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AIDS HELPLINE: 0800-0123-22 Prevention is the cure

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GOVERNMENT NOTICES

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 1281　　　　　　　　　　　　　　　　　　**12 September 2003**

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Mining and Minerals

Registered by **NSB 06, Manufacturing, Engineering and Technology** publishes the following unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the unit standards upon which qualifications are based. The unit standards can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield.

Comment on the unit standards should reach SAQA at the address *below and no later than 13 Octobert 2003*. All correspondence should be marked **Standards Setting – SGB for Mining and Minerals** and addressed to

> The Director: Standards Setting and Development
> SAQA
> *Attention: Mr. D Mphuthing*
> Postnet Suite 248
> Private Bag X06
> Waterkloof
> 0145
> or faxed to 012 – 431 5144
> e-mail: mmphuthing@saqa.co.za

JOE SAMUELS
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 1

Clean plant and equipment

SAQA US ID	UNIT STANDARD TITLE				
110209	Clean plant and equipment				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 1		3

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate an understanding of the cleaning of plant and equipment.

SPECIFIC OUTCOME 2
Prepare for cleaning.

SPECIFIC OUTCOME 3
Clean machinery and equipment.

SPECIFIC OUTCOME 4
Adhere to safety and health requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 2

Demonstrate a basic knowledge and understanding of typical surface mining processes and layouts

SAQA US ID	UNIT STANDARD TITLE			
110194	Demonstrate a basic knowledge and understanding of typical surface mining processes and layouts			

SGB NAME	ABET BAND	PROVIDER NAME		
SGB Mining and Minerals	Undefined			

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 1	6

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate basic knowledge of overburden removal.

SPECIFIC OUTCOME 2
Explain basic methods of rockbreaking.

SPECIFIC OUTCOME 3
Describe basic methods of loading and hauling.

SPECIFIC OUTCOME 4
Explain basic methods of rehabilitation.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 3

Demonstrate a basic knowledge and understanding of typical underground coal mining processes and layouts

SAQA US ID	UNIT STANDARD TITLE			
110148	Demonstrate a basic knowledge and understanding of typical underground coal mining processes and layouts			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate basic knowledge of coal breaking.

SPECIFIC OUTCOME 2

Explain basic methods of loading coal.

SPECIFIC OUTCOME 3

Explain basic methods of transporting coal.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　　　　4

Demonstrate a basic understanding of small-scale mining

SAQA US ID	UNIT STANDARD TITLE		
110128	Demonstrate a basic understanding of small-scale mining		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1	3

Specific Outcomes:

SPECIFIC OUTCOME 1
Describe current small-scale mining activity in South Africa.

SPECIFIC OUTCOME 2
Describe the small-scale mining methods.

SPECIFIC OUTCOME 3
Describe small-scale mineral processing methods.

SPECIFIC OUTCOME 4
Describe the characteristics of the marketing of small-scale mineral commodities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 5

Demonstrate a basic understanding of the history of small-scale mining

SAQA US ID	UNIT STANDARD TITLE				
110140	Demonstrate a basic understanding of the history of small-scale mining				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular		Level 1		1

Specific Outcomes:

SPECIFIC OUTCOME **1**

Describe the history of small-scale mining.

SPECIFIC OUTCOME **2**

Describe the mineral rights system prior to the promulgation of the Mineral and Petroleum.

SPECIFIC OUTCOME **3**

Describe the key elements in the new Mineral and Petroleum Resource Bill.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　　　　6

Demonstrate a basic understanding of the statutory requirements for the establishment of a small-scale mine

SAQA US ID	UNIT STANDARD TITLE				
110149	Demonstrate a basic understanding of the statutory requirements for the establishment of a small-scale mine				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular		Level 1		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate a basic understanding of general legislation pertaining to the mining industry.

SPECIFIC OUTCOME 2

Demonstrate a basic understanding of the key elements of the mineral specific acts.

SPECIFIC OUTCOME 3

Demonstrate a basic understanding of the legal requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 7

Demonstrate a basic understanding of the use of tools and equipment used for processing diamonds

SAQA US ID	UNIT STANDARD TITLE				
110219	Demonstrate a basic understanding of the use of tools and equipment used for processing diamonds				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular		Level 1		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the tools and equipment used in the processing of diamond gemstones.

SPECIFIC OUTCOME 2

Describe the basic application of the tools and equipment used in diamond processing.

SPECIFIC OUTCOME 3

Explain the importance of care for tools and equipment.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 8

Demonstrate a basic understanding of where to obtain information on mineral deposit in South Africa

SAQA US ID	UNIT STANDARD TITLE			
110145	Demonstrate a basic understanding of where to obtain information on mineral deposit in South Africa			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the location of economic minerals in South Africa.

SPECIFIC OUTCOME 2

Name and describe the sources of information used to locate mineral deposits.

SPECIFIC OUTCOME 3

Give the information required to describe mineral deposits.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 9

Demonstrate an awareness of customer service

SAQA US ID	UNIT STANDARD TITLE		
110200	Demonstrate an awareness of customer service		

SGB NAME		ABET BAND	PROVIDER NAME
SGB Mining and Minerals		Undefined	

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 1	2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to customer service.

SPECIFIC OUTCOME 2

Respond to customer requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 10

Demonstrate basic knowledge of applicable mine gases

SAQA US ID	UNIT STANDARD TITLE			
110177	Demonstrate basic knowledge of applicable mine gases			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of the applicable gases.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 11

Demonstrate basic knowledge of plan reading

SAQA US ID	UNIT STANDARD TITLE			
110173	Demonstrate basic knowledge of plan reading			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge and understanding of basic plan reading.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　12

Demonstrate basic understanding of different activities related to extraction of minerals

SAQA US ID	UNIT STANDARD TITLE				
110139	Demonstrate basic understanding of different activities related to extraction of minerals				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 1		6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate basic understanding of commissioning processes of a mine for the extraction of minerals.

SPECIFIC OUTCOME 2

Demonstrate basic understanding of the processes involved in the extraction of minerals on a mine.

SPECIFIC OUTCOME 3

Demonstrate the basic understanding of the processes involved in the decommissioning of a mine.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 13

Demonstrate knowledge and ability to work in a surface mine

SAQA US ID	UNIT STANDARD TITLE			
110191	Demonstrate knowledge and ability to work in a surface mine			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 1		8

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the requirements of the relevant aspects of the Mine Health and Safety Act.

SPECIFIC OUTCOME 2
Demonstrate understanding of emergency procedures.

SPECIFIC OUTCOME 3
Demonstrate an awareness of strata conditions.

SPECIFIC OUTCOME 4
Demonstrate an awareness of applicable I.S.O. standards.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　14

Demonstrate knowledge of how a business works in the Mining and Minerals Sector

SAQA US ID	UNIT STANDARD TITLE				
110121	Demonstrate knowledge of how a business works in the Mining and Minerals Sector				

SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			

FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 1	2

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge of business principles.

SPECIFIC OUTCOME 2
Demonstrate knowledge of key factors of business in the mining and minerals sector.

SPECIFIC OUTCOME 3
Demonstrate knowledge of key tools to measure and manage a business.

SPECIFIC OUTCOME 4
Demonstrate an understanding of the business they are, or intend to be involved in.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 15

Demonstrate knowledge of the most common harmful gases and vapours

SAQA US ID	UNIT STANDARD TITLE			
110118	Demonstrate knowledge of the most common harmful gases and vapours			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the specified requirements pertaining to these gases and vapours.

SPECIFIC OUTCOME 2

Describe the characteristics, sources, occurrence and effects of these gases and vapours.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 16

Demonstrate knowledge of the relevant terminology used in mining

SAQA US ID	UNIT STANDARD TITLE			
110136	Demonstrate knowledge of the relevant terminology used in mining			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of basic mining terminology.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

17

Demonstrate knowledge to feed and break coal using a feeder breaker

SAQA US ID	UNIT STANDARD TITLE		
110180	Demonstrate knowledge to feed and break coal using a feeder breaker		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1	1

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of basic feeding and breaking principles.

SPECIFIC OUTCOME 2

Demonstrate knowledge of basic health and safety principles pertaining to the feeder breaker.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 18

Demonstrate knowledge to install a ventilation curtain

SAQA US ID	UNIT STANDARD TITLE			
110157	Demonstrate knowledge to install a ventilation curtain			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of basic ventilation curtain principles and installation methods.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 21

Describe the history of the diamond processing industry

SAQA US ID	UNIT STANDARD TITLE			
110123	Describe the history of the diamond processing industry			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 1		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the stages of development of the diamond processing industry.

SPECIFIC OUTCOME 2

Identify the main diamond processing countries and describe their evolution.

SPECIFIC OUTCOME 3

Demonstrate knowledge of famous diamond gemstones.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 22

Describe the shapes and applications of diamond gemstones

SAQA US ID	UNIT STANDARD TITLE			
110129	Describe the shapes and applications of diamond gemstones			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 1		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the shapes of processed diamond gemstones.

SPECIFIC OUTCOME 2

Identify the main diamond processing techniques that create the shapes.

SPECIFIC OUTCOME 3

Explain the main applications of the different diamond gemstone shapes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 23

Condition material for further processing

SAQA US ID	UNIT STANDARD TITLE			
110115	Condition material for further processing			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-ENG-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the conditioning process.

SPECIFIC OUTCOME 2

Prepare to condition material.

SPECIFIC OUTCOME 3

Condition material.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the conditioning process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 24

Conduct weighbridge operations

SAQA US ID	UNIT STANDARD TITLE			
110211	Conduct weighbridge operations			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate an understanding of weighbridge operations.

SPECIFIC OUTCOME 2

Plan and prepare for weighbridge operation.

SPECIFIC OUTCOME 3

Operate the weighbridge.

SPECIFIC OUTCOME 4

Adhere to legal, safety and health requirements.

SOUTH
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QUALIFICATIONS
AUTHORITY

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

25

Control the pH level in metallurgical process

SAQA US ID	UNIT STANDARD TITLE			
110162	Control the pH level in metallurgical process			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the controlling of the pH level.

SPECIFIC OUTCOME 2

Prepare to control the pH level.

SPECIFIC OUTCOME 3

Control the pH level.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the controlling process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 26

Demonstrate basic knowledge and use of a hand held fire extiguisher

SAQA US ID	UNIT STANDARD TITLE				
110192	Demonstrate basic knowledge and use of a hand held fire extiguisher				
SGB NAME			ABET BAND	PROVIDER NAME	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM		Regular	Level 2		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the factors pertaining to the use of a hand held fire extinguisher.

SPECIFIC OUTCOME 2

Use a hand held fire-fighting extinguisher.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 27

Demonstrate basic knowledge of strata support in an undergound coal mine

SAQA US ID	UNIT STANDARD TITLE			
110202	Demonstrate basic knowledge of strata support in an undergound coal mine			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the principles of primary support.

SPECIFIC OUTCOME 2

Explain the principles of secondary support.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 28

Demonstrate knowledge of the Mine Health and Safety Act, regulations and definitions

SAQA US ID	UNIT STANDARD TITLE			
110205	Demonstrate knowledge of the Mine Health and Safety Act, regulations and definitions			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the relevant requirements of the Mine Health and Safety Act (29/1996).

SPECIFIC OUTCOME 2

Explain the relevant requirements of the Regulations.

SPECIFIC OUTCOME 3

Explain the contents of the relevant definitions.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 29

Demonstrate knowledge to sound and bar down roof and side wall in an underground coal mine

SAQA US ID	UNIT STANDARD TITLE			
110198	Demonstrate knowledge to sound and bar down roof and side wall in an underground coal mine			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 2		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the preparation to sound and bar roof and side walls.

SPECIFIC OUTCOME 2

Explain the barring and sounding procedures of roof and side walls.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 30

Determine velocity of air in a workplace by means of the tape method and take appropriate action

SAQA US ID	UNIT STANDARD TITLE		
110122	Determine velocity of air in a workplace by means of the tape method and take appropriate action		

SGB NAME		ABET BAND	PROVIDER NAME
SGB Mining and Minerals		Undefined	

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	1

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the specified requirements pertaining to determining the velocity of air.

SPECIFIC OUTCOME 2

Prepare to determine velocity.

SPECIFIC OUTCOME 3

Determine and record velocity of air.

SPECIFIC OUTCOME 4

Perform post measurement activities and take appropriate action.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 31

Dry material for analytical purposes.

SAQA US ID	UNIT STANDARD TITLE			
110178	Dry material for analytical purposes.			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to drying of material.

SPECIFIC OUTCOME 2

Dry the material for analytical purposes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

32

Install a rack type cable support system

SAQA US ID	UNIT STANDARD TITLE				
110138	Install a rack type cable support system				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the installation of a rack type cable support system.

SPECIFIC OUTCOME 2

Prepare to install a rack type cable support system.

SPECIFIC OUTCOME 3

Install the rack type cable support system.

SPECIFIC OUTCOME 4

Perform reporting and housekeeping duties.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 33

Install underground workplace ventilation controls

SAQA US ID	UNIT STANDARD TITLE				
110127	Install underground workplace ventilation controls				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the specified requirements regarding the installation of ventilation controls.

SPECIFIC OUTCOME 2

Prepare to install ventilation controls.

SPECIFIC OUTCOME 3

Install ventilation controls.

SPECIFIC OUTCOME 4

Perform post installation activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 34

Lift and move a load using a Tugger Winch

SAQA US ID	UNIT STANDARD TITLE			
110163	Lift and move a load using a Tugger Winch			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the factors critical to lifting and moving loads.

SPECIFIC OUTCOME 2

Prepare to Lift and Move the Load.

SPECIFIC OUTCOME 3

Lift and Move a Load.

SPECIFIC OUTCOME 4

Make the Load Available for Production Purposes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

35

Load and stockpile outside materials

SAQA US ID	UNIT STANDARD TITLE				
110216	Load and stockpile outside materials				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2		12

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate an understanding of the loading out and stockpiling of outside materials.

SPECIFIC OUTCOME 2
Prepare the stockpiling area.

SPECIFIC OUTCOME 3
Place material onto stockpile.

SPECIFIC OUTCOME 4
Monitor and control loading out and stockpiling operations.

SPECIFIC OUTCOME 5
Adhere to safety and health requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　36

Load and unload tankers with fine dry powdered material

SAQA US ID	UNIT STANDARD TITLE			
110175	Load and unload tankers with fine dry powdered material			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		6

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate understanding of the loading and offloading of tankers.

SPECIFIC OUTCOME 2
Prepare for loading and offloading.

SPECIFIC OUTCOME 3
Load tankers.

SPECIFIC OUTCOME 4
Offload tankers.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 37

Maintain steel ball load in a mill by means of a suspended magnetic loading system

SAQA US ID	UNIT STANDARD TITLE			
110171	Maintain steel ball load in a mill by means of a suspended magnetic loading system			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the maintaining of steel ball load.

SPECIFIC OUTCOME 2
Prepare to load steel balls.

SPECIFIC OUTCOME 3
Load steel balls.

SPECIFIC OUTCOME 4
Complete the duties pertaining to the steel ball loading operation.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 38

Make up a hydraulic hose with fittings

SAQA US ID	UNIT STANDARD TITLE			
110150	Make up a hydraulic hose with fittings			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2	2

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the factors critical to making up a hydraulic hose with fittings.

SPECIFIC OUTCOME 2
Prepare to make up the hydraulic hose with fittings.

SPECIFIC OUTCOME 3
Make up the hydraulic hose with fittings.

SPECIFIC OUTCOME 4
Complete the process and prepare for operation and/or production.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 39

Make up sulphurous acid in a metallurgical plant

SAQA US ID	UNIT STANDARD TITLE				
110189	Make up sulphurous acid in a metallurgical plant				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the make up of sulphurous acid.

SPECIFIC OUTCOME 2

Prepare to make up sulphurous acid.

SPECIFIC OUTCOME 3

Make up sulphurous acid.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the sulphurous acid make up process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 40

Make-up a sodium formate solution in a metallurgical plant

SAQA US ID	UNIT STANDARD TITLE			
110170	Make-up a sodium formate solution in a metallurgical plant			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the making up of a sodium formate solution.

SPECIFIC OUTCOME 2

Prepare to make-up a sodium formate solution.

SPECIFIC OUTCOME 3

Make-up a sodium formate solution.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the making up of a sodium formate solution.

SOUTH
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Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

41

Make-up sodium hydrosulphide solution in a metallurgical plant

SAQA US ID	UNIT STANDARD TITLE			
110147	Make-up sodium hydrosulphide solution in a metallurgical plant			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MAP	Regular	Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the making up of a sodium hydrosulphide solution.

SPECIFIC OUTCOME 2

Prepare to make-up a sodium hydrosulphide solution.

SPECIFIC OUTCOME 3

Make-up a sodium hydrosulphide solution.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the making up of a sodium hydrosulphide solution.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 42

Operate a Pipe Crane

SAQA US ID	UNIT STANDARD TITLE				
110156	Operate a Pipe Crane				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the factors critical to transport Persons.

SPECIFIC OUTCOME 2
Prepare to transport Persons.

SPECIFIC OUTCOME 3
Transport persons.

SPECIFIC OUTCOME 4
Monitor transporting of persons.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 43

Operate a Working Platform

SAQA US ID	UNIT STANDARD TITLE			
110151	Operate a Working Platform			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the factors critical to the operation of a working platform.

SPECIFIC OUTCOME 2

Prepare to operate a Working Platform.

SPECIFIC OUTCOME 3

Operate a Working Platform.

SPECIFIC OUTCOME 4

Monitor a Working Platform.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

44

Package dry mineral products into bags

SAQA US ID	UNIT STANDARD TITLE				
110135	Package dry mineral products into bags				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MAP	Regular		Level 2		7

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate an understanding of packing of mineral products.

SPECIFIC OUTCOME 2

Plan and prepare for product packaging.

SPECIFIC OUTCOME 3

Pack product into bags.

SPECIFIC OUTCOME 4

Adhere to safety and health requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

46

Re-cloth a belt filter

SAQA US ID	UNIT STANDARD TITLE				
110114	Re-cloth a belt filter				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 2		7

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the replacement of a filter cloth.

SPECIFIC OUTCOME 2

Prepare to replace a filter cloth.

SPECIFIC OUTCOME 3

Replace a filter cloth.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the replacement of a filter cloth.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　45

Produce briquettes from fine material

SAQA US ID	UNIT STANDARD TITLE		
110208	Produce briquettes from fine material		

SGB NAME		ABET BAND	PROVIDER NAME
SGB Mining and Minerals		Undefined	

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the briquetting process.

SPECIFIC OUTCOME 2

Prepare to produce briquettes.

SPECIFIC OUTCOME 3

Produce briquettes.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the briquetting process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 47

Re-cloth a drum filter

SAQA US ID	UNIT STANDARD TITLE				
110155	Re-cloth a drum filter				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 2		7

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the replacement of a filter cloth.

SPECIFIC OUTCOME 2
Prepare to replace a filter cloth.

SPECIFIC OUTCOME 3
Replace a filter cloth.

SPECIFIC OUTCOME 4
Complete the duties pertaining to the replacement of a filter cloth.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

48

Re-cloth a filter press

SAQA US ID	UNIT STANDARD TITLE				
110160	Re-cloth a filter press				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**			**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2			7

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the replacement of a filter cloth.

SPECIFIC OUTCOME 2
Prepare to replace a filter cloth.

SPECIFIC OUTCOME 3
Replace a filter cloth.

SPECIFIC OUTCOME 4
Complete the duties pertaining to the replacement of a filter cloth.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 49

Recover organic solvent from an aqueous metal compound solution by means of a distillation process

SAQA US ID	UNIT STANDARD TITLE			
110185	Recover organic solvent from an aqueous metal compound solution by means of a distillation process			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the distillation of organic solvent.

SPECIFIC OUTCOME 2

Prepare to distil organic solvent.

SPECIFIC OUTCOME 3

Distil organic solvent.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the distillation of organic solvent.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 50

Recover platinum group metals from waste organic solvent

SAQA US ID	UNIT STANDARD TITLE		
110126	Recover platinum group metals from waste organic solvent		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MAP	Regular	Level 2	3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the recovery of Platinum group metals.

SPECIFIC OUTCOME 2

Prepare to recover Platinum group metals.

SPECIFIC OUTCOME 3

Recover Platinum group metals.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the recovery of Platinum group metals.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 51

Remove and install cutters on a drill head

SAQA US ID	UNIT STANDARD TITLE			
110152	Remove and install cutters on a drill head			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the factors critical to remove and install cutters on a drill head.

SPECIFIC OUTCOME 2

Prepare to remove and install cutters on a drill head.

SPECIFIC OUTCOME 3

Remove and install cutters on a drill head.

SPECIFIC OUTCOME 4

Monitor the removal and installation of cutters on a drill head.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　52

Remove ferromagnetic material from a belt conveyor by means of an over belt magnet

SAQA US ID	UNIT STANDARD TITLE			
110117	Remove ferromagnetic material from a belt conveyor by means of an over belt magnet			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the removal process.

SPECIFIC OUTCOME 2

Prepare to remove material.

SPECIFIC OUTCOME 3

Remove material.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the removal process.

SOUTH
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Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 53

Remove impurities in diamond gemstones through boiling

SAQA US ID	UNIT STANDARD TITLE			
110206	Remove impurities in diamond gemstones through boiling			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the equipment, tools and chemicals used to boil diamond gemstones.

SPECIFIC OUTCOME 2

Prepare and boil diamond gemstones.

SPECIFIC OUTCOME 3

Conduct post- boiling cleaning, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　54

Remove impurities in diamond gemstones through pressure boiling

SAQA US ID	UNIT STANDARD TITLE				
110203	Remove impurities in diamond gemstones through pressure boiling				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular		Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the equipment, tools and chemicals used to boil diamond gemstones under pressure.

SPECIFIC OUTCOME 2

Prepare and pressure boil diamond gemstones.

SPECIFIC OUTCOME 3

Conduct post- pressure-boiling cleaning, checking and security activities.

SOUTH
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AUTHORITY

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

55

Remove impurities in nickel briquettes by mean of a reduction process

SAQA US ID	UNIT STANDARD TITLE		
110164	Remove impurities in nickel briquettes by mean of a reduction process		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2	4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the reduction process.

SPECIFIC OUTCOME 2

Prepare to reduce impurities.

SPECIFIC OUTCOME 3

Reduce impurities.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the reduction process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 56

Remove unwanted chemicals from platinum rich solution by means of a dehydroxilation process (boiling)

SAQA US ID	UNIT STANDARD TITLE			
110188	Remove unwanted chemicals from platinum rich solution by means of a dehydroxilation process (boiling)			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the dehydroxilation process.

SPECIFIC OUTCOME 2

Prepare to dehydroxilate platinum rich solution.

SPECIFIC OUTCOME 3

Dehydroxilate platinum rich solution.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the dehydroxilation process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 57

Repair the exhaust system of an internal combustion engine

SAQA US ID	UNIT STANDARD TITLE			
110142	Repair the exhaust system of an internal combustion engine			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the factors critical to repairing an exhaust system.

SPECIFIC OUTCOME 2

Prepare to repair the exhaust system.

SPECIFIC OUTCOME 3

Repair the exhaust system.

SPECIFIC OUTCOME 4

Test the exhaust system, and prepare for operation and/or production.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 58

Replace cartridge filter elements in a metallurgical plant

SAQA US ID	UNIT STANDARD TITLE			
110166	Replace cartridge filter elements in a metallurgical plant			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the replacement of cartridge filter elements.

SPECIFIC OUTCOME 2
Prepare to replace cartridge filter elements.

SPECIFIC OUTCOME 3
Replace cartridge filter elements.

SPECIFIC OUTCOME 4
Complete the duties pertaining to the replacement of cartridge filter elements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　59

Replace the pins and bushes on mining equipment

SAQA US ID	UNIT STANDARD TITLE			
110176	Replace the pins and bushes on mining equipment			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME **1**

Explain the factors critical to replacing the pins and bushes.

SPECIFIC OUTCOME **2**

Prepare to replace the pins and bushes.

SPECIFIC OUTCOME **3**

Replace the pins and bushes.

SPECIFIC OUTCOME **4**

Test the unit and prepare for operation and/or production.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

60

Sample a vertical converter unit by means of a dip bar

SAQA US ID	UNIT STANDARD TITLE				
110137	Sample a vertical converter unit by means of a dip bar				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the sampling of a molten liquid bath.

SPECIFIC OUTCOME 2

Prepare to sample a molten liquid bath.

SPECIFIC OUTCOME 3

Sample a molten liquid bath.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the process of sampling a molten liquid bath.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 61

Separate liquid from solids by means of a high-rate thickener

SAQA US ID	UNIT STANDARD TITLE			
10581	Separate liquid from solids by means of a high-rate thickener			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the thickening process.

SPECIFIC OUTCOME 2

Prepare to separate liquid from solids.

SPECIFIC OUTCOME 3

Separate liquid from solids.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the thickening process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 62

Separate liquid from solids by means of a pan-filter

SAQA US ID	UNIT STANDARD TITLE		
110184	Separate liquid from solids by means of a pan-filter		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2	6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the separation process.

SPECIFIC OUTCOME 2

Prepare to separate material.

SPECIFIC OUTCOME 3

Separate material.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the separation process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 63

Separate material by means of a centrifugal gravity concentration process

SAQA US ID	UNIT STANDARD TITLE			
110195	Separate material by means of a centrifugal gravity concentration process			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the centrifugal concentration process.

SPECIFIC OUTCOME 2

Prepare to separate material.

SPECIFIC OUTCOME 3

Separate material.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the centrifugal concentration process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

64

Separate solids from a liquid by means of filtration

SAQA US ID	UNIT STANDARD TITLE			
110169	Separate solids from a liquid by means of filtration			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-ENG-0-SGB MM	Regular	Level 2		3

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to filtration.

SPECIFIC OUTCOME 2

Filter the solutions.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

65

Store chemicals in the laboratory.

SAQA US ID	UNIT STANDARD TITLE			
110174	Store chemicals in the laboratory.			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to storage of chemicals.

SPECIFIC OUTCOME 2

Store chemicals in the laboratory.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 66

Strip copper product from stainless steel cathodes in an ISA process

SAQA US ID	UNIT STANDARD TITLE			
110168	Strip copper product from stainless steel cathodes in an ISA process			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the stripping of cathodes.

SPECIFIC OUTCOME 2
Prepare to strip cathodes.

SPECIFIC OUTCOME 3
Strip cathodes.

SPECIFIC OUTCOME 4
Complete the duties pertaining to the stripping of cathodes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 67

Support Drill String operations

SAQA US ID	UNIT STANDARD TITLE			
110196	Support Drill String operations			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 2	8

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the factors critical to the support of drill string operations.

SPECIFIC OUTCOME 2
Prepare for the support of drill string operations.

SPECIFIC OUTCOME 3
Support with drill string operations.

SPECIFIC OUTCOME 4
Monitor the support of drill string operations.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 68

Transport Persons using a Man-Rider Winch

SAQA US ID	UNIT STANDARD TITLE			
110159	Transport Persons using a Man-Rider Winch			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		5

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the factors critical to transport Persons.

SPECIFIC OUTCOME 2
Prepare to transport Persons.

SPECIFIC OUTCOME 3
Transport persons.

SPECIFIC OUTCOME 4
Monitor transporting of persons.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 69

Use a microscope to examine diamond gemstones

SAQA US ID	UNIT STANDARD TITLE			
110199	Use a microscope to examine diamond gemstones			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 2		1

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the microscopes used to examine diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Describe the features of diamond gemstones using a microscope.

SPECIFIC OUTCOME 3

Conduct post-examination reconciliation, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　70

Achieve excavation stability in the presence of geological discontinuities and brows

SAQA US ID	UNIT STANDARD TITLE			
110187	Achieve excavation stability in the presence of geological discontinuities and brows			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate ability to identify geological discontinuities and brows.

SPECIFIC OUTCOME 2

Demonstrate knowledge of achieving stability in the presence of geological discontinuities.

SPECIFIC OUTCOME 3

Prepare for visual and physical examination to identify geological discontinuities.

SPECIFIC OUTCOME 4

Conduct a visual examination to identify geological discontinuities and brows.

SPECIFIC OUTCOME 5

Achieve excavation stability in the presence of geological discontinuities and brows.

SPECIFIC OUTCOME 6

Evaluate, report and record the support of geological discontinuities and brows.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 71

Collect, store and issue explosives from a surface magazine

SAQA US ID	UNIT STANDARD TITLE			
110218	Collect, store and issue explosives from a surface magazine			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		10

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate understanding of explosives handling, transport and storage and relevant legislation.

SPECIFIC OUTCOME 2
Identify explosives and accessories.

SPECIFIC OUTCOME 3
Transport, store and issue explosives and accessories.

SPECIFIC OUTCOME 4
Apply security measures for explosives magazines.

SPECIFIC OUTCOME 5
Adhere to occupational safety and health requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　72

Conduct blasting operations in an underground coal mine

SAQA US ID	UNIT STANDARD TITLE				
110210	Conduct blasting operations in an underground coal mine				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 3		11

Specific Outcomes:

SPECIFIC OUTCOME 1
Prepare to conduct blasting operations.

SPECIFIC OUTCOME 2
Conduct blasting operations.

SPECIFIC OUTCOME 3
Demonstrate teamwork.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 73

Control operations in a blasting section in an underground coal mine

SAQA US ID	UNIT STANDARD TITLE			
110125	Control operations in a blasting section in an underground coal mine			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		15

Specific Outcomes:

SPECIFIC OUTCOME 1
Prepare to control operations in a blasting section.

SPECIFIC OUTCOME 2
Control operations in a blasting section.

SPECIFIC OUTCOME 3
Demonstrate teamwork.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　74

Control slag magnetite content in a vertical converter

SAQA US ID	UNIT STANDARD TITLE		
110120	Control slag magnetite content in a vertical converter		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3	7

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the controlling of magnetite.

SPECIFIC OUTCOME 2

Prepare to control magnetite.

SPECIFIC OUTCOME 3

Control magnetite.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the process of controlling magnetite.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 75

Create a slag bath in a vertical converter unit

SAQA US ID	UNIT STANDARD TITLE		
110141	Create a slag bath in a vertical converter unit		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3	6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the creation of a slag bath.

SPECIFIC OUTCOME 2

Prepare to create the slag bath.

SPECIFIC OUTCOME 3

Create the slag bath.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the process of creating a slag bath.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　　　　　76

Demonstrate a working knowledge of the Diamonds Act and understanding of the Minerals Act in relation to diamonds

SAQA US ID	UNIT STANDARD TITLE				
110212	Demonstrate a working knowledge of the Diamonds Act and understanding of the Minerals Act in relation to diamonds				

SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			

FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS	
MET-FBE-0-SGB MM	Regular	Level 3		8	

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the main features of the Diamonds Act.

SPECIFIC OUTCOME 2

Explain the requirements of the Diamonds Act regarding country of origin of diamonds.

SPECIFIC OUTCOME 3

Explain the requirements of the Diamonds Act regarding processing of diamond gemstones.

SPECIFIC OUTCOME 4

Explain the requirements of the Diamonds Act regarding trade in diamonds.

SPECIFIC OUTCOME 5

Describe the main features of the Minerals Act.

SPECIFIC OUTCOME 6

Explain the requirements of the Minerals Act regarding diamonds.

SOUTH
AFRICAN
QUALIFICATIONS
AUTHORITY

Established in terms of Act SA of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 77

Demonstrate an understanding of the functions of electrical and mechanical components on a winder

SAQA US ID	UNIT STANDARD TITLE				
110172	Demonstrate an understanding of the functions of electrical and mechanical components on a winder				

SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			

FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	9

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the functions of electrical components on a winder.

SPECIFIC OUTCOME 2

Explain the functions of mechanical components on a winder.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 78

Demonstrate understanding processes and obligations to trade in diamonds

SAQA US ID	UNIT STANDARD TITLE		
110214	Demonstrate understanding processes and obligations to trade in diamonds		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3	6

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the diamond exchanges and describe their nature.

SPECIFIC OUTCOME 2

Explain the tendering processes for diamonds and the obligations on the parties involved.

SPECIFIC OUTCOME 3

Explain the processes for collection of diamond gemstones.

SPECIFIC OUTCOME 4

Explain the requirements regarding customs, excise and taxation relating to trade in diamonds.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 79

Determine the concentration of an analyte by means of an ion-selective electrode

SAQA US ID	UNIT STANDARD TITLE				
110213	Determine the concentration of an analyte by means of an ion-selective electrode				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**	
MET-FBE-0-SGB MM	Regular	Level 3		2	

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to ion-selective electrode determinations.

SPECIFIC OUTCOME 2

Determine the concentration of an analyte.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

80

Determine the physical characteristics of coal related to hardness

SAQA US ID	UNIT STANDARD TITLE			
110193	Determine the physical characteristics of coal related to hardness			

SGB NAME	ABET BAND	PROVIDER NAME	
SGB Mining and Minerals	Undefined		

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the physical properties and the rank of coal.

SPECIFIC OUTCOME 2

Determine the Hardgrove index of coal.

SPECIFIC OUTCOME 3

Determine the Abrasiveness index.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 81

Determine the redox potential of a liquid by means of a potentiometer

SAQA US ID	UNIT STANDARD TITLE			
110181	Determine the redox potential of a liquid by means of a potentiometer			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 3		2

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to determining redox potential.

SPECIFIC OUTCOME 2

Determine the redox potential of the liquid.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 82

Explain the requirements to issue a licence to mine, deal and/or process diamonds

SAQA US ID	UNIT STANDARD TITLE		
110220	Explain the requirements to issue a licence to mine, deal and/or process diamonds		

SGB NAME		ABET BAND	PROVIDER NAME
SGB Mining and Minerals		Undefined	

FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Manufacturing, Engineering and Technology	Fabrication and Extraction

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	8

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify and describe the legislation governing the licensing of activities relating to diamonds.

SPECIFIC OUTCOME 2

Explain the requirements and obligations for obtaining the various diamond licenses.

SPECIFIC OUTCOME 3

Explain the powers to control the currency of licenses.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 83

Follow basic health and safety practices pertaining to winding operations

SAQA US ID	UNIT STANDARD TITLE			
110179	Follow basic health and safety practices pertaining to winding operations			

SGB NAME	ABET BAND	PROVIDER NAME	
SGB Mining and Minerals	Undefined		

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	5

Specific Outcomes:

SPECIFIC OUTCOME 1
Describe specified requirements regarding the actions to be taken in the event of operational.

SPECIFIC OUTCOME 2
Describe specified requirements regarding the action to be taken in the event of emergencies.

SPECIFIC OUTCOME 3
Explain the requirements regarding health and safety practices in the workplace.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

84

Grade polished diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
110190	Grade polished diamond gemstones		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3	34

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the systems, equipment and tools used to grade polished diamond gemstones.

SPECIFIC OUTCOME 2

Assess the proportions of polished gemstones.

SPECIFIC OUTCOME 3

Plot characteristics of polished diamond gemstones.

SPECIFIC OUTCOME 4

Differentiate colour, purity, clarity and finish of polished diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post grading activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 85

Improve impurities in diamond gemstones through laser drilling

SAQA US ID	UNIT STANDARD TITLE			
110225	Improve impurities in diamond gemstones through laser drilling			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		6

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the equipment and tools used to drill diamond gemstones by means of laser.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications of drilling them.

SPECIFIC OUTCOME 3

Prepare and drill diamond gemstones by means of laser.

SPECIFIC OUTCOME 4

Conduct post-laser drilling cleaning, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 86

Inscribe polished diamond gemstones by laser

SAQA US ID	UNIT STANDARD TITLE			
110227	Inscribe polished diamond gemstones by laser			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	22

Specific Outcomes:

SPECIFIC OUTCOME 1

Describe the methodology of laser inscription on polished diamond gemstones.

SPECIFIC OUTCOME 2

Prepare to carry out laser inscription on diamond gemstones.

SPECIFIC OUTCOME 3

Perform laser inscription on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-laser-inscription activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 87

Operate a direct current winder

SAQA US ID	UNIT STANDARD TITLE				
110165	Operate a direct current winder				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 3		15

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain specified requirements pertaining to the operation of a direct current winder.

SPECIFIC OUTCOME 2

Prepare to operate a direct current winder.

SPECIFIC OUTCOME 3

Operate a direct current winder.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 88

Operate a friction driven winder

SAQA US ID	UNIT STANDARD TITLE			
110144	Operate a friction driven winder			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	15

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain specified requirements pertaining to the operation of a friction-driven winder.

SPECIFIC OUTCOME 2

Prepare to operate a friction-driven winder.

SPECIFIC OUTCOME 3

Operate a friction-driven winder.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

89

Operate an alternating current winder

SAQA US ID	UNIT STANDARD TITLE			
110154	Operate an alternating current winder			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		15

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain specified requirements pertaining to the operation of an alternating current winder.

SPECIFIC OUTCOME 2

Prepare to operate an alternating current winder.

SPECIFIC OUTCOME 3

Operate an alternating current winder.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　　　　　90

Palletise bagged dry mineral products

SAQA US ID	UNIT STANDARD TITLE		
110146	Palletise bagged dry mineral products		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3	12

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate an understanding of the palletising of bagged dry mineral products.

SPECIFIC OUTCOME 2
Plan and prepare for palletising.

SPECIFIC OUTCOME 3
Palletise bagged dry mineral product.

SPECIFIC OUTCOME 4
Adhere to safety and health requirements.

SOUTH
AFRICAN
QUALIFICATIONS
AUTHORITY

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 91

Provide customer service in a sales and distribution environment

SAQA US ID	UNIT STANDARD TITLE			
110234	Provide customer service in a sales and distribution environment			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 3		7

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate understanding relating to customer service.

SPECIFIC OUTCOME 2

Identify customer requirements.

SPECIFIC OUTCOME 3

Respond to customer requirements.

SPECIFIC OUTCOME 4

Improve customer service.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　92

Quantify Sulphur and /or carbon by means of a combustion furnace and titration method

SAQA US ID	UNIT STANDARD TITLE			
110119	Quantify Sulphur and /or carbon by means of a combustion furnace and titration method			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
MET-FBE-0-SGB MM	Regular	Level 3		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the determination.

SPECIFIC OUTCOME 2

Quantify sulphur and/or carbon by means of a combustion furnace.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 93

Quantify the analyte concentration in an evolved gas by means of a gas auto analyser

SAQA US ID	UNIT STANDARD TITLE			
110116	Quantify the analyte concentration in an evolved gas by means of a gas auto analyser			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-MNA-0-SGB MM	Regular	Level 3		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to gas auto analyser determinations.

SPECIFIC OUTCOME 2

Quantify the analyte concentration in an evolved gas by means of a gas auto analyser.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 94

Receive orders and despatch products

SAQA US ID	UNIT STANDARD TITLE				
110143	Receive orders and despatch products				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-FBE-0-SGB MAP	Regular		Level 3		8

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate an understanding of receiving orders and despatching products.

SPECIFIC OUTCOME 2

Plan and prepare for receiving orders and despatching products.

SPECIFIC OUTCOME 3

Receive orders and despatch products.

SPECIFIC OUTCOME 4

Adhere to safety and health requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 95

Reduce bulk and particle size of a dry solid sample

SAQA US ID	UNIT STANDARD TITLE			
110186	Reduce bulk and particle size of a dry solid sample			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		10

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to solid sample reduction techniques.

SPECIFIC OUTCOME 2

Reduce the particle size of a sample by crushing.

SPECIFIC OUTCOME 3

Reduce the particle size of a sample by grinding.

SPECIFIC OUTCOME 4

Reduce sample bulk to obtain a representative sub-sample.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

96

Reduce metal bearing material in a pressure vessel

SAQA US ID	UNIT STANDARD TITLE			
110124	Reduce metal bearing material in a pressure vessel			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to reducing metal bearing material in a pressure vessel.

SPECIFIC OUTCOME 2

Prepare to reduce material.

SPECIFIC OUTCOME 3

Reduce material.

SPECIFIC OUTCOME 4

Complete the duties pertaining to the reduction process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

97

Sample a water source for analytical purposes

SAQA US ID	UNIT STANDARD TITLE			
110182	Sample a water source for analytical purposes			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		6

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to water sampling.

SPECIFIC OUTCOME 2

Sample a water source for analytical purposes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

98

Separate a solute by means of a liquid:liquid solvent extraction technique

SAQA US ID	UNIT STANDARD TITLE		
110197	Separate a solute by means of a liquid:liquid solvent extraction technique		

SGB NAME		ABET BAND	PROVIDER NAME
SGB Mining and Minerals		Undefined	

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology		Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 3	5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to solvent extraction techniques.

SPECIFIC OUTCOME 2

Separate a solute by means of the solvent extraction technique.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 99

Separate an analyte from a sample by means of distillation

SAQA US ID	UNIT STANDARD TITLE			
110167	Separate an analyte from a sample by means of distillation			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 3		5

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to the distillation process.

SPECIFIC OUTCOME 2

Prepare for the distillation process.

SPECIFIC OUTCOME 3

Perform the distillation.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 100

Shape diamond gemstones by hand - fancy cut

SAQA US ID	UNIT STANDARD TITLE				
110223	Shape diamond gemstones by hand - fancy cut				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**	
MET-FBE-0-SGB MM	Regular	Level 3		21	

Specific Outcomes:

SPECIFIC OUTCOME 1

Explain the difference in the application of the equipment and tools used to shape diamonds.

SPECIFIC OUTCOME 2

Set and clamp diamond gemstones for shaping.

SPECIFIC OUTCOME 3

Carry out fancy cut shaping on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-shaping cleaning, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 101

Treat misfires and sockets in an underground coal mine

SAQA US ID	UNIT STANDARD TITLE				
110130	Treat misfires and sockets in an underground coal mine				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**	
MET-FBE-0-SGB MM	Regular	Level 3		6	

Specific Outcomes:

***SPECIFIC OUTCOME* 1**

Prepare to treat a misfire and socket.

***SPECIFIC OUTCOME* 2**

Treat a misfire and socket in a coalface.

***SPECIFIC OUTCOME* 3**

Treat a misfire and socket in a stone face.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　102

Buy and sell polished diamond gemstones

SAQA US ID	UNIT STANDARD TITLE			
110183	Buy and sell polished diamond gemstones			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 4		10

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of the trading practices in polished diamond gemstones.

SPECIFIC OUTCOME 2

Identify the costs associated with improving diamond gemstones.

SPECIFIC OUTCOME 3

Estimate the added value of diamonds after improvement.

SPECIFIC OUTCOME 4

Identify the markets in which the best price of polished diamond gemstones can be obtained.

SPECIFIC OUTCOME 5

Buy polished diamond gemstones.

SPECIFIC OUTCOME 6

Sell polished diamond gemstones.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 103

Control a gravity concentration process in a metallurgical plant

SAQA US ID	UNIT STANDARD TITLE			
110161	Control a gravity concentration process in a metallurgical plant			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 4		17

Specific Outcomes:

SPECIFIC OUTCOME **1**

Demonstrate knowledge relating to the controlling of a gravity concentration process.

SPECIFIC OUTCOME **2**

Demonstrate knowledge relating to the process of the gravity concentration operation.

SPECIFIC OUTCOME **3**

Control a gravity concentration process.

SPECIFIC OUTCOME **4**

Complete the duties pertaining to the controlling of a gravity concentration process.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

104

Determine the concentration of a substance by Ion Chromatography [IC]

SAQA US ID	UNIT STANDARD TITLE				
110201	Determine the concentration of a substance by Ion Chromatography [IC]				
SGB NAME			**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals			Undefined		
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology			Fabrication and Extraction		
UNIT STANDARD CODE		**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM		Regular	Level 4		13

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge relating to Ion Chromatography.

SPECIFIC OUTCOME 2

Perform an analysis by means of an ion chromatograph.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 105

Prepare and verify standards for quantitative analytical measurements

SAQA US ID	UNIT STANDARD TITLE				
110204	Prepare and verify standards for quantitative analytical measurements				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Mining and Minerals		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
Manufacturing, Engineering and Technology		Fabrication and Extraction			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**	
MET-FBE-0-SGB MM	Regular	Level 4		11	

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge relating to the preparation and verification of standards.

SPECIFIC OUTCOME 2
Prepare the standards.

SPECIFIC OUTCOME 3
Verify the standards.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 106

Repair polished diamond gemstones

SAQA US ID	UNIT STANDARD TITLE			
110224	Repair polished diamond gemstones			
SGB NAME			**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals			Undefined	
FIELD DESCRIPTION			**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology			Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular		Level 4	4

Specific Outcomes:

SPECIFIC OUTCOME 1

Assess the dimensions and the make of diamond gemstones.

SPECIFIC OUTCOME 2

Identify and agree the scope of what can be changed.

SPECIFIC OUTCOME 3

Carry out the repair according to instructions.

SPECIFIC OUTCOME 4

Conduct post repair activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 107

Value polished diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
110226	Value polished diamond gemstones		
SGB NAME		**ABET BAND**	**PROVIDER NAME**
SGB Mining and Minerals		Undefined	
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**	
Manufacturing, Engineering and Technology		Fabrication and Extraction	
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**	**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 4	6

Specific Outcomes:

SPECIFIC OUTCOME 1

Identify the systems, equipment and tools used to value polished diamond gemstones.

SPECIFIC OUTCOME 2

Identify the qualities of polished diamond gemstones.

SPECIFIC OUTCOME 3

Recommend ways to improve the qualities of diamond gemstones.

SPECIFIC OUTCOME 4

Price polished diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post valuing activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 108

Buying and selling rough diamond gemstones

SAQA US ID	UNIT STANDARD TITLE			
110228	Buying and selling rough diamond gemstones			

SGB NAME	ABET BAND	PROVIDER NAME		
SGB Mining and Minerals	Undefined			

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 5	36

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate knowledge of the trading practices in rough diamond gemstones.

SPECIFIC OUTCOME 2

Identify the costs associated with processing rough diamond gemstones.

SPECIFIC OUTCOME 3

Estimate the added value of diamonds after processing.

SPECIFIC OUTCOME 4

Identify the markets in which the best price of polished diamond gemstones can be obtained.

SPECIFIC OUTCOME 5

Buy rough diamond gemstones.

SPECIFIC OUTCOME 6

Sell rough diamond gemstones.

SOUTH
AFRICAN
QUALIFICATIONS
AUTHORITY

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

109

Design and mark large sized diamond gemstones for parting

SAQA US ID	UNIT STANDARD TITLE			
110221	Design and mark large sized diamond gemstones for parting			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Mining and Minerals		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
Manufacturing, Engineering and Technology		Fabrication and Extraction		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
MET-FBE-0-SGB MM	Regular	Level 5		36

Specific Outcomes:

SPECIFIC OUTCOME 1
Demonstrate knowledge of the structure of diamond gemstones.

SPECIFIC OUTCOME 2
Examine large sized rough diamond gemstones to determine their characteristics for parting.

SPECIFIC OUTCOME 3
Predict the optimum shape of polished diamonds from large sized rough diamond gemstones.

SPECIFIC OUTCOME 4
Conduct post-marking reconciliation, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　　　　　　110

Part diamond gemstones by means of cleaving

SAQA US ID	UNIT STANDARD TITLE			
110222	Part diamond gemstones by means of cleaving			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Mining and Minerals		Undefined		

FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Manufacturing, Engineering and Technology	Fabrication and Extraction	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 5	6

Specific Outcomes:

SPECIFIC OUTCOME 1
Identify the equipment and tools used to part diamond gemstones by means of cleaving.

SPECIFIC OUTCOME 2
Demonstrate knowledge of the structure of diamond gemstones and the implications for cleaving them.

SPECIFIC OUTCOME 3
Prepare diamond gemstones for cleaving.

SPECIFIC OUTCOME 4
Part diamond gemstones by means of cleaving.

SPECIFIC OUTCOME 5
Conduct post-cleaving cleaning, checking and security activities.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 111

Make a model and determine the optimal processing of a diamond gemstone

SAQA US ID	UNIT STANDARD TITLE			
110235	Make a model and determine the optimal processing of a diamond gemstone			

SGB NAME	ABET BAND	PROVIDER NAME
SGB Mining and Minerals	Undefined	

FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Manufacturing, Engineering and Technology	Fabrication and Extraction

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
MET-FBE-0-SGB MM	Regular	Level 6	13

Specific Outcomes:

SPECIFIC OUTCOME 1
Explain the circumstances when it is appropriate to use model making.

SPECIFIC OUTCOME 2
Describe the materials, equipment and tools used in making models of diamond gemstones.

SPECIFIC OUTCOME 3
Construct a mould and make models.

SPECIFIC OUTCOME 4
Cut and/or polish the model to determine the optimal method of processing the diamond gemstone.

SPECIFIC OUTCOME 5
Conduct post-model-making activities.

No. 1282   **12 September 2003**

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Manufacturing and Assembly

Registered by NSB 06, Manufacturing, Engineering and Technology, publishes the following unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the unit standard. The unit standard can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the unit standards should reach SAQA at the address *below and no later than 13 October 2003.* All correspondence should be marked **Standards Setting – SGB for Manufacturing and Assembly** and addressed to

The Director: Standards Setting and Development SAQA *Attention: Mr. D Mphuthing* Postnet Suite 248 Private Bag X06 Waterkloof 0145 or faxed to 012 – 431-5144 e-mail: mmphuthing@saqa.co.za

JOE SAMUELS
DIRECCTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

1

Fill small portable liquid petroleum gas (LPG) cylinders

SAQA US ID	UNIT STANDARD TITLE				
110335	Fill small portable liquid petroleum gas (LPG) cylinders				
SGB NAME		ABET BAND	PROVIDER NAME		
SGB Manufacturing and Assembly Processes		Undefined			
FIELD DESCRIPTION		SUBFIELD DESCRIPTION			
Manufacturing, Engineering and Technology		Manufacturing and Assembly			
UNIT STANDARD CODE	UNIT STANDARD TYPE		NQF LEVEL		CREDITS
MET-MNA-0-SGB MAP	Regular		Level 2		4

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate understanding of and compliance with safe practice.

SPECIFIC OUTCOME 2

Check cylinders prior to filling.

SPECIFIC OUTCOME 3

Conduct pre-filling activities.

SPECIFIC OUTCOME 4

Fill LPG Cylinder.

SPECIFIC OUTCOME 5

Carryout post filling activities.

CHECKING INFORMATION FROM NLRD FOR GOV GAZETTE BY NSB CO-ORDINATOR

Date	NSB	Description	Signature of NSB Co-ordinator	Date of Sign-off
05-Sep-03	6	Liquid Petroleum Gas		5-9-03

No. 1283   **12 September 2003**

Established in terms of Act 58 of 1995

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Journalism

Registered by NSB 04, Communication Studies and Language, publishes the following unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the unit standards. The unit standards can be accessed via the SAQA web-site at **www.saqa.org.za**. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the unit standards should reach SAQA at the address *below and no later than 13 October 2003.* All correspondence should be marked **Standards Setting – SGB for Journalism** and addressed to

> The Director: Standards Setting and Development
> SAQA
> *Attention: Mr. D Mphuthing*
> Postnet Suite 248
> Private Bag X06
> Waterkloof
> 0145
> or faxed to 012 – 431-5144
> e-mail: mmphuting@saqa.co.za

JOE SAMUELS
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

## UNIT STANDARD:					1

Sub-edit non-specialist text

SAQA US ID	UNIT STANDARD TITLE			
110358	Sub-edit non-specialist text			

SGB NAME		ABET BAND	PROVIDER NAME	
SGB Journalism		Undefined		

FIELD DESCRIPTION		SUBFIELD DESCRIPTION	

UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
COM-MS-0-SGB JOURN	Regular	Level 5	10

Specific Outcomes:

SPECIFIC OUTCOME 1
Prepare for sub-editing of non-specialist text.

SPECIFIC OUTCOME 2
Sub-edit non-specialist text.

SPECIFIC OUTCOME 3
Write headlines and other layout text elements used by the publication.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 2

Perform journalism-related tasks and generate journalistic material in an editorial environment

SAQA US ID	UNIT STANDARD TITLE			
110359	Perform journalism-related tasks and generate journalistic material in an editorial environment			
SGB NAME		ABET BAND	PROVIDER NAME	
SGB Journalism		Undefined		
FIELD DESCRIPTION		SUBFIELD DESCRIPTION		
UNIT STANDARD CODE	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
COM-MS-0-SGB JOURN	Regular	Level 5		20

Specific Outcomes:

SPECIFIC OUTCOME 1

Demonstrate understanding of production processes and performance requirements in an editorial.

SPECIFIC OUTCOME 2

Perform journalism-related tasks.

SPECIFIC OUTCOME 3

Generate journalistic material.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 3

Report for a variety of journalistic purposes

SAQA US ID	UNIT STANDARD TITLE			
110357	Report for a variety of journalistic purposes			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Journalism		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
COM-MS-0-SGB JOURN	Regular	Level 5		12

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare for reporting.

SPECIFIC OUTCOME 2

Report on an assigned story.

SPECIFIC OUTCOME 3

Review and select information gathered.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 4

Interview for a variety of journalistic purposes

SAQA US ID	UNIT STANDARD TITLE				
110360	Interview for a variety of journalistic purposes				
SGB NAME		**ABET BAND**	**PROVIDER NAME**		
SGB Journalism		Undefined			
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**			
UNIT STANDARD CODE	**UNIT STANDARD TYPE**		**NQF LEVEL**		**CREDITS**
COM-MS-0-SGB JOURN	Regular		Level 5		8

Specific Outcomes:

SPECIFIC OUTCOME 1
Prepare to interview.

SPECIFIC OUTCOME 2
Conduct an interview.

SPECIFIC OUTCOME 3
Record and review interview.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 5

Write stories for a variety of journalistic purpose in print

SAQA US ID	UNIT STANDARD TITLE			
110361	Write stories for a variety of journalistic purpose in print			
SGB NAME		**ABET BAND**	**PROVIDER NAME**	
SGB Journalism		Undefined		
FIELD DESCRIPTION		**SUBFIELD DESCRIPTION**		
UNIT STANDARD CODE	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
COM-MS-0-SGB JOURN	Regular	Level 6		12

Specific Outcomes:

SPECIFIC OUTCOME 1

Prepare to write an assigned story.

SPECIFIC OUTCOME 2

Write an assigned story.

SPECIFIC OUTCOME 3

Review the written story.

Wetlands are wonderlands!
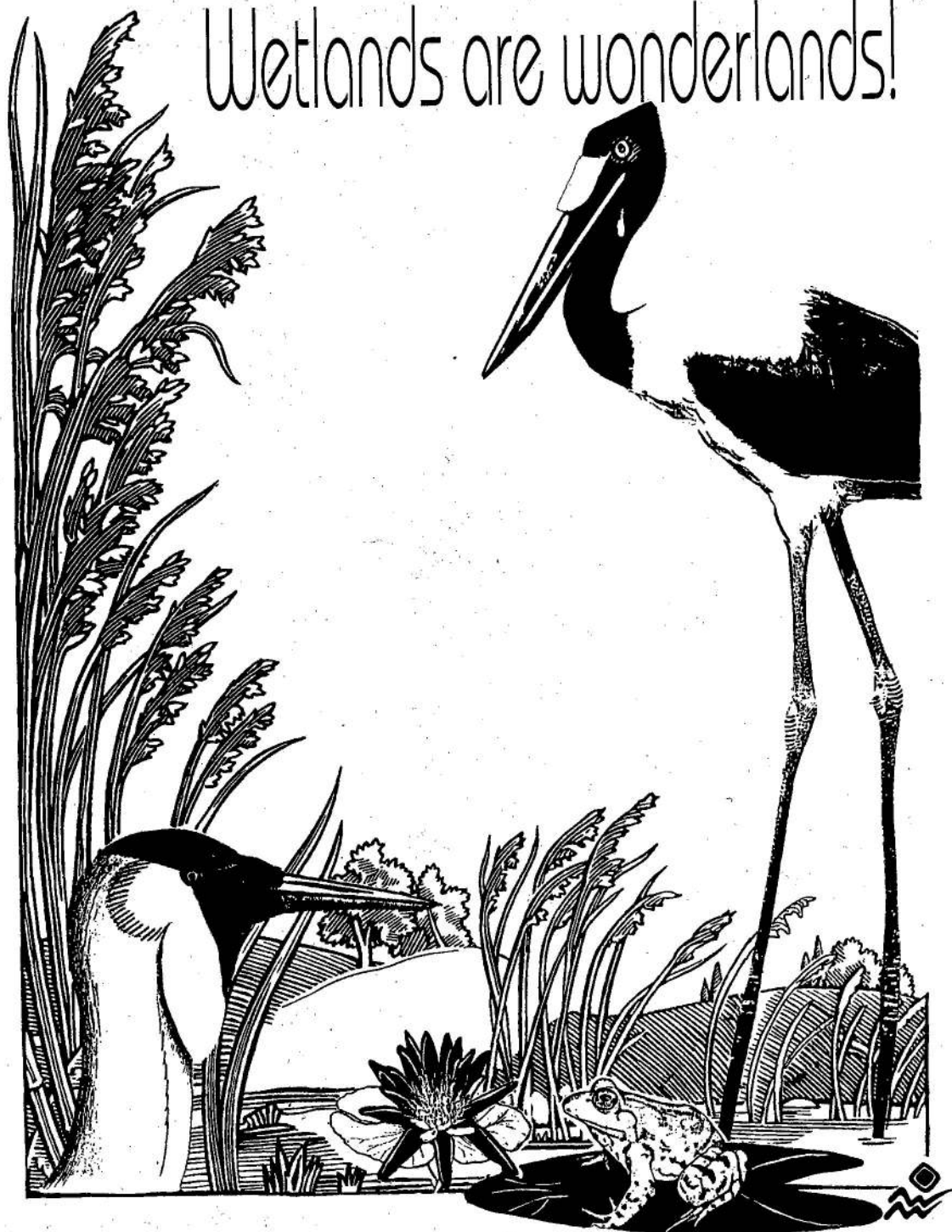
Department of Environmental Affairs and Tourism

THE WEATHER BUREAU HELPS FARMERS TO PLAN THEIR CROP