiations with Eskom indicate that this market requires 100,000 tonnes per month of a 24 % Ash product. In the Roodekop area, the S1A has excellent low Phos metallurgical qualities and this Seam will be washed separately to produce a low Ash low Phos product.

6.2.1. Opencast Mining Areas

In the Roodekop Resource area, the strip ratios are favourable for opencast mining. The NCC Resource area also has favourable strip ratios. The NCC Resource can be mined as one opencast operation with the Roodekop resource. This ensures the maximum extraction of these two resource areas. The Middeldrift resource area also has favourable strip ratios for opencast mining operations.

This area is however separated from both the Roodekop and NCC Diepspruit opencast areas by a river and will be mined as a separate opencast operation once the Roodekop and NCC Diepspruit areas have been mined out.

The Roodekop opencast ROM reserves are 18.56 Mt, the NCC Diepspruit opencast has 3.07 Mt and the NCC Middeldrift opencast reserves are 12.23 Mt, for a total 33.39 Mt. The opencast resource to reserve conversion with the modifying factors for Roodekop, NCC Diepspruit, and NCC Middeldrift is shown in Table 6-2 on page 71.

6.2.2. Underground Mining Areas

In the Roodekop resource area, no underground mining is planned. The coal seams in the area are too deep for opencast mining and the poor qualities and seam thicknesses make it uneconomical to mine these seams by underground methods.

The NCC Diepspruit Resource area has an area in the central north where opencast mining is uneconomical. However, both the S2L and S1 have good coal qualities and the seam thickness allows both to be mined at economical rates.

The NCC Diepspruit underground resource to reserve conversion with the modifying factors is shown in Table 6-3 on page 71. The NCC Diepspruit underground reserves total 10.28 Mt, 6.55 Mt in the S1 and 3.73 Mt in the S2L.

This brings the total ROM reserves to 43.68 Mt. The NCC Project is based on supplying Eskom with 100,000 tonnes per month (tpm) of 24 % Ash product.

Based on the ROM and product production schedule shown in Table 6-4 on page 72, a primary Eskom product can be produced for 20 years at 100,000 tpm. During the first 12 years of the life of the NCC Project, an additional secondary low Phos product will also be produced and sold. The mining schedule for both the opencast and underground was designed to allow for a rapid build-up of production and a sharp ramp-down of production at the end of the project life.

The above results in the period required for completion of the reserves is 20 years.

Table 6-2: NCC and Roodekop Opencast Resource to Reserve Conversion

	Roodekop					NCC Diepspruit				NCC Middeldrift							Total Opencast
Coal Seams	S2U	S2L	S1	S1A	Total	S2U	S2L	S1	Total	S4U	S4L	S2U	S2L	S2A	S1	Total	
GTIS (Mt)	3.72	8.15	3.93	2.75	18.56	1.42	0.75	1.01	3.18	1.58	3.57	5.9	3.65	1.34	3.12	19.16	**40.91**
Geological Losses (Mt)	0.19	0.41	0.20	0.14	0.93	0.07	0.04	0.05	0.16	0.16	0.36	0.59	0.37	0.13	0.31	1.916	**3.00**
MTIS (Mt)	3.54	7.75	3.74	2.62	17.63	1.35	0.71	0.96	3.03	1.42	3.21	5.31	3.29	1.20	2.81	17.24	**37.90**
Mining Losses (Mt)	0.09	0.31	0.12	0.10	0.63	0.07	0.04	0.05	0.15	0.43	0.96	1.59	0.99	0.36	0.84	5.173	**5.95**
Dilution (Mt)	0.23	0.32	0.29	0.23	1.08	0.07	0.07	0.06	0.20	0.01	0.03	0.05	0.03	0.01	0.03	0.163	**1.43**
ROM (Mt)	**3.68**	**7.75**	**3.91**	**2.74**	**18.08**	**1.35**	**0.74**	**0.98**	**3.07**	**1.01**	**2.28**	**3.77**	**2.33**	**0.85**	**1.99**	**12.23**	**33.39**

Table 6-3: NCC and Roodekop Underground Resource to Reserve Conversion

	S1	S2L	Total
MTIS (t)	6,477,094	3,519,084	9,996,178
Mining Losses at 5 % (Tonnes)	323,855	175,954	499,809
Contamination	398,665	399,914	798,579
ROMt	**6,551,904**	**3,743,044**	**10,294,948**
Panel Advance Meters	21,158	14,153	35,311
Development Meters	257,067	157,480	414,546
Average In Situ Thickness	2.56	2.20	
Average Contamination Thickness	0.11	0.19	
Average Mining Height	2.66	2.39	

Table 6-4: Mining Production Build-up and Schedule

Product	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Eskom ROM (Tonnes)	1,586,046	1,661,882	1,660,961	1,614,336	1,721,856	1,782,226	1,859,412	1,888,643	1,887,092	1,891,689	1,842,175
Eskom Yield (%)	64.72%	62.70%	64.38%	64.06%	62.99%	62.36%	62.64%	61.76%	61.89%	61.68%	60.81%
Total Eskom Product	**1,026,564**	**1,041,982**	**1,069,394**	**1,034,224**	**1,084,587**	**1,111,451**	**1,164,809**	**1,166,451**	**1,167,899**	**1,166,857**	**1,120,304**
Low Phos ROM (Tonnes)	170,602	358,118	359,039	405,664	298,144	167,774	145,588	116,357	127,908	113,311	167,826
Low Phos Yield (%)	62.06%	59.70%	61.50%	63.69%	65.25%	66.92%	68.18%	66.37%	65.15%	65.41%	65.35%
Low Phos 18% Ash Product (Tonnes)	**105,883**	**213,806**	**220,823**	**258,372**	**194,538**	**112,281**	**99,257**	**77,227**	**83,326**	**74,122**	**109,681**
Total Product (Tonnes)	**1,132,447**	**1,255,788**	**1,290,216**	**1,292,596**	**1,279,125**	**1,223,732**	**1,264,067**	**1,243,678**	**1,251,225**	**1,240,979**	**1,229,986**

Product	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Eskom ROM (Tonnes)	1,683,121	1,435,999	1,447,695	1,642,083	1,439,479	1,363,785	1,522,041	1,465,195	1,447,774	**24,935,792**
Eskom Yield (%)	60.44%	68.14%	68.83%	69.72%	69.10%	67.85%	68.50%	67.84%	65.83%	
Total Eskom Product	**1,017,220**	**1,435,999**	**1,447,695**	**1,642,083**	**1,439,479**	**1,363,785**	**1,522,041**	**1,465,195**	**1,447,774**	**24,935,792**
Low Phos ROM (Tonnes)	322,460	-	-	-	-	-	-	-	-	**2,752,791**
Low Phos Yield (%)	65.59%	-	-	-	-	-	-	-	-	**64%**
Low Phos 18% Ash Product (Tonnes)	**211,492**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,760,809**
Total Product (Tonnes)	**1,228,712**	**1,435,999**	**1,447,695**	**1,642,083**	**1,439,479**	**1,363,785**	**1,522,041**	**1,465,195**	**1,447,774**	**26,696,601**

7. Regulation 11 (1) (g) (i)

Details with regards to Costing of the Mining Technique, Mining Technology, and Production Rates

7.1. Mine Design Map

The general arrangement of the NCC Roodekop opencast and NCC Diepspruit underground areas are shown in Figure 7-1 on page 74.

For the Roodekop opencast, ROM coal will be hauled to an area in the east where a ROM pad will be established, adjacent and to the west of the existing gravel district road. This road, called the Exxaro Road on the maps, runs north to south and links to the R547 paved provincial road to the north of where the opencast ROM stockpiles will be situated. The pad area for the ROM stockpile will include areas for the S2U, S2L, S1, and S1A.

From the planned opencast stockpile areas, a short access road will be constructed to the Exxaro Road. The opencast ROM coal will be hauled along the Exxaro Road to the R547 provincial road. The Exxaro Road, from the Roodekop opencast ROM stockpile area up to where the mine road from the underground ROM stockpile joins it, will require some upgrading and treatment with a dust suppressant. The detail of the opencast ROM stockpile area is shown in Figure 7-2 on page 75.

An underground adit with an access shaft was established at NCC Diepspruit to mine the S2L. A complete surface complex including offices, change house, lamp room, stores, and workshops was established at the adit. Mining operations have been suspended and the shaft complex including the shaft conveyor, underground conveyors, power, and water supply infrastructure, is currently under care and maintenance.

The NCC Diepspruit shaft will be recommissioned and it is planned to reintroduce underground production from the S1, accessed from declines developed from the existing S2L underground workings.

The NCC Diepspruit underground shaft conveyor is elevated to ~15 m that allows for a ROM coal stockpile on surface of 7,000 tonnes. The underground ROM coal will be loaded from this stockpile and road-hauled to the NCC washing plant complex.

From the NCC Diepspruit underground ROM stockpile, there is an existing mine gravel road that connects to the Exxaro Road that runs on the western side of the Project in a north to south direction. The Exxaro Road joins up with the R547 paved road at a T-junction. The mine gravel road from the underground stockpile has been well constructed and treated with a bituminous-based dust suppressant. The Exxaro Road, from where the mine road joins it up to the R547, has also been upgraded and treated with a dust suppressant.

The NCC Diepspruit surface layout with the underground ROM coal stockpile and access road is shown in Figure 7-3 on page 76.

Figure 7-1: Roodekop Opencast and NCC Diepspruit Underground General Arrangement Plan

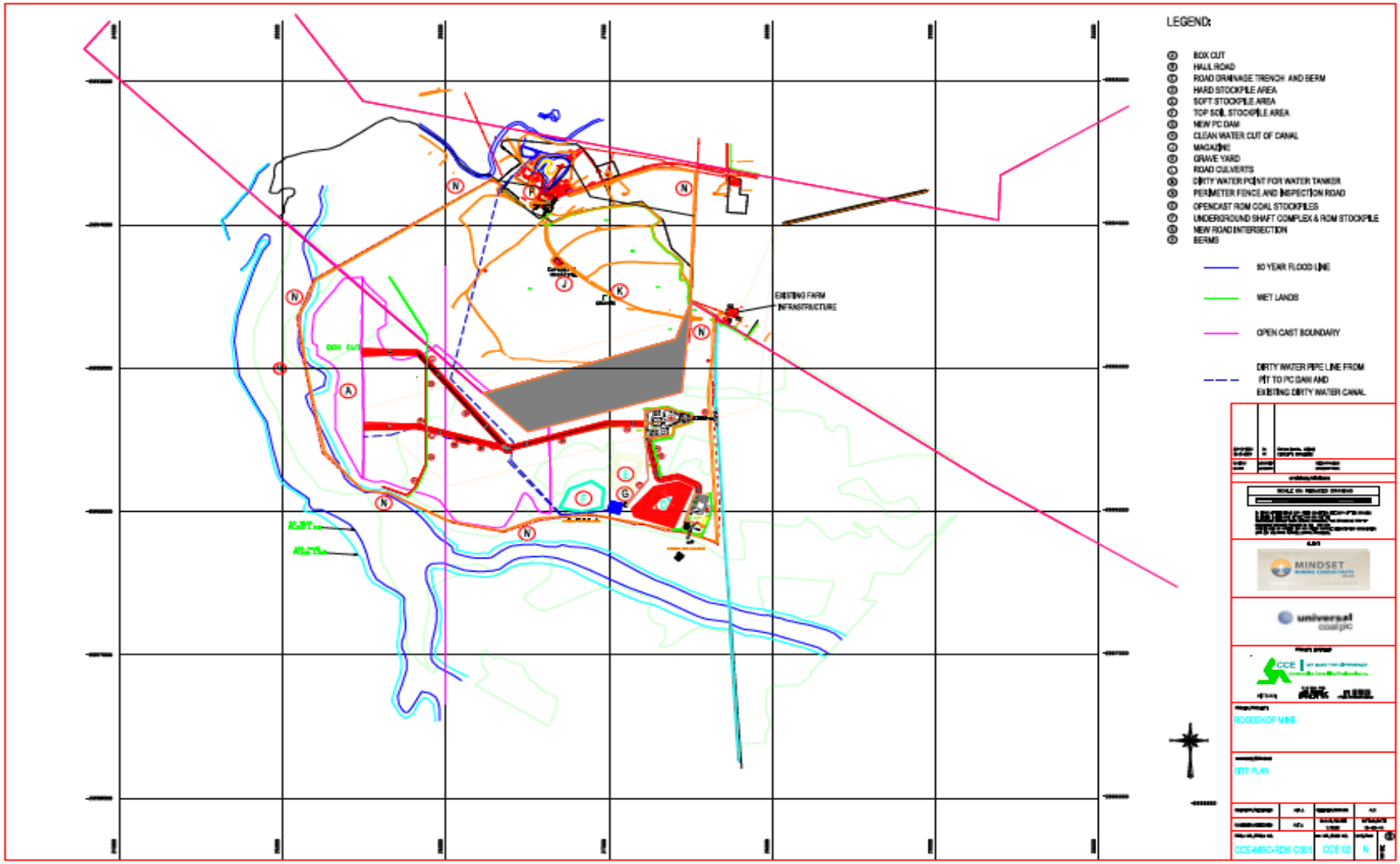


Figure 7-2: Roodekop / NCC Diepspruit Opencast ROM Area Plan

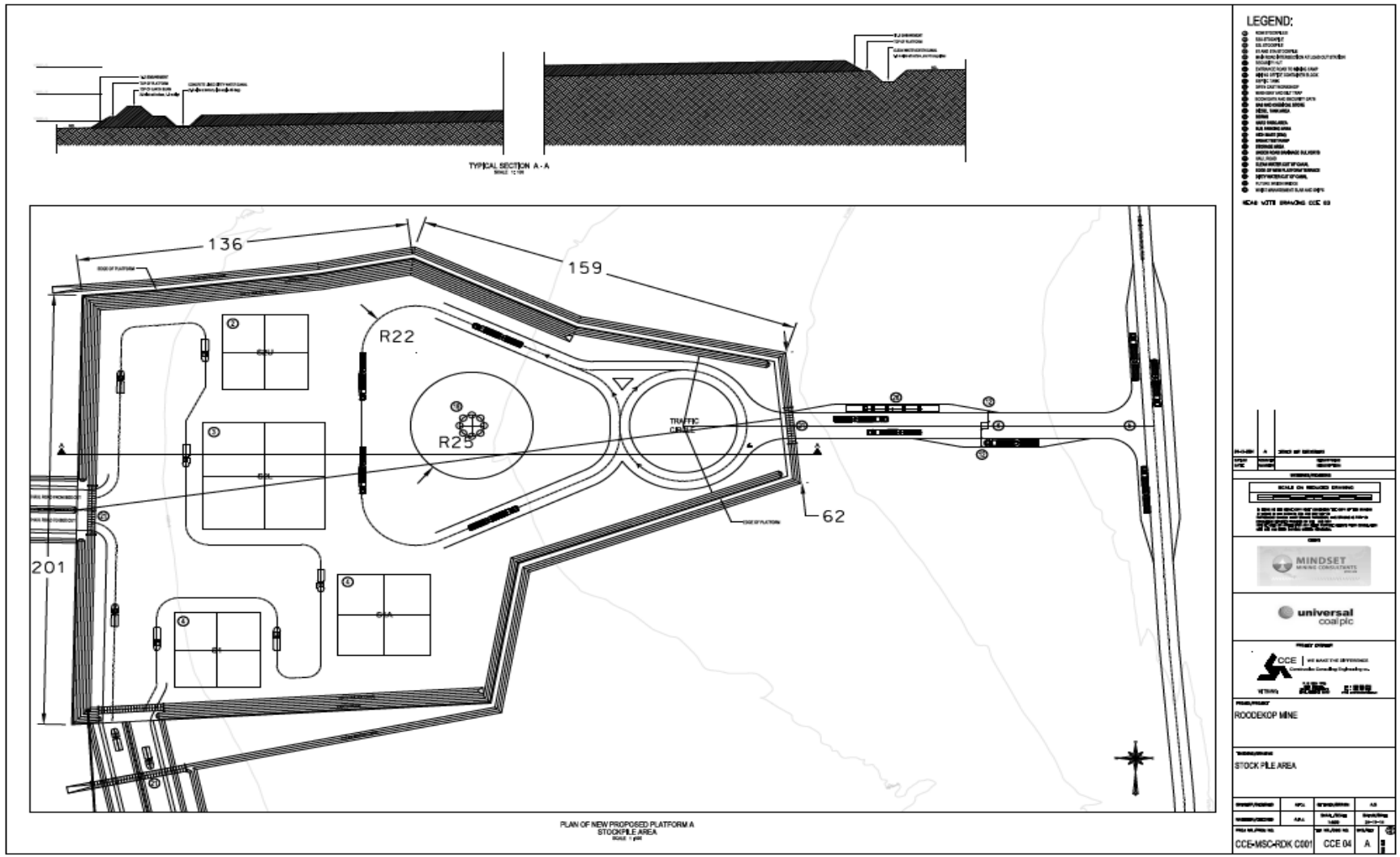
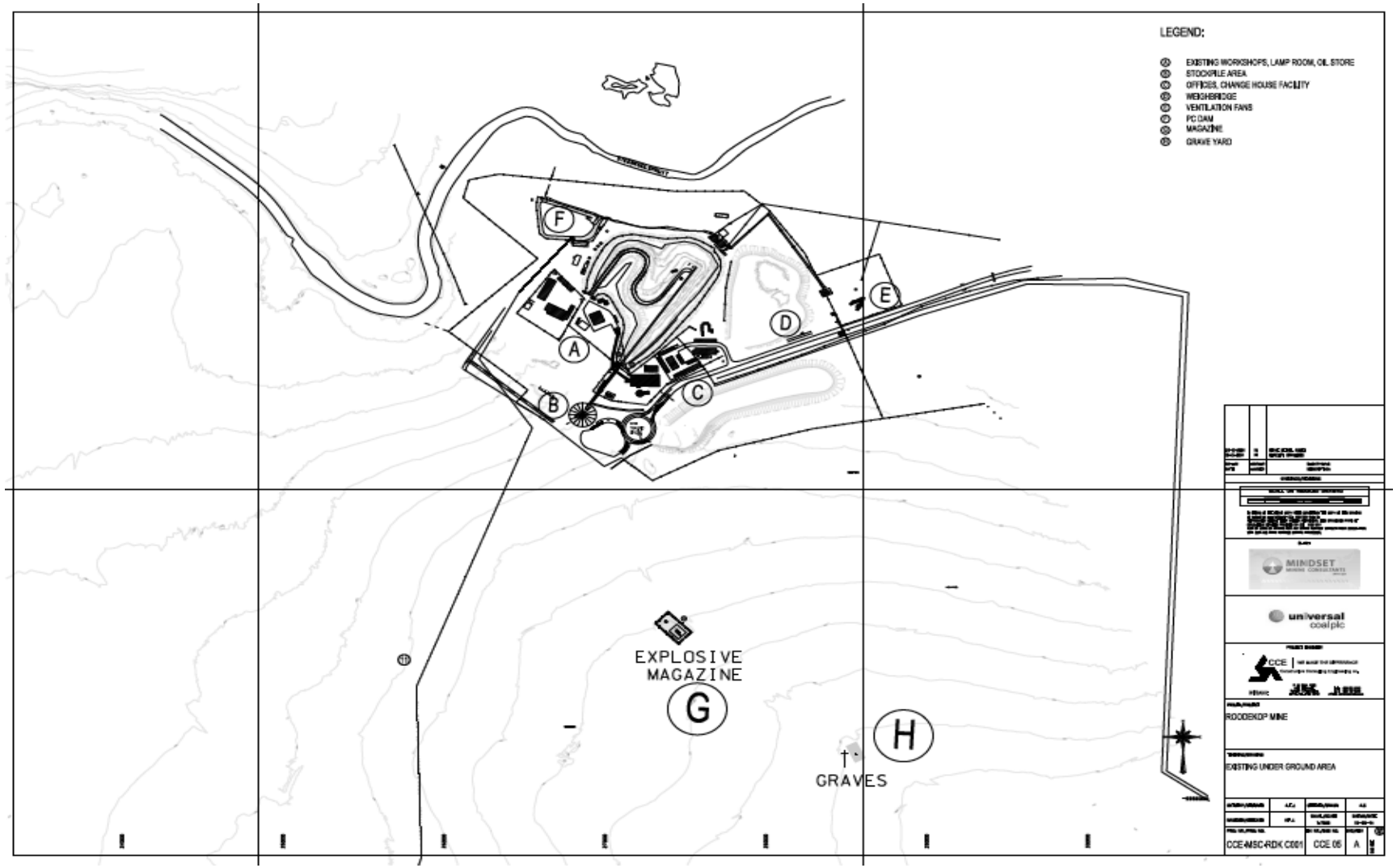
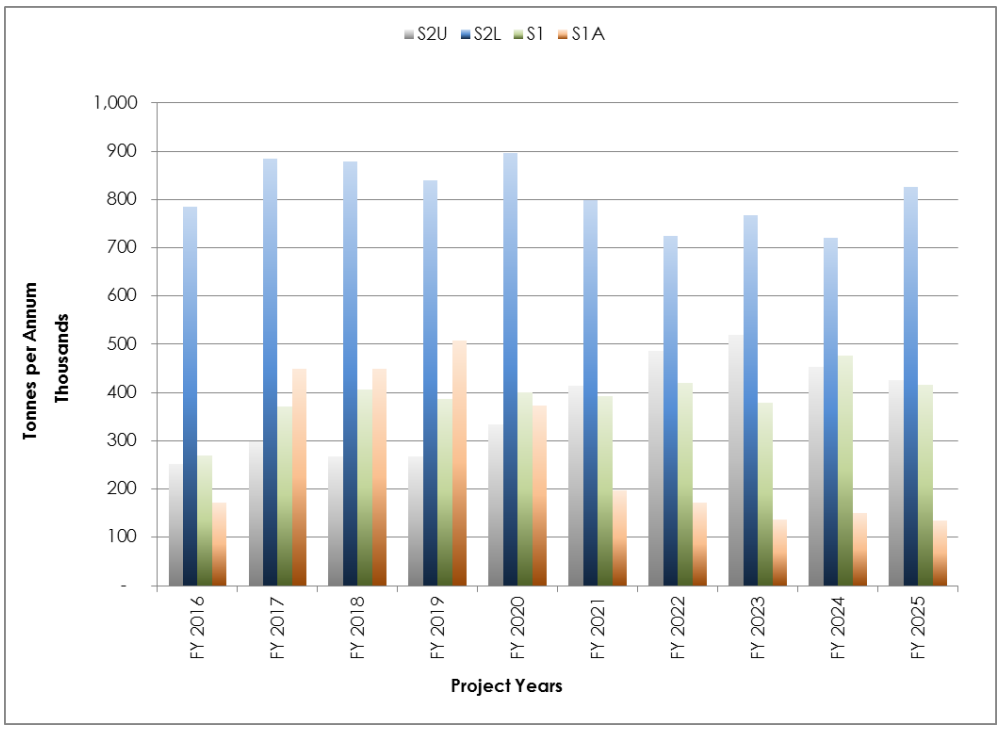


Figure 7-3: NCC Diepspruit Surface Plan



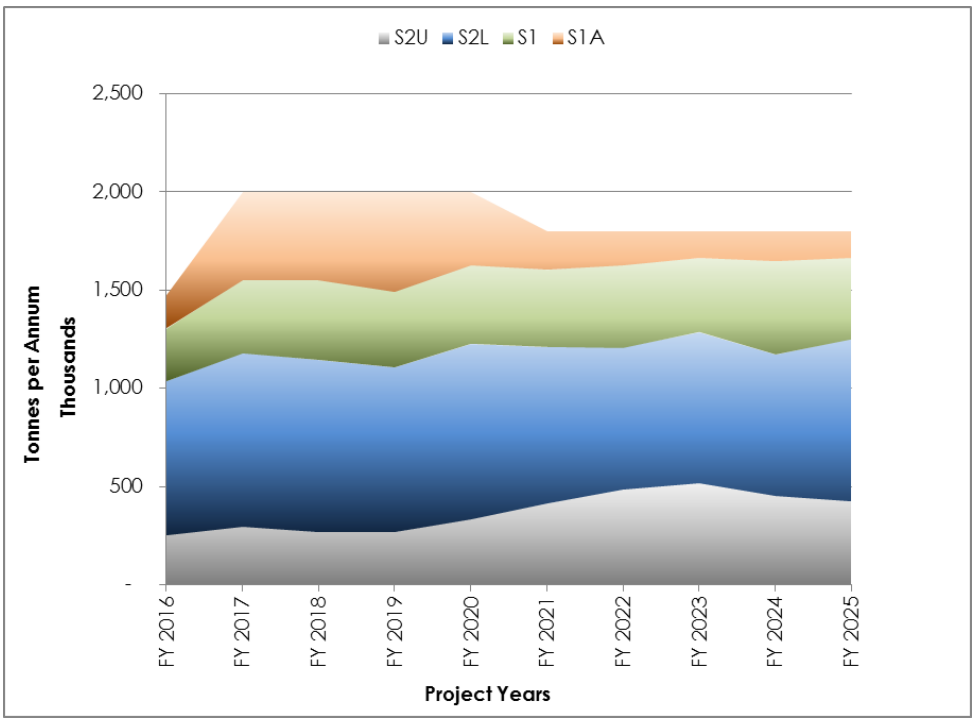
The annual coal seam production profile for the four seams is shown in Graph 7-1 below.

Graph 7-1: Annual Coal Production Profile



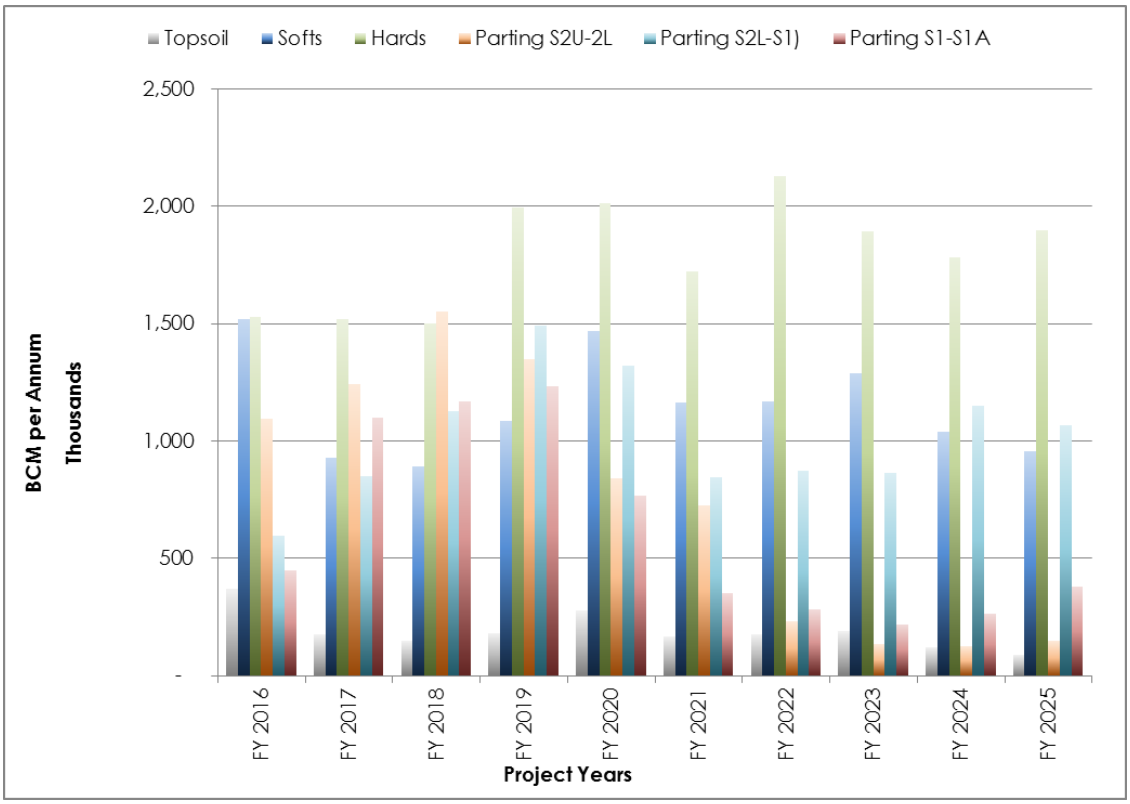
The ROM tonnage contribution of each seam to the annual total production is shown in Graph 7-2 below.

Graph 7-2: Annual Coal Seam Contribution



The annual waste volumes profiles for the topsoil, soft overburden, hard overburden, the S2U to S2L, S2L to S1, and S1 to S1A interburden are shown in Graph 7-3 below.

Graph 7-3: Annual Waste Volume Profile



7.2. Description of Mining Method's Impact on Operating Cost

7.2.1. Basic Overview of the Mining Method

7.2.1.1. Opencast Mining

Based on the business philosophy of the Project Owner, the opencast mining operations will be outsourced. All opencast mining contractors apply standard truck and shovel mining methods based on a strip mining design and layout. The mining method for the NCC Project opencast mine will be truck and shovel strip mining which is described as follows:

- The topsoil is removed and stored
- Thereafter, the softs will be removed and stored at the designated material stockpiles
- Next, cast blasting will be employed
- Roll over dozing will follow where practical
- Truck and shovel mining techniques is then applied to remove overburden material in order to expose the various coal seams
- Finally the coal seams will be excavated by truck and shovel mining techniques

The process is repeated on a strip-by-strip basis. Material (apart from the topsoil) will then be rolled-over into the void created by the removal of the coal in the previous bench, with the hard overburden and interburden forming the base, followed by the softs, levelled, and finally topsoil will be placed and seeded.

7.2.1.2. Underground Mining

For NCC, bord and pillar mining with continuous miners and shuttle cars or battery haulers was considered the best method. This was based on the following factors:

- The planned production rate of 480,000 tonnes per annum (tpa) excludes long wall mining, as long wall mining is capital intensive and requires production rates of above 2.0 Mtpa or more to justify the capital costs
- Bord and pillar mining with continuous miners and continuous haulages require substantially higher capital than continuous miners and shuttle cars. This method has not been proven to produce at the rates required to justify the higher capital.
- Drill and blast, bord and pillar mining was eliminated due to lower production rates as well as the safety risks associated with regular blasting.
- No pillar extraction can be applied, as the Mining Right, approved Environmental Impact Assessment (EIA), and Water Use Licences does not allow for surface subsidence.
- Underground bord and pillar mining utilising continuous miners with shuttle cars or battery haulers is a well-proven and flexible mining system, with acceptable production rates, operating and capital costs, and safe operational standards.

Underground bord and pillar mining with continuous miner and shuttle cars was conducted at NCC Diepspruit before mining was stopped. Mindset Mining Consultants recommends that this method be again applied when mining recommences.

7.2.2. Description of Equipment and Activities Impacting Electricity Cost

The opencast mining operation is a diesel truck and shovel operation with only pumping, workshop welding, grinding, and general lighting operations consuming electrical power.

The selection of the underground mine equipment can be separated into:

- Mining production equipment
- Coal conveying

The equipment typically deployed in an underground continuous miner production section and a stone development section that will impact on electricity costs is shown in Table 7-1 on page 80. Two continuous miner sections will be deployed underground with one stone development section.

Table 7-1: Mining Equipment Fleet

Underground Equipment for a CM Section		
Main Type Of Equipment	**Manufacturer**	**Quantity**
Continuous Miner	Joy 12HM31AAA	1
Shuttle Car	Joy 10SC32-56A	3
Roof Bolter	Rham Low Seam	1
Feeder Breaker	Stamler	1
Transformer	Kopex	1
Load Haul Dumper	Sandvik ED 7s	1

Underground Equipment for a Stone Section		
Main Type of Equipment	**Manufacturer**	**Quantity**
Roof Bolter	Rham Low Seam	1
Load Haul Dumper	Sandvik ED 7	1
Face Drill	Sandvik	1

Conveyors		
Section Conveyor	Nepean/Continental	1
Trunk Conveyor	Nepean/Continental	2
Shaft Conveyor	Nepean/Continental	1

7.2.3. Description of Equipment and Activities Impacting on Fuel Cost

The mining equipment deployed in the opencast are indicated in Table 7-2 below. Opencast truck and shovel operations are diesel intensive.

The NCC Colliery Management will closely monitor the diesel consumption of all equipment as well as the litres of diesel consumed per bank cubic metre (BCM) of waste moved and per tonne of coal produced.

Table 7-2: Equipment Affecting Fuel Costs - Opencast

Equipment Type	Size	Quantity
Excavator	67-tonne	3
Excavator	87-tonne	3
Articulating Dump Truck	40-tonne	10
Rigid Haul Truck	60-tonne	9
Cat Track Dozer	68-tonne	3
Cat Track Dozer	40-tonne	2
Grader	14-foot	2

Equipment Type	Size	Quantity
Water Bowser Truck	18,000 litre	2
Front End Loader	4.5 m^3 front	1
Diesel Generator	5 x 10 kVA with light mast	5
Water Pumps	2 x 6" water pump	2

The majority of the mining equipment (Table 7-3 below) will be electrically operated and therefore the fuel costs will have a minimum impact on the underground mine costs.

The underground equipment that will have an impact on fuel consumption and fuel costs are support equipment and are indicated in Table 7-3.

Table 7-3: Underground Equipment Affecting Fuel Costs

Type	Manufacturer	Model	Quantity
Load Haul Dumper	Sandvik	ED	10
Tractor	Elgin	4x4	7
Man Carrier	Fermel	18-Man Shuttle	8
LDV	Toyota/Nissan	2 L Diesel	8

7.2.4. Description of Equipment and Activities Impacting on Cost of Stores and Materials

The following items constitute the main consumables in opencast mining:

- Diesel, oils, grease, and other lubricants
- Tyres
- Equipment spares
- Ground engaging tools
- Personal Protective Equipment (PPE)
- Cables and pipes
- Drill bits
- Explosives

The following items constitute the main consumables in underground mining:

- Diesel, oils, grease and other lubricants
- Tyres
- Equipment spares
- PPE
- Cables and pipes
- Continuous miner picks
- Drill bits
- Roof bolts
- Stone dust
- Conveyor idlers
- Conveyor belting

7.2.5. Description of Equipment and Activities Impacting on the Cost of Water

The main users of water in the opencast mining operation will be:

- Dust suppression on coal loading and off-loading activities
- Dust suppression on roads
- Mine offices
- Change house and ablution facilities

PCDs have been established on the mine site and all dirty water is stored for reuse. No other activities have been identified which will have a nominal impact on the cost of water.

The main users of water in the underground mining operation will be:

- Dust suppression sprays on the continuous miners during coal cutting
- Dust suppression on coal conveyor transfer points, screening, and crushing plant
- Dust suppression on roads
- Mine offices
- Change house and ablution facilities

PCDs will be established on the mine site, where all dirty water will be stored for reuse. This will also be dealt with through the required Integrated Water Use Licence Application (IWULA) applications. No other activities have been identified which will have a nominal impact on the cost of water.

7.2.6. Description of Activities Impacting on Other Cost

As the mine will be a contractor-operated operation, the majority of labour costs will be carried by the contractor miner and will be included in the contractor's mining rate. There are no activities impacting on Other Costs.

7.2.7. Operating Cost Forecast (Excluding the Processing Plant and Labour)

The opencast mining operating costs indicated in Table 7-4 on page 83 are the anticipated mining rates, including fuel, and electricity that will be charged by the main contractors and the support services costs for the opencast mining.

The underground mining operating costs indicated in Table 7-5 on page 84 are the anticipated mining rates, including fuel, and electricity that will be charged by the main contractors and the support services costs for the underground mining.

The total NCC Project mining operating costs indicated in Table 7-6 on page 85 are the anticipated mining rates, including fuel, and electricity that will be charged by the main contractors and the support services costs for the opencast and underground mining.

Table 7-4: Operating Costs - Opencast

Cost Category	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Fuel	78,786,503	85,367,936	85,367,936	85,367,936	85,367,936	81,633,089	81,633,089	81,633,089	81,633,089	81,633,089	81,633,142
Electricity	155,200	168,165	168,165	168,165	168,165	160,807	160,807	160,807	160,807	160,807	160,808
Water	38,800	42,041	42,041	42,041	42,041	40,202	40,202	40,202	40,202	40,202	40,202
Stores & Materials	58,230,658	63,094,958	63,094,958	63,094,958	63,094,958	60,334,553	60,334,553	60,334,553	60,334,553	60,334,553	60,334,593
Other[5]	64,366,145	69,742,973	69,742,973	69,742,973	69,742,973	66,691,718	66,691,718	66,691,718	66,691,718	66,691,718	66,691,762
Total OC Cost	**201,577,305**	**218,416,073**	**218,416,073**	**218,416,073**	**218,416,073**	**208,860,369**	**208,860,369**	**208,860,369**	**208,860,369**	**208,860,369**	**208,860,506**

Cost Category	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Fuel	80,330,193	61,228,184	60,994,328	81,802,763	85,537,610	81,633,094	92,942,216	89,632,228	98,969,600	**1,643,127,048**
Electricity	158,241	120,612	120,152	161,142	168,499	160,807	183,085	176,565	194,958	**3,236,765**
Water	39,560	30,153	30,038	40,285	42,125	40,202	45,771	44,141	48,740	**809,191**
Stores & Materials	59,371,590	45,253,404	45,080,562	60,459,958	63,220,363	60,334,557	68,693,065	66,246,672	73,147,870	**1,214,425,888**
Other	65,627,292	50,021,540	49,830,487	66,830,336	69,881,591	66,691,722	75,930,926	73,226,768	80,855,113	**1,342,384,164**
Total OC Cost	**205,526,876**	**156,653,893**	**156,055,567**	**209,294,484**	**218,850,188**	**208,860,382**	**237,795,064**	**229,326,374**	**253,216,281**	**4,203,983,057**

[5] P&Gs, & Overheads

Table 7-5: Operating Costs - Underground

Cost Category	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Fuel	4,038,164	6,057,246	6,057,246	6,057,246	6,057,246	6,057,246	6,850,457	6,850,457	6,994,677	6,850,457	6,922,567
Electricity	5,636,939	6,482,013	6,482,013	6,482,013	6,482,013	6,257,389	6,433,879	6,433,879	6,465,969	6,433,879	6,449,927
Water	1,114,348	1,671,522	1,671,522	1,671,522	1,671,522	1,671,522	1,890,411	1,890,411	1,930,209	1,890,411	1,910,310
Stores and Materials	28,998,265	43,497,398	43,497,398	43,497,398	43,497,398	43,497,398	49,193,486	49,193,486	50,229,138	49,193,486	49,711,312
Other	27,858,692	41,788,038	41,788,038	41,788,038	41,788,038	41,788,038	47,260,281	47,260,281	48,255,234	47,260,281	47,757,757
Total UG Cost	**67,646,407**	**99,496,216**	**99,496,216**	**99,496,216**	**99,496,216**	**99,271,592**	**111,628,514**	**111,628,514**	**113,875,227**	**111,628,514**	**112,751,874**

Cost Category	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Fuel	7,211,007	13,845,134	13,845,134	11,854,529	6,922,567	6,922,567	6,922,567	6,922,567	4,967,926	**148,207,007**
Electricity	6,435,742	6,762,996	6,748,931	7,557,497	6,684,753	6,449,924	-	-	-	**110,679,757**
Water	1,989,907	3,820,621	3,820,621	3,271,305	1,910,310	1,910,310	-	-	-	**35,706,782**
Stores and Materials	51,782,616	99,422,624	99,422,624	85,127,983	49,711,312	49,711,312	49,711,312	49,711,312	35,674,933	**1,064,282,187**
Other	49,747,664	95,515,515	95,515,515	81,782,625	47,757,757	47,757,757	47,757,757	47,757,757	34,272,980	**1,022,458,042**
Total UG Cost	**117,166,937**	**219,366,889**	**219,352,824**	**189,593,939**	**112,986,699**	**112,751,871**	**104,391,636**	**104,391,636**	**74,915,839**	**2,381,333,776**

Table 7-6: Total NCC Project Operating Costs

Total	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Fuel	82,824,667	91,425,182	91,425,182	91,425,182	91,425,182	87,690,335	88,483,546	88,483,546	88,627,766	88,483,546	88,555,709
Electricity	5,966,739	6,839,363	6,839,363	6,839,363	6,839,363	6,599,105	6,775,595	6,775,595	6,807,684	6,775,595	6,791,643
Water	1,463,548	2,049,892	2,049,892	2,049,892	2,049,892	2,033,338	2,252,228	2,252,228	2,292,026	2,252,228	2,272,127
Stores and Materials	87,228,923	106,592,355	106,592,355	106,592,355	106,592,355	103,831,951	109,528,039	109,528,039	110,563,691	109,528,039	110,045,904
Other	92,224,837	111,531,011	111,531,011	111,531,011	111,531,011	108,479,756	113,951,999	113,951,999	114,946,952	113,951,999	114,449,519
Total Cost	**269,708,713**	**318,437,804**	**318,437,804**	**318,437,804**	**318,437,804**	**308,634,485**	**320,991,407**	**320,991,407**	**323,238,120**	**320,991,407**	**322,114,903**

Total	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Fuel	87,541,200	75,073,318	74,839,462	93,657,291	92,460,177	88,555,661	99,864,783	96,554,795	103,937,526	**1,791,334,055**
Electricity	6,772,004	7,019,297	7,004,253	7,899,923	7,042,813	6,791,640	389,056	375,200	414,287	**117,557,883**
Water	2,345,949	4,091,998	4,090,962	3,633,874	2,289,433	2,272,127	411,942	397,271	438,656	**42,989,503**
Stores and Materials	111,154,206	144,676,027	144,503,186	145,587,942	112,931,674	110,045,869	118,404,377	115,957,983	108,822,803	**2,278,708,076**
Other	115,374,956	145,537,054	145,346,001	148,612,962	117,639,349	114,449,479	123,688,684	120,984,526	115,128,093	**2,364,842,206**
Total Cost	**323,188,315**	**376,397,695**	**375,783,864**	**399,391,991**	**332,363,446**	**322,114,776**	**342,758,841**	**334,269,775**	**328,741,365**	**6,595,431,723**

8. Regulation 11 (1) (g) (ii)

Details and Costs of the Technological Process Applicable to Extraction and Preparation of the Mineral(s) to Comply with Market Requirements

8.1. High-level Description of the Processing Plant

Three single stage coal handling and processing modules are available at NCC to process the raw coal to produce products for specific markets. The modules with the markets for which it can process the raw coal are as follows:

- Module B = Eskom Product Processing Plant
- PCI Module = Export Product Processing Plant
- HMS Module = Metallurgical Product Processing Plant

8.1.1. Basic Plant Design

The raw coal, product, and discard handling for all three modules will include the following:

- Primary crushing at the opencast ROM stockpile area to reduce the opencast ROM coal to (minus) – 250 mm
- Haul truck route from opencast and underground ROM coal stockpiles to the raw coal stockpiles at the CHPP
- Raw coal stockpile with above ground reclaim tunnel and vibrating feeders
- A vibrating scalping screen, sizing at 50 mm, that will relieve the load on the secondary crushers:
  - The screen undersize will flow directly onto the respective plant feed bin conveyors. The screen oversize will be reduced in size by the respective mineral sizers
  - The crushed material will report onto the respective plant feed bin conveyors for the Eskom and metallurgical coal modules
- Secondary crusher feed conveyors for the – 250 mm + 50 mm raw coal
- Secondary crushing, utilising a mineral sizer, to reduce the top size from 250 mm to 50 mm
- A 40- and 80-ton plant feed surge bin for the Export and Metallurgical plant modules
- Plant feed conveyors
- Eskom cyclone and spiral product collecting conveyor
- Low Phos cyclone and spiral product collecting conveyor
- Primary product radial stacker to discharge onto a kidney-shaped stockpile
- Discard collecting conveyor
- Discard bin for loading discard into trucks

The main components of the washing modules are:

- One 300-tonnes per hour (tph) single stage coal preparation module, including two dense medium cyclones (DMC) for coarse coal (50 x 0.63 mm)
- One 200-tph single stage coal preparation module including one DMC for coarse coal (50 x 0.63 mm)

- One 100-tph single stage coal preparation module including one DMC for coarse coal (50 x 0.63 mm)
- Export grade spirals for fine coal beneficiation (0.63 x 0.15 mm)
- Eskom grade spirals for fine coal beneficiation (0.63 x 0.15 mm)
- Ultra-fine coal (0.15 mm) is dewatered in a tailings thickener and pumped to old underground workings
- Water clarification and reticulation system

A block flow diagram of the plant is shown in Figure 8-1 on page 88.

8.1.2. Efficiency of the Process

The NCC Project is based only on the production and sale of coal to the Eskom and Metallurgical markets. An Export product can be produced from the mined coal seams, but due to the current low export product prices, a strategic decision was made to not produce this product at this time. When the export price rebounds, producing this product will be reconsidered. The CHPP will be upgraded and refurbished in two phases. 'Phase 1' will be the upgrade and refurbishment of the Eskom Product plant (Module B) and Export Product plant (PCI Module). 'Phase 2' will be the upgrade and refurbishment of the Metallurgical Product plant (HMS Module).

The Eskom product can be washed in either Module B or the PCI Module. The Metallurgical Product can be washed in both the HMS Module or in Module B, as both plants allow for the screening of a sized product. The Metallurgical Product will be batch washed in Module B. The CHPP is owned by Universal Coal and will be operated by an appointed contractor. The CHPP will process raw coal from both the underground and opencast areas of NCC. Coal from all the mining areas will be transported by haul trucks to the plant and stockpiled at the relevant module.

The following practical yields will be achieved from the plant based on washing the S2U, S2L, and S1 for the Eskom product and the S1A for the Metallurgical product:

- Eskom yield of 31 % to 77 % (including spiral product)
- Metallurgical coal at 35 % to 77 %

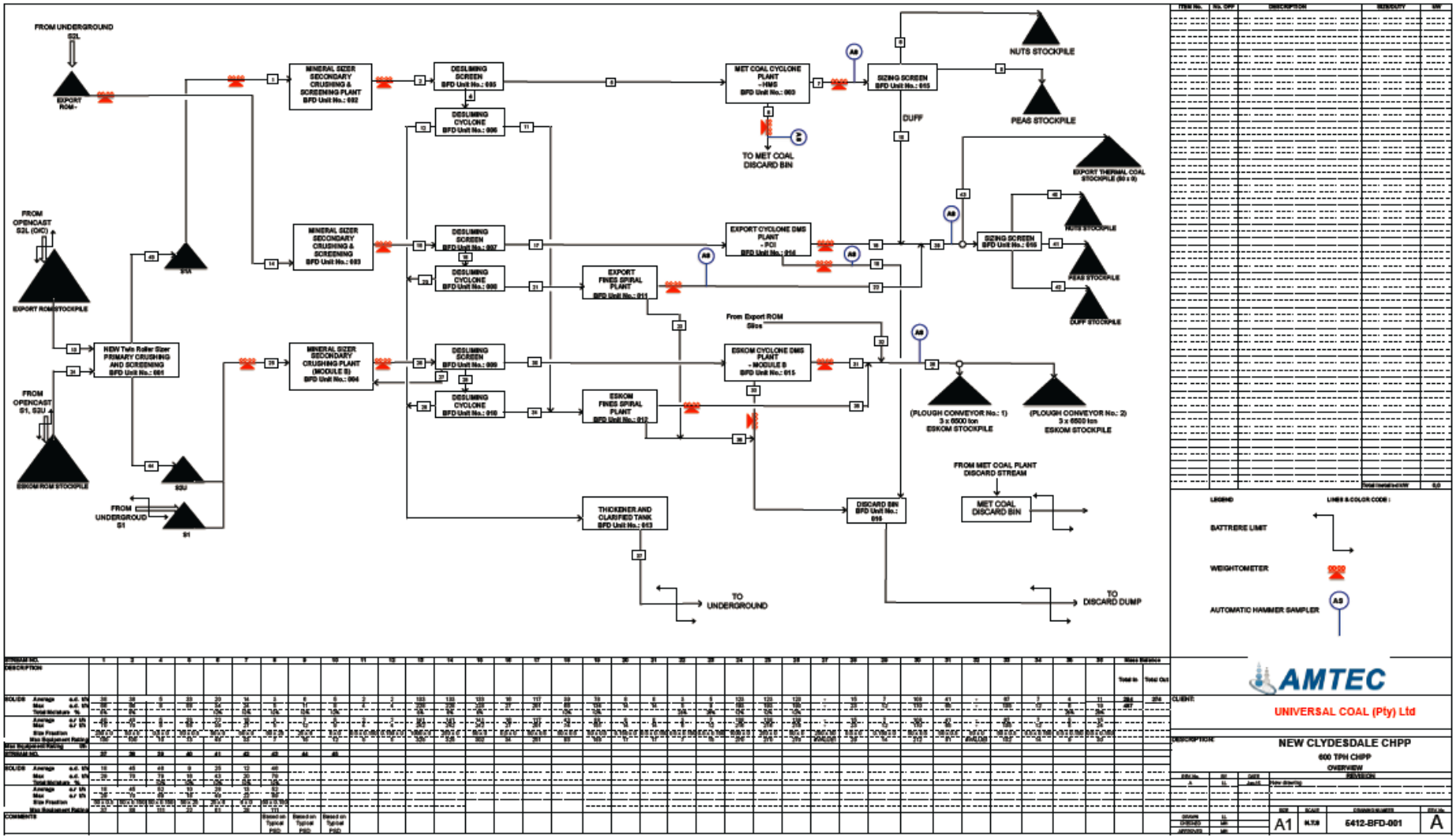
The following products will be produced:

- 24 % Ash Eskom product
- 18% Ash sized low Phos Metallurgical product

The feed rates and particle sizes to be processed in the CHPP (all three modules) are the following:

- Raw coal feed rate; 2,940 tpa
- Plant utilisation; 6,525 hours per annum (540 hours per month)
- Primary crushing; 640 tph
- Raw coal feed size; -250 mm
- Dense medium module feed size; - 50 mm

Figure 8-1: Washing Plant Block Flow Diagram



8.1.2.1. Coal Quality Control during Washing

Coal samples are taken to monitor plant product qualities. This allows process adjustments to be made to improve quality where possible, and assists in the efficient stockpiling and blending of product coal. The planned coal-sampling regime will be as follows:

- Plant Feed sample composited for 24 hours
- Eskom product sample composited every two hours
- Metallurgical product sample composited every two hours
- Discard samples collected every hour and composited for 24 hours

8.1.2.2. On-Site Laboratory

An on-site laboratory, using the existing laboratory infrastructure, will be provided by the Owner. The laboratory will carry out the following analyses on a continual basis during plant operations based on the quality-sampling regime:

- Total Moisture (TM)
- Calorific Value (CV)
- Proximate Analysis
- Sulphur Analysis
- Size Analysis
- Abrasiveness Index
- Hardgrove Grindability Index (HGI)

8.1.2.3. Product Control and Handling

The washed Eskom coal product from the Eskom dense medium separation (DMS) plant and the Eskom grade fines module will be transferred onto an existing Eskom product conveyor. The Eskom product coal will then be stockpiled by means of a slew conveyor onto distinct 6,500-tonne stockpiles. The coal on these stockpiles will be sampled and analysed to ensure that it complies with the Eskom coal specifications.

Once a stockpile complies, it will be certified as compliant and can be loaded for Eskom. Coal will be reclaimed from the separate stockpiles by means of front end loaders which will tip into 32-ton interlink side tipper road haul trucks that will transport Eskom product coal to the nearby coal-fired power station.

Any coal that does not comply with the Eskom specifications will be moved away, and blended with higher quality coal and recertified when compliant. If the non-compliance is due to high moisture, the coal on the stockpile will be left on the stockpile to allow the moisture to drain off until the moisture specifications are met.

Metallurgical product will be screened into nuts, peas, and duff at the Module B plant and the nuts and peas will be stockpiled in a loading facility adjacent to HMS plant. The duff from the metallurgical product will report to the Eskom product conveyor. The Metallurgical products will be sold free-on-truck (FOT) at the CHPP and will be loaded by front end loader (FEL) onto road trucks, for delivery to the respective customers.

8.2. Description of Equipment and Activities Impacting Electricity Cost

The following equipment in the CHPP will have an impact on electricity costs:

- Conveyors
- Screens
- Primary and secondary crushers
- Pumps
- Feeders
- Lighting

Power consumption for the screening and crushing plant is based upon a 70 % load factor on the estimated installed power of 2,500 kilowatt (kW). The plant will operate between 520- and 565 hours per month and the expected monthly power consumption will be about 1,067 megawatt hours (MWh) or 12,810 MWh per annum.

8.3. Description of Equipment and Activities Impacting on Fuel Cost

The CHPP completely electrically operated and there will be no equipment impacting on fuel costs. However, the plant feed and product loading will involve four FELs. The four FELs will each operate ~ 20 hours per day.

8.4. Description of Equipment and Activities Impacting on Cost of Stores and Materials

The following items constitute the main consumables in the coal beneficiation plant:

- Diesel
- Electrical and mechanical spares
- Magnetite
- PPE
- Conveyor belting
- Conveyor idlers
- Oil and lubricants

8.5. Description of Equipment and Activities Impacting on Cost of Water

The following equipment is the major consumers of water in the CHPP:

- DMCs
- Spirals
- Conveyors

The CHPP water consumption has been estimated to be between 21,000 and 25,000 m^3 per month.

8.6. Description of Activities Impacting on Other Cost not included above

The CHPP will be operated by a contractor and all costs are included in the total tariff. Other plant costs for the CHPP are:

- Labour costs
- Product loading
- Major component replacements

8.6.1. Processing Plant Operating Cost Forecast (excluding Labour)

The Operating Costs indicated in Table 8-1 on page 92 are the anticipated processing costs.

Table 8-1: Operating Costs

Cost Category	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Fuel	12,931,844	14,754,469	14,840,540	14,846,491	14,812,813	14,271,830	14,688,916	14,637,944	14,714,313	14,631,197	14,632,470
Electricity	12,780,472	16,329,429	16,329,429	16,329,429	16,329,429	15,763,557	16,208,170	16,208,170	16,289,009	16,208,170	16,248,598
Water	1,420,052	1,632,943	1,632,943	1,632,943	1,632,943	1,576,356	1,620,817	1,620,817	1,628,901	1,620,817	1,624,860
Stores & Materials	36,436,603	42,017,225	41,929,623	41,923,567	41,957,844	40,532,018	41,660,423	41,712,301	41,916,921	41,719,169	41,859,074
Other	31,317,277	36,647,865	36,560,263	36,554,207	36,588,484	35,183,168	36,295,458	36,347,336	36,549,026	36,354,204	36,492,644
Total Cost	**94,886,250**	**111,381,930**	**111,292,798**	**111,286,635**	**111,321,511**	**107,326,930**	**110,473,785**	**110,526,570**	**111,098,171**	**110,533,557**	**110,857,646**

Cost Category	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Fuel	14,603,869	15,708,484	15,712,522	17,647,347	15,576,982	14,966,962	16,581,374	16,082,546	16,265,962	**302,908,879**
Electricity	16,212,864	17,037,278	17,001,846	19,038,777	16,840,169	16,248,591	17,962,050	17,460,549	17,779,644	**330,605,628**
Water	1,621,286	1,703,728	1,700,185	1,903,878	1,684,017	1,624,859	1,796,205	1,746,055	1,777,964	**33,202,568**
Stores & Materials	41,763,375	43,518,562	43,390,699	48,535,890	42,963,955	41,518,609	45,860,115	44,616,216	45,544,045	**851,376,233**
Other	36,398,240	38,123,546	37,996,967	43,068,330	37,576,084	36,152,179	40,431,581	39,205,858	40,122,122	**743,964,837**
Total Cost	**110,599,635**	**116,091,598**	**115,802,219**	**130,194,221**	**114,641,207**	**110,511,199**	**122,631,324**	**119,111,223**	**121,489,737**	**2,262,058,146**

9. Regulation 11 (1) (g) (iii)

Details and Costing of the Technical Skills and Expertise and Associated Labour Implications required to Conduct the Proposed Mining Operation

9.1. Organisational Structure of the Mine

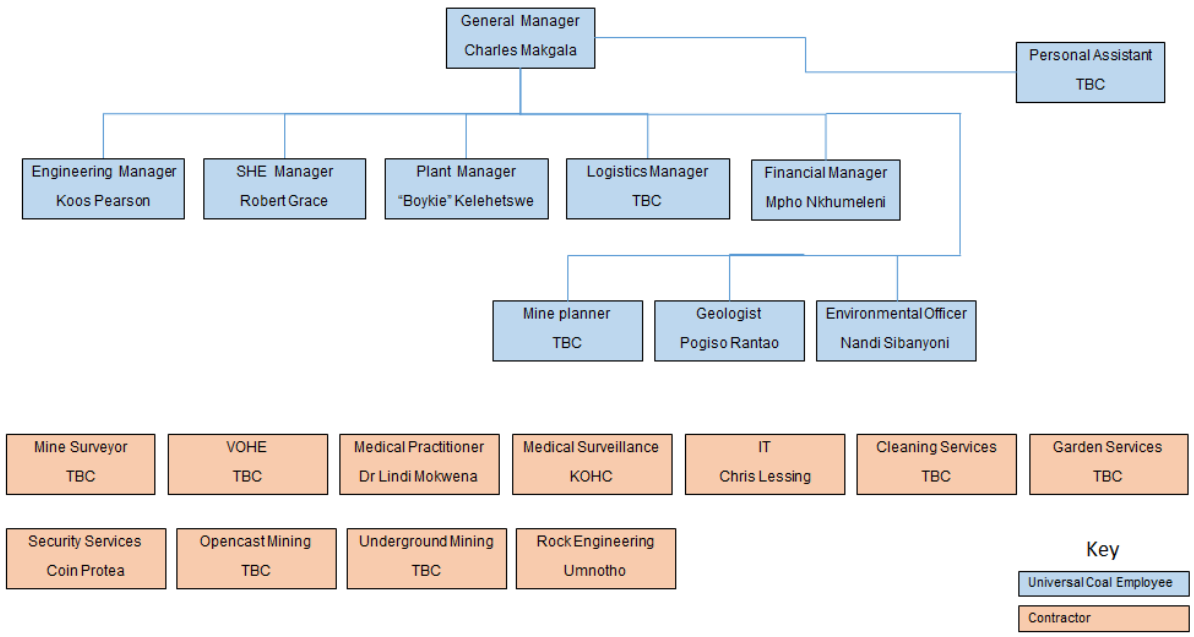
The business model adopted by Universal Coal is based on constructing a number of outsourced services level contracts covering the entire operation of the mine from mining to product logistics, with Universal Coal only providing sufficient financial and human resources to ensure that:

- The mine maintains its license to operate
- Business objectives are met
- Facilities and services that fall between or across contracts are provided for by Universal Coal

Universal Coal's Head Office will assist the NCC Project in the form of human resources, industrial relations, public relations, as well as in a legal and financial capacity. The cost of providing this service will partially be recovered as a management fee charged to the mine.

Approximately 300 personnel will be employed on the mine, either on a full time or part time basis. Figure 9-1 below illustrates the proposed mine organisational structure, reporting lines, and primary and secondary service level contracts employed. It is important to note that not all service level agreements required to support the operation of the mine are documented in Figure 9-1. The organisation structure/ business model proposed, assumes that all coal is sold on an ex-gate basis.

Figure 9-1: Proposed Mine Organisational Structure



9.1.1. Description of Positions Requiring Certificates of Competency and under which Skills Category it has been Budgeted for

The NCC Project will be operated on a business model that assumes a small competent Owner's Management Team on site, which carries the main legal appointments under the Mine Health and Safety Act (MHSA). These legal appointments are:

- Chief Executive Officer = MHSA 7 (2)
- Chief Operations Officer = MHSA 4 (1)/ 7 (2)
- General Manager = MHSA 4 (1)
- Mine Manager = MHSA 3.1 (a)
- Manager (where more than 50 employees) = Regulation 2.5.2.1
- Engineer = Regulation 2.13.1
- Chief Safety Officer = Regulation 2.17.4
- Chief Surveyor = Regulation 17.2 (a)
- Medical Practitioner = Regulation 13.3 (a) i
- Occupational Hygienist = Regulation 12.1
- Rock Engineer = Regulation 14.1 (8)
- Plant Manager (Subordinate Manager) = Regulation 2.6.1
- Health and Safety Representatives = MHSA 29 (4)
- Health and Safety Committee = MHSA 34 (6)
- Shift Boss = Regulation 2.15.1

Under the control of the Owner's Team all work is conducted by contractors which, when required, carry subordinate legal appointments. Table 9-1 indicates the position requiring a certificate of competency as well as the associated skills category of each role.

Table 9-1: Positions requiring Certificates of Competency

Owners Management Team	Required Certificates of Competency	Supervisory Position	Skills Category
Mine Manager	Tertiary Education and Mine Managers Certificate of Competency	Management	Management and Technical
Financial Manager	Tertiary Education	Management	Management and Technical
SHEQ Manager	Tertiary Education and Skills Training	Management	Management and Technical
Logistics Manager	Secondary Education and Skills Training	Management	Management and Technical
Pit Superintendent	Secondary Education and Skills Training	Management	Management and Technical
Safety Superintendent	Secondary Education and Skills Training	Supervisory and Control	Supervisory
Debtors and Creditors Clerk	Secondary Education and Skills Training	Support function	Clerical
Weigh Bridge Clerk	Secondary Education and Skills Training	Support function	Clerical
Personal Assistant/ Receptionist	Secondary Education and Skills Training	Support function	Clerical

9.1.2. Description of Which Part(s) of the Mining Operation will be Outsourced (if any)

The Project's management of Contractors is defined in the Universal Coal's Contractor Management Procedure.

Universal Coal will structure the various aspects of the Mine's operation into a number of primary and secondary support contracts. Primary service level contracts have been defined as those contracts that provide a critical value chain function in the delivery of coal to market, namely:

- Mining (including drilling and blasting)
- Coal handling and processing
- Product logistics

Secondary support contracts are deemed those contracts that support either Universal Coal in running the Mine or provide a service to one or more of the primary service level contracts.

Secondary service level contracts include, but are not necessarily limited to:

- Survey and mine planning
- Janitorial and grounds management services
- Laboratory services
- Medical and emergency response and OHS support
- Security services
- Sewage and water treatment service (outsourced maintenance and monitoring contract)
- Waste management services

9.1.2.1. Description of Positions Requiring Certificates of Competency and under which Skills Category it has been Budgeted for

Table 9-2 indicates the contractor staff roles requiring a certificate of competency as well as the associated skills category of each position.

Table 9-2: Positions requiring Certificates of Competency

Position	Amount of Employees	Certificate of Competency Required
Underground Manager	> 50 Employees	Mine Manager's Certificate Coal Mines
Sub-Ordinate Engineer	To assist the Engineer with underground and opencast operations	Electrical/ Mechanical Government Certificate of Competency
Mine Overseer	> 300 Employees underground	Mine Overseers Certificate Coal Mines

9.2. Costing of Skills Categories in the Mining Operation to Determine if Technical Competence has been Budgeted for

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

Table 9-3 on page 97 indicates the budget allocated annually for the Project. The sub-contractor employee skills costing are indicated in Table 9-4 on page 98. Table 9-5 on page 99 provides the budget for specialist consultants and service providers. Table 9-6 on page 100 calculates the total cost of all the technical skills and services required to operate the mine.

Table 9-3: Costing of Skills Categories – Mine Employees

Category	Number Employees	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
		Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget
Top Management	3	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510
Senior Management	6	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062
Professionally Qualified	4	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000
Skilled Technical	14	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924
Semi-skilled and Discretionary Decision-making	22	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499
Non-Permanent Employees	0	-	-	-	-	-	-	-	-	-	-	-
Total Personnel Expenditure	**49**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**

Category	Number Employees	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
		Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	
Top Management	1	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	5,882,510	**117,650,205**
Senior Management	1	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	8,024,062	**160,481,243**
Professionally Qualified	1	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	3,757,000	**75,140,004**
Skilled Technical	0	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	3,593,924	**71,878,484**
Semi-skilled and Discretionary Decision-making	0	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	6,442,499	**128,849,984**
Non-Permanent Employees	0	-	-	-	-	-	-	-	-	-	**-**
Total Personnel Expenditure	**3**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**27,699,996**	**553,999,920**

Table 9-4: Costing of Skills Categories – Sub-Contractor Employees

Category	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget
Top Management	304,485	306,250	306,250	306,250	306,250	306,250	306,250	306,250	306,250	306,250	306,250
Senior Management	-	-	-	-	-	-	-	-	-	-	-
Professionally Qualified	845,100	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000
Skilled Technical	696,462	700,500	700,500	700,500	700,500	700,500	700,500	700,500	700,500	700,500	700,500
Semi-skilled and Discretionary Decision-making	528,933	532,000	532,000	532,000	532,000	532,000	532,000	532,000	532,000	532,000	532,000
Non-Permanent Employees	-	-	-	-	-	-	-	-	-	-	-
Total Personnel Expenditure	**2,374,980**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**

Category	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	Budget	
Top Management	306,250	306,250	306,250	306,250	306,250	306,250	306,250	306,250	306,250	**6,123,235**
Senior Management	-	-	-	-	-	-	-	-	-	**-**
Professionally Qualified	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	850,000	**16,995,100**
Skilled Technical	700,500	700,500	700,500	700,500	700,500	700,500	700,500	700,500	700,500	**14,005,962**
Semi-skilled and Discretionary Decision-making	532,000	532,000	532,000	532,000	532,000	532,000	532,000	532,000	532,000	**10,636,933**
Non-Permanent Employees	-	-	-	-	-	-	-	-	-	**-**
Total Personnel Expenditure	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**2,388,750**	**47,761,230**

Table 9-5: Service Providers

List of Specialists, Consultants and Service Providers	Budget Year 01	Budget Year 02	Budget Year 03	Budget Year 04	Budget Year 05	Budget Year 06	Budget Year 07	Budget Year 08	Budget Year 09	Budget Year 10	Budget Year 11
Laboratory Services	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000
Survey and Mine Planning	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000
Janitorial and Grounds Management Services	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000
Medical, Emergency Response and OHS Support	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000
Security Services	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
Sewage and Water Treatment Service	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000
Waste Management Services	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000
Total Budget (Services)	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**

List of Specialists, Consultants and Service Providers	Budget Year 12	Budget Year 13	Budget Year 14	Budget Year 15	Budget Year 16	Budget Year 17	Budget Year 18	Budget Year 19	Budget Year 20	Total
Laboratory Services	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	2,880,000	**57,600,000**
Survey and Mine Planning	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	840,000	**16,800,000**
Janitorial and Grounds Management Services	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000	960,000	**19,200,000**
Medical, Emergency Response and OHS Support	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	**28,800,000**
Security Services	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	**24,000,000**
Sewage and Water Treatment Service	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	1,800,000	**36,000,000**
Waste Management Services	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	**48,000,000**
Total Budget (Services)	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**11,520,000**	**230,400,000**

Table 9-6: Total Cost of All Technical Skills and Services Required to Operate Mine

Category	Budget Year 01	Budget Year 02	Budget Year 03	Budget Year 04	Budget Year 05	Budget Year 06	Budget Year 07	Budget Year 08	Budget Year 09	Budget Year 10	Budget Year 11
In-house Skills and Services	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407
Skills and Services by Sub-Contractors	2,374,980	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750
Skills and Services provided by Service Providers	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000
Total Budget for Technical Skills & Competence	**41,806,387**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**

Category	Budget Year 12	Budget Year 13	Budget Year 14	Budget Year 15	Budget Year 16	Budget Year 17	Budget Year 18	Budget Year 19	Budget Year 20	Total
In-house Skills and Services	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	27,911,407	**558,228,131**
Skills and Services by Sub-Contractors	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	2,388,750	**47,761,230**
Skills and Services provided by Service Providers	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	11,520,000	**230,400,000**
Total Budget for Technical Skills & Competence	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**41,820,157**	**836,389,361**

10. Regulation 11 (1) (g) (iv)

Details and Costing of Regulatory Requirements in Terms of the Act and Other Applicable Law, Relevant to the Proposed Mining Operation

10.1. Environmental Cost Forecast

As part of the Section 102 application to amend and extend the existing Mining Right, SRK compiled a closure report for NCC Project (Combined NCC and Roodekop).

10.1.1. Rehabilitation Cost Estimate

The cost of rehabilitation associated with the mine, surface area, and CHPP is estimated in Table 10-1 on page 102 and is provided as the DMR guarantee. A closure cost estimate study was conducted by SRK, an independent environmental consulting company, in July 2016. SRK's closure cost figures were applied to compile the closure costs.

Table 10-1: Calculation of the NCC Project Mine Quantum

Mine:	NCC Project (**Combined NCC & Roodekop**)	Location:	Kriel
Evaluators:	SRK Consulting	Date:	July 2016

No	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate (ZAR/Unit)	Multiplication Factor	Weighting Factor 1	Amount (ZAR)
1	Dismantling of processing plant and related structures (including overland conveyors and powerlines)	**m^3**	3400	13.20	1	1	44,880
2A	Demolition of steel buildings and structures	**m^2**	6000	184.01	1	1	1,104,060
2B	Demolition of reinforced concrete buildings and structures	**m^2**	13000	271.17	1	1	3,525,210
3	Rehabilitation of access roads	**m^2**	51000	32.93	1	1	1,679,430
4A	Demolition and rehabilitation of electrified railway lines	**m**	0	319.59	1	1	-
4B	Demolition and rehabilitation of non-electrified railway lines	**m**	1730	174.32	1	1	301,574
5	Demolition of housing and facilities	**m^2**	1736	368.01	1	1	638,865
6	Opencast rehabilitation including final voids and ramps	**ha**	252.975	187,298.21	1	1	47,381,765
7	Sealing of shafts, adits and inclines	**m^2**	4090	98.78	1	1	404,010
8A	Rehabilitation of overburdens and spoils	**ha**	0	128,610.15	1	1	-
8B	Rehabilitation of processing waste deposits and evaporation ponds (basic, salt producing waste)	**ha**	45	160,181.61	1	1	7,208,172
8C	Rehabilitation of processing waste deposits and evaporation ponds (acid, metal rich waste)	**ha**	19.3	465,243.33	1	1	8,979,196
9	Rehabilitation of subsided areas	**ha**	0	107,691.63	1	1	-
10	General surface rehabilitation, including grassing of all denuded areas	**ha**	55.96	101,880.93	1	1	5,701,257
11	River diversions	**ha**	0	101,880.93	1	1	-
12	Fencing	**m**	16000	116.21	1	1	1,859,360
13	Water management (separating clean and dirty water, managing polluted water and managing the impact on ground water, including treatment when required)*	**ha**	645.935	38,737.99	1	1	25,022,224
14	2 to 3 years of maintenance and aftercare	**ha**	308.935	13,558.30	1	1	4,188,633

No	Description	Unit	A	B	C	D	E=A*B*C*D
			Quantity	Master Rate (ZAR/Unit)	Multiplication Factor	Weighting Factor 1	Amount (ZAR)
15A							
15B							
		Sub Total					**108,038,636**
		Weighting Factor 2			1.05		113,440,568
	Allowances						
	Preliminary and General						6,806,434
	Contingency						10,803,864
	Sub Total 2						**17,610,298**
	Sub Total 3						**131,050,866**
	VAT @ 14%						18,347,121
	Grand Total - Sub Total 3						**149,397,987**

10.1.2. Socio-Economic Impact Cost Estimate

The eMalahleni Local Municipality appears to have the fastest growing population in the Mpumalanga Province. This could be due to the rapid increase in urbanisation and an influx of job seekers due to the presence of the mines and power stations. According to the 2007 Community Survey produced by StatsSA, eMalahleni Local Municipality has a population of 435 217, an increase of 58 % from 2001 (*census data*). This is the largest population increase in any municipality in the Mpumalanga Province.

Just under half of the Local Municipality's population (45 %) is economically active. This is 9 % higher than the District. The highest number of unemployed people reside in Hlalanikahle (24 %), followed by Lynnville (23 %), Phola (22 %), and Kwa-Guqa (21 %). Significant concentrations of people living under the Minimum Living Level occur within eMalahleni. Specific areas of concentration found within the eMalahleni LM include eMalahleni, Ogies, and Kriel.

Most people in the municipal area are employed in the primary and secondary sectors, with very few people employed in the tertiary sector (only 6 % as professionals and 4 % as legislators; senior officials and managers). The potential socio-economic impacts were assessed using an impact assessment methodology. Potential direct and indirect, positive and negative impacts were assessed for the construction, operational, and decommissioning and closure phases. The Social Impact Assessment is included as Annexure 16.

10.1.2.1. Construction Phase Impacts

Table 10-2 below provides a summary of some of the socio-economic impacts for the construction phase both pre- and post- mitigation.

Table 10-2: Opencast Construction Phase Impacts

Impact	Significance Rating	
	Pre-mitigation	Post-mitigation
Physical Resettlement of Homes, Settlements, and Associated Structures of Homestead Dwellers: Five homesteads inside the project site must be removed and it is strongly recommended that two homesteads just outside the site also be moved.	**Major negative**	**Minor negative**
Direct and Indirect Employment Creation: At present, the workforce needed for construction of Roodekop Coal Mine is estimated to be 300 people. Universal Coal's contractors will likely hire un- and semi-skilled local people from the broader study area.	**Negligible negative**	**Minor negative**
Increase in Social Pathologies and Impacts on Health: All contractors will be housed in Kriel. The influx of contractors to the town will increase certain health risks to some people living in the broader study, especially regarding communicable diseases and HIV/AIDS. There will likely be increases in unwanted pregnancies and prostitution.	**Minor negative**	**Minor negative**
Growth of Informal Settlements: The prospect of new job opportunities at Roodekop Coal Mine will likely lead to an increase in the number of job-seekers into the broader study area. Informal settlement is already evident in Thubelihle.	**Minor negative**	**Negligible negative**

10.1.2.2. Operational Phase Impacts

Table 10-3 below provides a summary of some of the socio-economic impacts for the operational phases both pre- and post- mitigation.

Table 10-3: Opencast Operational Phase Impacts

Impact	Significance Rating	
	Pre-mitigation	Post-mitigation
Direct and Indirect Local Employment: The mine will have a workforce of approximately 200 people when it is fully operational, of which 30 will be directly employed by the mine and the remainder will be contract workers. All labour will be sourced from within 40 km of the site and only 10% may be sourced from outside this area.	**Minor positive**	**Moderate positive**
Local Procurement of Goods and Services: Universal Coal will serve to provide an additional source of revenue for the local economy. However, most procurement will likely come from large towns and there will likely be limited local procurement, especially in the Township of Thubelihle.	**Minor positive**	**Minor positive**
Enhanced Livelihoods through Local Economic Development (LED): LED investment focuses largely on the establishment of a renewable energy business which will create 15 jobs with an investment of Z A R 2 760 000 over five years. Other programmes include education and skills development, social welfare initiatives, and enterprise development.	**Minor positive**	**Moderate positive**
Potential Safety Hazards: Safety will be affected by the introduction of heavy machinery and 139 30-ton trucks transporting coal daily from the project site to a nearby siding 10 km away.	**Minor negative**	**Negligible negative**
Increase in Crime: Surrounding farmers may incur financial losses due to crops and implements being stolen as well as break-ins. The introduction of contract workers to the area that are likely to be low paid and low skilled, will likely tempt them to engage in theft.	**Minor negative**	**Minor negative**
Disturbance and Damage caused by Blasting and Vibrations: There are already reports of disturbance and damage to structures caused by blasting at existing mines. This will be exacerbated by activities at Roodekop Coal Mine. Some resettlement is recommended to mitigate noise impacts.	**Moderate negative**	**Minor negative**
Change in Sense of Place: The area to be mined and its surroundings are predominantly rural, with vast farmlands, small communities, and low noise levels. The introduction of the mine will create an eyesore, increase noise levels, possibly increase informal settlement, and change the rural sense of place to an industrial one.	**Minor negative**	**Negligible negative**

10.1.2.3. Decommissioning and Closure Phase Impacts

Table 10-4 on page 106 provides a summary of the socio-economic impacts for the decommissioning and closure phases both pre- and post- mitigation.

Table 10-4: Opencast Decommissioning and Closure Phase Impacts

Impact	Significance Rating	
	Pre-mitigation	Post-mitigation
Retrenchment of Local Employees: The most significant socio-economic impact is the loss of jobs. Those employed from the study area are likely to be unskilled and semi-skilled and therefore less employable than someone who is skilled. It will be more difficult for them to secure other jobs once they are retrenched from Roodekop Coal Mine.	**Moderate**	**Minor**
Loss of Local Economic Development Initiatives: LED initiatives will no longer have the financial and technical support from the mine after closure. This will have an effect on local jobs and the local economy. Projects and initiatives will need to learn how to run independently before mine closure in order to be sustainable beyond the life of the mine.	**Minor negative**	**Negligible negative**

10.1.3. Summary of Estimated Environmental Cost

The cost of environmental impacts associated with the mine was investigated as part of the Environmental Impact Assessment (EIA).

The estimated environmental and rehabilitation costs are indicated in Table 10-6 on page 1077.

Table 10-5: Summary of Estimated Environmental and Rehabilitation Costs

Category	Cost Estimate
a) Progressive total for rehabilitation	631,845,410
b) Cost to mitigate socio-economic conditions of directly affected persons	-
Total Costs	**631,845,410**

Table 10-6: Estimated Environmental and Rehabilitation Costs

Category	Budget Year 01	Budget Year 02	Budget Year 03	Budget Year 04	Budget Year 05	Budget Year 06	Budget Year 07	Budget Year 08	Budget Year 09	Budget Year 10	Budget Year 11
Environmental Liability (Reg 11 (1) (g) (iv))											
Quantum Rehab Guarantee	149,397,987	-	-	-	-	-	-	-	-	-	-
Mine Closure Provision	19,403,748	22,312,705	22,312,705	22,312,705	22,312,705	21,539,492	22,147,016	22,147,016	22,257,475	22,147,016	22,202,257
Total Rehabilitation Funds Available	**168,801,735**	**22,312,705**	**22,312,705**	**22,312,705**	**22,312,705**	**21,539,492**	**22,147,016**	**22,147,016**	**22,257,475**	**22,147,016**	**22,202,257**
Water Treatment Plant Provision				1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000
Total Environmental Provision	**168,801,735**	**22,312,705**	**22,312,705**	**24,004,705**	**24,004,705**	**23,231,492**	**23,839,016**	**23,839,016**	**23,949,475**	**23,839,016**	**23,894,257**
Cost to Mitigate Socio-Economic Condition of Directly Affect Persons	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

Category	Budget Year 12	Budget Year 13	Budget Year 14	Budget Year 15	Budget Year 16	Budget Year 17	Budget Year 18	Budget Year 19	Budget Year 20	Total
Environmental Liability (Reg 11 (1) (g) (iv))										
Quantum Rehab Guarantee	-	-	-	-	-	-	-	-	-	**149,397,987**
Mine Closure Provision	22,153,430	23,279,918	23,231,503	26,014,787	23,010,585	22,202,247	24,543,536	23,858,280	24,294,295	**453,683,423**
Total Rehabilitation Funds Available	**22,153,430**	**23,279,918**	**23,231,503**	**26,014,787**	**23,010,585**	**22,202,247**	**24,543,536**	**23,858,280**	**24,294,295**	**603,081,410**
Water Treatment Plant Provision	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	1,692,000	**28 764 000**
Total Environmental Provision	**23,845,430**	**24,971,918**	**24,923,503**	**27,706,787**	**24,702,585**	**23,894,247**	**26,235,536**	**25,550,280**	**25,986,295**	**631 845 410**
Cost to Mitigate Socio-Economic Condition of Directly Affect Persons	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

10.2. Other Regulatory Costs

Table 10-7: Other Regulatory Costs

Cost	Amount per annum	Explanation on how amount was calculated
Royalties (Average per Annum)	14,975,788	Calculate as per the Mineral Petroleum Resources Royalty Act . Royalty rate = (0.5+((Revenue-Total Cost-Depreciation)/(Revenue*9))*100/100. Royalty = Royalty Rate * Revenue,0.0005*Revenue)
Mine Health and Safety Regulations	1,576,281	Included in wage costs and in SLP Skills Training
Occupational Health	744,000	Cost of service provider
Rates and Taxes	-	No municipal services provided Universal Coal
National Skills Fund	279,114	1 % of Labour Cost
Total Costs	**17,575,183**	

11. Regulation 11 (1) (g) (viii)
Provisions for the Execution of the Social and Labour Plan

11.1. Financial Provision of the Social and Labour Plan

The sections of the SLP are summarised below indicating the plans, programmes, and projects that will be undertaken by UCDIV. The total estimated expenditure on the SLP is indicated in Table 11-3 on page 111. The complete SLP is included as Annexure 17.

11.1.1. Human Resource Development Programme

UCDIV commits to invest a percentage of the annual payroll in skills development activities, excluding the mandatory skills levy, as set by the Mining Charter.

The total planned expenditure on human resource development (HRD) is shown in Table 11-1 below. UCDIV's HRD programme is discussed in detail in the SLP (Annexure 17)

Table 11-1: HRD Expenditure

	Year 01	Year 02	Year 03	Year 04	Year 05	Total
Portable Skills Training	20,000	20,000	20,000	20,000	20,000	**100,000**
Learnerships Internal	10,000	10,000	10,000	10,000	10,000	**50,000**
Learnerships External	35,000	35,000	35,000	35,000	35,000	**175,000**
School Support	-	201,166	106,667	106,667	-	**414,500**
Core Business Training	45,000	50,000	55,000	120,000	130,000	**400,000**
Portable Skills	20,000	20,000	20,000	20,000	20,000	**100,000**
Bursaries Internal	20,000	40,000	45,000	55,000	70,000	**230,000**
Bursaries External	50,000	85,000	110,000	150,000	150,000	**545,000**
Internships	-	42,500	36,000	43,000	78,500	**200,000**
Total	**200,000**	**503,666**	**437,667**	**559,667**	**513,500**	**2,214,500**

11.1.2. Local Economic Development Programme

UCDIV intends to actively drive the delivery of the SLP commitments and to engage in projects that would ensure a sustainable socio-economic future for the communities in which we operate. The aim will be to maximise the synergies that exist with the focus areas of the Local Municipality, mining contractors, and other role players in the areas in which the company operates, as well as the initiatives by government departments, non-governmental, community based and not for profit organisations.

The local economic development (LED) programme will be based on:

- Infrastructure and poverty eradication projects
- Measures to address housing and living conditions of mine employees

- Measures to address nutrition of mine employees
- Procurement Progression Plan

Table 11-2: LED Financial Provision

	Year 01	Year 02	Year 03	Year 04	Year 05	Total
Local Economic Development	3,000,000	1,200,000	600,000	600,000	600,000	**6,000,000**

11.1.3. Management of Downscaling

The mine does not foresee retrenchments in the period of this SLP, however it will engage relevant stakeholders party to the future forum should a need arise to manage such eventuality.

Mechanisms to ameliorate the social and economic impact on individuals, regions and economies where retrenchment or closure of the operation is certain will be discussed on an ongoing bases in the Future Forum and will also be factored in on LED programmes

No downscaling, closure and/or retrenchment are contemplated for the duration of the SLP. UCDIV will facilitate an establishment of future forum that will addresses and complies with the regulations as per the Act within 12 months of the granting of the mining right and execution thereof.

A financial provision will be made during the life of the mine to cater for any retrenchments at the end of the mine's life. An amount equivalent to the life of the mine multiplied by one week's salary plus one month's notice pay will be accumulated for each staff member and set aside for the eventual retrenchment packages for the staff of the mine.

Table 11-3: Estimated Expenditure on the SLP

Item	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Human Resource Development	200,000	503,666	437,667	559,667	513,500	513,500	513,500	513,500	513,500	513,500	513,500
Local Economic Development	3,000,000	1,200,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000
Management of Downscaling	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676
Estimated Totals per Year	**3,653,676**	**2,157,342**	**1,491,343**	**1,613,343**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**

Item	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Human Resource Development	513,500	513,500	513,500	513,500	513,500	513,500	513,500	513,500	513,500	**9,917,000**
Local Economic Development	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	**15,000,000**
Management of Downscaling	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676	453,676	**9,073,524**
Estimated Totals per Year	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**1,567,176**	**33,990,524**

12. Regulation 11 (1) (g) (iv)

Details regarding Other Relevant Costing, Capital Expenditure Requirements, and Expected Revenue Applicable to the Proposed Mining Operation

12.1. Expected Revenue

12.1.1. Explanation of Revenue Determination

The Financial Model reports the net present value (NPV) of real after-tax unleveraged free cash flows generated by the Project, discounted at an annual rate of 10 %. The Financial Model also indicates the internal rate of return (IRR) that an investment in the Project may be expected to yield.

The key assumptions are as follows:

- The Financial Model is based on capital and operating cost estimates, which in turn is based on:
  - A budget quote for underground mining from a reputable mining contractor with a proven track record
  - A budget quote for opencast mining from a reputable mining contractor with a proven track record
  - Budget estimates received from a reputable contractor for the upgrade and refurbishment of the coal handling and processing plant
  - Recent quotes for road construction on similar projects
  - Other infrastructure costs have been received through quotes received from reputable vendors
- The costs for technical services were based on quotes received.
- Overheads and head office costs were based on Universal Coal's actual costs.
- The mine closure and rehabilitation costs and water treatment costs for the NCC Project were based on estimates determined by Digby Wells and Associates for the opencast and by SRK for the NCC underground, CHPP and surface areas and the total was accounted for over the current life of mine (LOM).
- The Study was done to an accuracy of a Class 2 estimate (+15% to -5 %).
  - The base date applied in the Financial Model is 30 January 2015.
  - All values are expressed in ZAR in 2015 monetary terms.
  - Depreciation was based on the straight-line depreciation method and Royalty Tax calculations, based on the formula set out in the MPRDA, have been incorporated in the Financial Model.
  - Sales are based on a primary high-grade product for the Eskom market and a sized low Phos metallurgical product.

Assumptions relating to revenue and costs are summarised in Table 12-1 on page 113.

Table 12-1: Revenue and Cost Assumptions

Summary of Financial Information Applied – Real Money Values	
Total ROM (tonnes)	41,072,587
Annual Average Production	2,053,629
Life of Project (Years)	20
Input Information	
Average Eskom Yield (%)	65.07
Average Low Phos Product Yield (%)	63.96
Marketing Fee (% of Revenue)	0.00%
Eskom Quality – Ash (%) Air-dried	24.00
Low Phos Quality - Ash (%) Air Dried	18.00
Eskom Price ZAR/GJ (as-received)	19.50
Eskom Average Price (ZAR/t Saleable)	459.21
Low Phos Average Price (ZAR/t Saleable)	650.00
Total Revenue (ZAR)	**12,888,962,797.00**
Average Opencast Mining Cost (ZAR/ROMt)	136.84
Average Underground Mining Cost (ZAR/ROMt)	231.73
Processing Cost (ZAR/ROMt)	57.40
Overhead Costs (ZAR/ROMt)	13.49
Power Costs (ZAR/ROMt)	10.35
Head Office (ZAR/Annum)	5% of Revenue
Average Royalty Tax Rate as % of Revenue	2.00%
Social and Labour Plan (ZAR/annum)	1,658,401.22
Closure Cost Provision (ZAR/ROMt)	11.05
Water Treatment Costs (ZAR/annum)	1,692,000.00
Total Average Cost per ROMt	**255.25**
Total Operating Costs	**11,930,123,928.50**
Capital (including Acquisition Capital)	**515,993,477.89**
SIB Capital (ZAR/ROMt)	**4.66**

12.1.2. Revenue Forecast

The revenue forecast calculation is included in Table 12-2 on page 114.

Table 12-2: Revenue Calculation

	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
ROM Production Eskom Product (Mt)	1,586,046	1,661,882	1,660,961	1,614,336	1,721,856	1,782,226	1,859,412	1,888,643	1,887,092	1,891,689	1,842,175
Yield %	64.72%	62.70%	64.38%	64.06%	62.99%	62.36%	62.64%	61.76%	61.89%	61.68%	60.81%
Saleable Product	1,026,564	1,041,982	1,069,394	1,034,224	1,084,587	1,111,451	1,164,809	1,166,451	1,167,899	1,166,857	1,120,304
CV (MJ/kg)	23.45	23.53	23.58	23.49	23.53	23.65	23.62	23.51	23.48	23.65	23.50
Selling Price ZAR/ Sales Tonnes	468.97	470.60	471.60	469.75	470.54	473.09	472.31	470.27	469.62	472.95	470.00
Revenue Eskom Product (ZAR)	**481,422,880**	**490,360,576**	**504,322,809**	**485,827,217**	**510,338,624**	**525,812,039**	**550,150,547**	**548,546,809**	**548,469,622**	**551,865,050**	**526,543,095**
ROM Production Low Phos	170,602	358,118	359,039	405,664	298,144	167,774	145,588	116,357	127,908	113,311	167,826
Yield %	62.06%	59.70%	61.50%	63.69%	65.25%	66.92%	68.18%	66.37%	65.15%	65.41%	65.35%
Saleable Product	105,883	213,806	220,823	258,372	194,538	112,281	99,257	77,227	83,326	74,122	109,681
Ash (%)	18	18	18	18	18	18	18	18	18	18	18
Selling Price ZAR/ Sales Tonnes	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00
Revenue Low Phos Product (ZAR)	**68,824,069**	**138,973,837**	**143,534,677**	**167,941,828**	**126,449,494**	**72,982,926**	**64,517,349**	**50,197,671**	**54,161,980**	**48,179,138**	**71,292,926**
Total Revenue (ZAR)	**550,246,949**	**629,334,413**	**647,857,486**	**653,769,045**	**636,788,118**	**598,794,965**	**614,667,897**	**598,744,480**	**602,631,602**	**600,044,188**	**597,836,021**

	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
ROM Production Eskom Product (Mt)	1,683,121	2,107,563	2,103,180	2,355,155	2,083,180	2,010,000	2,221,960	2,159,923	2,199,396	**38,319,796**
Yield %	60.44%	68.14%	68.83%	69.72%	69.10%	67.85%	68.50%	67.84%	65.83%	
Saleable Product	1,017,220	1,435,999	1,447,695	1,642,083	1,439,479	1,363,785	1,522,041	1,465,195	1,447,774	**24,935,792**
CV (MJ/kg)	23.57	23.61	23.49	23.55	23.65	23.46	23.51	23.67	23.47	
Selling Price ZAR/ Sales Tonnes	471.40	472.20	469.80	471.00	473.00	469.20	470.20	473.40	469.40	
Revenue Eskom Product (ZAR)	**479,517,531**	**678,078,495**	**680,126,988**	**773,421,136**	**680,873,399**	**639,887,791**	**715,663,786**	**693,623,395**	**679,585,101**	**11,744,436,890**
ROM Production Low Phos	322,460	-	-	-	-	-	-	-	-	**2,752,791**
Yield %	65.59%	-	-	-	-	-	-	-	-	
Saleable Product	211,492	-	-	-	-	-	-	-	-	**1,760,809**
Ash (%)	18	-	-	-	-	-	-	-	-	
Selling Price ZAR/ Sales Tonnes	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	
Revenue Low Phos Product (ZAR)	**137,470,011**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,144,525,907**
Total Revenue (ZAR)	**616,987,541**	**678,078,495**	**680,126,988**	**773,421,136**	**680,873,399**	**639,887,791**	**715,663,786**	**693,623,395**	**679,585,101**	**12,888,962,797**

12.2. Estimated Capital Expenditure

Universal Coal's financial year runs from July to June. The base date applied to the capital costs estimate is January 2015 and all values in the Financial Model are expressed in January 2015 values. The base currency is ZAR.

12.2.1. Initial Capital Expenditure

The initial estimated establishment capital is shown in Table 12-3.

Table 12-3: Initial Estimated Capital Expenditure

Category	Capital Item	Cost
Mining	Box Cut	73,785,359
	Grade Control	290,120
	Total Mining	**74,075,479**
Plant / Processing	**Plant upgrade and Refurbishment**	**64,406,313**
Infrastructure	Weighbridges	4,500,000
	Exxaro Road Upgrade 1.5 km	1,920,000
	Environmental costs NCC Discard Facility (R472k for design)	10,000,000
	Infrastructure Power Supply	4,000,000
	-Infrastructure(Mine) Contingencies	12,411,564
	Total Infrastructure	**32,831,564**
Environmental	**Specialist Studies**	**3,839,760**
General	Office Equipment, Software, etc.	1,200,000
	Acquisition Costs	81,803,199
	Total General	**83,003,199**
Total		**258,156,314.4**
Quantum Rehab Guarantee		149,397,987
Owners Costs	Start-up Opencast	13,682,191
EPCM	Will be done by Owner's team	-
Contingency	Costs based on quotes or actuals	-
Escalation	All 2015 Money values	-
Total		**421,236,493**

12.2.2. Ongoing Capital Expenditure

Ongoing capital expenditure (Stay-in-Business or SIB Capital) relates to replacement of equipment and or sub-assemblies during the LOM. As the operation is fully outsourced, minimal ongoing capital expenditure is required, and ZAR 4.66/ROMt is provided under working costs for the CHPP. The only ongoing capital is for the water treatment plant and site de-establishment, as indicated in Table 12-4 on page 117.

Table 12-4: Ongoing Capital Expenditure

	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Water Treatment Plant	-	-	9,529,364	1,250,000	-	-	-	-	-	-	-
Site De-Establishment on completion	-	-	-	-	-	-	-	-	-	-	3,851,305
Total	**-**	**-**	**9,529,364**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**	**3,851,305**

	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Water Treatment Plant	-	-	-	-	-	-	-	-	-	**10,779,364**
Site De-establishment on completion	-	-	-	-	-	-	-	-	-	**3,851,305**
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**14,630,669**

12.2.3. Summary of Capital Expenditure

The total capital required over the life of the project is indicated in Table 12-5 on page 118.

12.3. Explanation and Summary of Other Costs

Table 12-6 on page 118 reflects a summary of the 'other costs' over the life of the Project.

12.4. Summary of Capital and Other Costs

The Capital and Other Expenses are indicated in Table 12-7 on page 119

Table 12-5: LOM Capital Expenditure

	Year 00	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10
Initial Capital	336,989,194	84,247,299	-	-	-	-	-	-	-	-	-
Ongoing Capital Expenditure	-	-	9,529,364	1,250,000	-	-	-	-	-	-	3,851,305
Total	**336,989,194**	**84,247,299**	**9,529,364**	**1,250,000**	**-**	**-**	**-**	**-**	**-**	**-**	**3,851,305**

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Initial Capital	-	-	-	-	-	-	-	-	-	-	421,236,493
Ongoing Capital Expenditure	-	-	-	-	-	-	-	-	-	-	14,630,669
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**435,867,162**

Table 12-6: Summary of Other Costs

	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10	Year 11
Royalties	-	15,339,907	17,574,545	18,248,072	16,277,653	13,485,238	13,538,117	11,683,366	11,809,285	11,833,501	11,410,127
Head Office Costs	27,512,347	31,466,721	32,392,874	32,688,452	31,839,406	29,939,748	30,733,395	29,937,224	30,131,580	30,002,209	29,891,801
Total Other	**27,512,347**	**46,806,628**	**49,967,420**	**50,936,525**	**48,117,058**	**43,424,986**	**44,271,512**	**41,620,590**	**41,940,865**	**41,835,710**	**41,301,928**

	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Royalties	13,548,657	13,994,458	14,338,047	20,639,044	19,402,753	16,331,314	21,229,141	20,080,498	18,752,038	**299,515,762**
Head Office Costs	30,849,377	33,903,925	34,006,349	38,671,057	34,043,670	31,994,390	35,783,189	34,681,170	33,979,255	**644,448,140**
Total Other	**44,398,034**	**47,898,383**	**48,344,397**	**59,310,101**	**53,446,423**	**48,325,704**	**57,012,330**	**54,761,667**	**52,731,293**	**943,963,901**

Table 12-7: Summary of Capital and Other Expenses

	Year 00	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10
Initial Capital	336,989,194	84,247,299	-	-	-	-	-	-	-	-	-
Ongoing Capital Expenditure		-	-	9,529,364	1,250,000	-	-	-	-	-	-
Other Costs		27,512,347	46,806,628	49,967,420	50,936,525	48,117,058	43,424,986	44,271,512	41,620,590	41,940,865	41,835,710
Total Capital	**336,989,194**	**111,759,646**	**46,806,628**	**59,496,784**	**52,186,525**	**48,117,058**	**43,424,986**	**44,271,512**	**41,620,590**	**41,940,865**	**41,835,710**

	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Initial Capital	-	-	-	-	-	-	-	-	-	-	**421,236,493**
Ongoing Capital Expenditure	3,851,305	-	-	-	-	-	-	-	-	-	**14,630,669**
Other Costs	41,301,928	44,398,034	47,898,383	48,344,397	59,310,101	53,446,423	48,325,704	57,012,330	54,761,667	52,731,293	**943,963,901**
Total Capital	**45,153,233**	**44,398,034**	**47,898,383**	**48,344,397**	**59,310,101**	**53,446,423**	**48,325,704**	**57,012,330**	**54,761,667**	**52,731,293**	**1,379,831,063**

13. Regulation 11 (1) (g) (vi)

Detailed Cash Flow Forecast and Valuation, Excluding Financing of the Proposed Mining Operation, which Forecast must also Clearly Indicate How the Applicable Regulatory Costs will be Accommodated Therein

The Cash Flow Forecast and Valuation is provided in Table 13-1 on page 121. The forecast excludes the financing of the proposed mining operation. The forecast also indicates how the applicable regulatory costs will be accommodated.

Table 13-1: Cash Flow Forecast and Valuation

Regulation	Year 00	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10
Regulation 11 (1) (d) and (f) Production (Eskom)	-	1,026,564	1,041,982	1,069,394	1,034,224	1,084,587	1,111,451	1,164,809	1,166,451	1,167,899	1,166,857
Regulation 11 (1) (d) and (f) Production (Product 2)	-	105,883	213,806	220,823	258,372	194,538	112,281	99,257	77,227	83,326	74,122
Regulation 11 (1) (e) Price (Product 1)	-	468.97	470.60	471.60	469.75	470.54	473.09	472.31	470.27	469.62	472.95
Regulation 11 (1) (e) Price (Product 2)	-	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00
Revenue	**-**	**550,246,949**	**629,334,413**	**647,857,486**	**653,769,045**	**636,788,118**	**598,794,965**	**614,667,897**	**598,744,480**	**602,631,602**	**600,044,188**
Regulation 11 (1) (g) (i) Mining Costs	-	269,708,713	318,437,804	318,437,804	318,437,804	318,437,804	308,634,485	320,991,407	320,991,407	323,238,120	320,991,407
Regulation 11 (1) (g) (1) Technology Costs	-	94,886,250	111,381,930	111,292,798	111,286,635	111,321,511	107,326,930	110,473,785	110,526,570	111,098,171	110,533,557
Regulation 11 (1) (g) (iii) Technical Skills Costs	-	41,806,387	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157
Regulation 11 (g) (iv) Regulatory Requirements	-	170,493,735	24,004,705	24,004,705	24,004,705	24,004,705	23,231,492	23,839,016	23,839,016	23,949,475	23,839,016
Regulation 11 (1) (g) (viii) SLP Costs	-	3,653,676	2,157,342	1,491,343	1,613,343	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176
Regulation 11 (1) (g) (v) Capital and Other	336,989,194	111,759,646	46,806,628	59,496,784	52,186,525	48,117,058	43,424,986	44,271,512	41,620,590	41,940,865	41,835,710
Working Profit / Loss		**-142,061,458**	**84,725,848**	**91,313,897**	**104,419,877**	**91,519,707**	**72,789,739**	**71,704,844**	**58,379,564**	**59,017,638**	**59,457,165**
Depreciation		**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**
Tax		**-**	**17,621,097**	**19,465,751**	**23,135,425**	**19,523,378**	**14,278,987**	**13,975,216**	**10,244,138**	**10,422,798**	**10,545,866**
Net Cash Flow		**-142,061,458**	**67,104,751**	**71,848,146**	**81,284,452**	**71,996,329**	**58,510,752**	**57,729,628**	**48,135,426**	**48,594,839**	**48,911,299**
Discounted Cash Flow		**-142,061,458**	**61,004,319**	**59,378,633**	**61,070,212**	**49,174,462**	**36,330,574**	**32,586,870**	**24,701,085**	**22,669,851**	**20,743,165**

Regulation	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Regulation 11 (1) (d) and (f) Production (Eskom)	470.00	471.40	472.20	469.80	471.00	473.00	469.20	470.20	473.40	469.40	**9,419**
Regulation 11 (1) (d) and (f) Production (Product 2)	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	650.00	**13,000**
Regulation 11 (1) (e) Price (Product 1)	**597,836,021**	**616,987,541**	**678,078,495**	**680,126,988**	**773,421,136**	**680,873,399**	**639,887,791**	**715,663,786**	**693,623,395**	**679,585,101**	**12,888,962,797**
Regulation 11 (1) (e) Price (Product 2)	322,114,903	323,188,315	376,397,695	375,783,864	399,391,991	332,363,446	322,114,776	342,758,841	334,269,775	328,741,365	**6,595,431,723**
Revenue	110,857,646	110,599,635	116,091,598	115,802,219	130,194,221	114,641,207	110,511,199	122,631,324	119,111,223	121,489,737	**2,262,058,146**
Regulation 11 (1) (g) (i) Mining Costs	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	41,820,157	**836,389,361**
Regulation 11 (1) (g) (1) Technology Costs	23,894,257	23,845,430	24,971,918	24,923,503	27,706,787	24,702,585	23,894,247	26,235,536	25,550,280	25,986,295	**636,921,410**
Regulation 11 (1) (g) (iii) Technical Skills Costs	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	1,567,176	**33,990,524**
Regulation 11 (g) (iv) Regulatory Requirements	45,153,233	44,398,034	47,898,383	48,344,397	59,310,101	53,446,423	48,325,704	57,012,330	54,761,667	52,731,293	**1,379,831,063**
Regulation 11 (1) (g) (viii) SLP Costs	**52,428,648**	**71,568,795**	**69,331,569**	**71,885,672**	**113,430,703**	**112,332,406**	**91,654,533**	**123,638,423**	**116,543,116**	**107,249,078**	**1,144,340,569**
Regulation 11 (1) (g) (v) Capital and Other	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**21,793,358**	**435,867,162**
Working Profit / Loss	**8,577,881**	**13,937,122**	**13,310,699**	**14,025,848**	**25,658,457**	**25,350,933**	**19,561,129**	**28,516,618**	**26,529,932**	**23,927,602**	**338,608,877**
Depreciation	43,850,767	57,631,673	56,020,870	57,859,824	87,772,247	86,981,472	72,093,404	95,121,805	90,013,184	83,321,477	1,142,720,887
Tax	**16,906,369**	**20,199,550**	**17,849,976**	**16,759,930**	**23,113,176**	**20,822,673**	**15,689,625**	**18,819,342**	**16,189,662**	**13,623,727**	**405,571,742**
Net Cash Flow	470.00	471.40	472.20	469.80	471.00	473.00	469.20	470.20	473.40	469.40	9,419
Discounted Cash Flow	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**650.00**	**13,000**

14. Regulation 11 (1) (g) (vii)

Details regarding the Applicants Resources or Proposed Mechanisms to Finance the Proposed Mining Operation, and Details regarding the Impact of such Financing Arrangements on the Cash Flow Forecast

14.1. Financing the Cash Flow

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

Table 14-1: Financing the Cash Flow

Regulation	Year 00	Year 01	Year 02	Year 03	Year 04	Year 05	Year 06	Year 07	Year 08	Year 09	Year 10
Funding Structure											
Debt		215 000 000									
Equity	401 090 247	28 000 000									
Retained Earnings		-	68 547 025	73 290 420	82 726 725	73 438 603	59 953 026	59 171 902	49 577 700	50 037 113	50 353 573
Surplus / (deficit)		**12 919 765**	**68 547 025**	**73 290 420**	**82 726 725**	**73 438 603**	**59 953 026**	**59 171 902**	**49 577 700**	**50 037 113**	**50 353 573**
Cash after debt service		12 919 765	1 787 790	672 085	14 265 560	23 843 788	83 796 814	142 968 716	192 546 416	242 583 529	292 937 102
** historic capex, equity funded*											
Debt Repayment profile											
Drawdown		215 000 000	234 350 000	175 762 500	117 175 000	58 587 500	-	-	-	-	-
Interest capitalised		19 350 000	21 091 500	15 818 625	10 545 750	5 272 875					
Interest paid		-	-21 091 500	-15 818 625	-10 545 750	-5 272 875					
Scheduled repayments		-	-58 587 500	-58 587 500	-58 587 500	-58 587 500					
Closing balance		**234 350 000**	**175 762 500**	**117 175 000**	**58 587 500**	**-**	**-**	**-**	**-**	**-**	**-**

Regulation	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Total
Funding Structure											
Debt	-	-	-	-	-	-	-	-	-	-	-
Equity	-	-	-	-	-	-	-	-	-	-	-
Retained Earnings	45 293 041	59 073 946	57 463 143	59 302 098	89 214 520	88 423 746	73 535 678	96 564 078	91 455 458	84 763 750	1 082 105 309
Surplus / (deficit)	**45 293 041**	59 073 946	57 463 143	59 302 098	89 214 520	88 423 746	73 535 678	96 564 078	91 455 458	84 763 750	1 082 105 309
Cash after debt service	338 230 143	397 304 089	454 767 232	514 069 330	603 283 850	691 707 596	765 243 274	861 807 352	953 262 810	1 038 026 560	2 120 131 869
** historic capex, equity funded*											
Debt Repayment profile											
Drawdown	-	-	-	-	-	-	-	-	-	-	-
Interest capitalised	-	-	-	-	-	-	-	-	-	-	-
Interest paid	-	-	-	-	-	-	-	-	-	-	-
Scheduled repayments	-	-	-	-	-	-	-	-	-	-	-
Closing balance	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

14.2. Detail regarding the Financing Arrangements

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

- Refer to Annexure 19

14.3. Confirmation of Supporting Evidence Appended

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

- Refer to Annexure 18 and 19

15. Regulation 11 (1) (h)

Undertaking, Signed by the Applicant, to adhere to the Proposal as set out in the Mining Works Programme

By signing this document, the Applicant undertakes to adhere to the proposals as set out in the MWP.

Herewith I, the person whose name and identity number is stated below, confirm that I am the Applicant or the person authorised to act as representative of the Applicant in terms of resolution submitted with the application, and undertake to implement this mining work programme and adhere to the proposals set out herein.	
Full Names and Surname	Minah Moabi
Identity Number	7901190390080