

No. 1160

14 December 2007

**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 Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at www.saga.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and **no later than 28 January 2008**. All correspondence should be marked **Standards Setting – Mining and Minerals** and addressed to

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SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:
National Certificate: Diamond Processing

SAQA QUAL ID		QUALIFICATION TITLE	
59851		National Certificate: Diamond Processing	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	6 - Manufacturing, Engineering and Technology	Fabrication and Extraction	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	150	Level 3	Regular-Unit Stds Based

This qualification replaces:

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
21846	National Certificate: Diamond Processing Operator	Level 2	129	Will occur as soon as 59851 is registered

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

This qualification will equip qualifying learners with the necessary knowledge, understanding and competence to process diamond gemstones to internationally recognised standards. It is aimed at people who work or intend to work within the diamond processing industry and who seek recognition for skills in processing diamond gemstones.

Recipients of this qualification know about and are able to process rough diamond gemstones into cut and polished diamond gemstones for sale into local and international markets. The ability of the industry to develop its potential in the beneficiation of raw materials is dependent upon the development of processing skills to provide the platform for expansion of the industry and to have a base of skilled workers to feed the more skilled occupations of Crossworkers, Brillanteers, Bruters, Parters and Fancy Stone Makers.

The qualification is designed to be flexible and accessible so that people are able to consistently demonstrate the competencies required to work safely and effectively in processing diamond gemstones. The understanding of the role of the diamond processing sector in terms of the jewellery manufacturing and diamond distribution system will be understood as well as the importance of their role in the distribution chain.

The candidate can select the stream they wish to specialize in:

- A: Preparation.
- B: Cutting.
- C: Bottom Processing.
- D: Top Processing.
- E: Automatic Processing.

Qualified learners will, subject to the elected stream, be able to:

- Communicate and solve problems by applying mathematical practical applications in a variety of ways.
- Adhere to occupational safety, health and environmental requirements.
- Understand the structure and history of the industry.
- Describe the shapes and characteristics of diamond gemstones.
- Prepare diamond gemstones for processing.
- Cut diamond gemstones for polishing.
- Polish bottoms on diamond gemstones.
- Polish tops on diamond gemstones.
- Polish diamond gemstones using semi automatic equipment.

This qualification introduces an understanding of the processing of rough diamonds into cut and polished diamond gemstones which falls in the sub-field Fabrication and Extraction. It will enable learners to be informed workers in the Industry. It provides a balanced learning experience that allows flexible access to life long learning in further or higher education and productive employment in the diamond processing industry.

Rationale:

The processing of diamonds is not a mechanical process, but one which requires understanding of the nature and structure of the diamond crystal, how the processing reveals the qualities of the gemstone and how impurities can affect the ultimate value of the gemstone. The need for this qualification was identified by a number of means:

- It has been identified as one of the priority areas within the Mining and Minerals Sector by means of the Sector Skills Plan.
- It has been identified by research commissioned by the Mining Qualifications Authority (MQA) and the German Technical Co-operation (GTZ) which research was published in May 2003 in a work entitled "A Skills Analysis of the Jewellery Manufacturing and Gemstone Processing Industries in South Africa".
- Employers within the diamond processing industry have indicated the need to give formal recognition to the learning given to the majority of employees in the industry (most of whom are previously disadvantaged).
- The changing technology within the diamond processing industry requires that processors are equipped with recognised skills that are able to be applied under a variety of circumstances according to the dynamic change in supply of rough stones for processing.
- The quality standards to enable the South African industry to compete favourably with overseas processing industries demand that stringent quality and operating standards are applied to enable the diamond processing sector to remain viable in South Africa and support the expansion of the wider jewellery manufacturing industry.

This qualification is a revision of the previous National Certificate Diamond Processing Operator (NLRD 21846) registered with SAQA. Changes are incorporated as a result of practical implementation within the sector and reflect the drive towards continual improvement.

The National Certificate: Diamond Processing is designed to meet the needs of learners in or entering into the diamond processing industry as well as the needs of employers wishing to promote recognized levels of competence in the workforce. Previously workers were trained and developed using informal methods. The associated status of a nationally recognised qualification will serve as a motivation for high-level learners to enter the career of diamond processing. Current process operators, particularly, will benefit from the opportunities of assessment and subsequent recognition presented by RPL (Recognition of Prior Learning).

It is a key qualification that allows for mobility and portability within the diamond processing sector. It is a step towards obtaining a range of qualifications in diamond processing for learners who:

- Were previously disadvantaged.
- Have worked in the diamond processing industry for many years, but have no formal qualification in their area of work.
- Wish to extend their knowledge and understanding of the diamond processing industry.
- Have recently taken up a position in the diamond processing industry.

This qualification will also provide entrants to the industry with a structured framework to develop a measured career path within the diamond processing industry. The majority of the candidates for this qualification are likely to be working in the diamond processing industry already. The qualification will give them the opportunity to have their skills recognised as the previous practice only accorded recognition at journeyman level. This qualification would provide a launching pad for development into diamond polishing qualifications at higher levels.

There is a critical need in the industry to convert experienced personnel into qualified practitioners to raise the credibility of the industry and to enhance South Africa's reputation as a centre for diamond processing. This qualification would provide experienced, but unrecognised people in the industry an opportunity to establish their skills for further development.

The intention is:

- To promote the development of knowledge and competencies that are required in the diamond processing industry.
- To develop the potential of employees in the diamond processing industry.
- To provide opportunities for life long learning for learners who work in the diamond processing industry where no general formal qualification currently exists.

The National Certificate: Diamond Processing will produce knowledgeable workers who are able to contribute to improved productivity within the diamond processing industry. It should provide the means for current workers to receive recognition of prior learning. The qualification is structured in a way that exposes learners to the different aspects of diamond processing. It is anticipated that this qualification will promote the notion of lifelong learning by encouraging entrants to the industry and existing participants to seek recognition for and develop their skills.

This is the first qualification in a learning pathway for Diamond Processing. Typical learning pathways for learners who acquire this qualification could be to enhance processing skills towards the NQF Level 4 qualification and the trades of Crossworker, Brillianteer, Bruter, Parting and Fancy Stone Maker. This qualification will also provide a foundation for learners wishing to advance to the related qualifications of diamond design and evaluation, examination or support services. For some learners progression into Supervisory Management and Leadership competencies will create the opportunity to assume managerial responsibilities in the workplace.

The qualification is designed to be flexible and accessible so that people are able to demonstrate the competencies in diamond processing across the jewellery manufacturing sector of the mining and minerals sector.

Qualifying learners will be appointed as Processors according to the elected stream, controlling the complete diamond processing activity by means of technologically advanced processes to create cut and polished diamond gemstones; for sale into local or international markets.

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED IN PLACE

It is assumed that candidates embarking on learning towards this qualification are already competent in:

- Communication and mathematical literacy at NQF Level 2.

Recognition of Prior Learning:

This qualification can be obtained by completing all the required unit standards in a structured learning programme, or through recognition of prior learning (RPL). The criteria for RPL would need to be in line with the MQA's ETQA requirements.

Evidence can be presented in a variety of forms, including international or previous local qualifications, reports, testimonials mentioning functions performed, work records, portfolios, videos of practice and performance records.

All such evidence would be judged according to the general principles of assessment.

Access to the Qualification:

Access is open; however it is preferable that learners have completed the GETC: Mining and Mineral Processes. (Diamond processing stream).

QUALIFICATION RULES

Fundamentals:

- All 36 credits are compulsory and must be achieved.

Core:

- All 32 credits are compulsory.

Electives:

- A minimum of 82 credits elective credits as specified below must be achieved.

There are five specialisations possible:

A: Preparation.

B: Cutting.

C: Bottom Polishing.

D: Top Polishing.

E: Automatic Polishing.

For Specialization area A: Preparation, the following unit standards (72 credits) are to be achieved:

Title; Level; Credits:

- Facet the girdle by machine; Level 3; 20 credits.
- Open windows on diamond gemstones; Level 3; 10 credits.
- Set up a bench and level a scaiffe; Level 2; 2 credits.
- Prepare a scaiffe for polishing diamond gemstones; Level 2; 2 credits.
- Level tangs for polishing diamond gemstones; Level 2; 2 credits.
- Prepare sawn diamond gemstones for processing; Level 3; 18 credits.

- Prepare makeable diamond gemstones for processing; Level 3; 18 credits.

Total = 72 credits.

A further 10 credits are to be chosen from the rest of the electives to make up a minimum of 151 credits for the qualification.

For Specialization area B: Cutting, the following unit standards (63 credits) are to be achieved:

Title; Level; Credits:

- Rough cut using double spindle machines; Level 3; 20 credits.
- Rough cut using diamond impregnated wheels; Level 3; 20 credits.
- Rondist using semi automatic equipment; Level 3; 18 credits.
- Fix diamond gemstones for cutting; Level 2; 5 credits.

Total = 63 credits.

A further 19 credits are to be chosen from the rest of the electives to make up a minimum of 151 credits for the qualification.

For Specialization area C: Bottom Polishing, the following unit standards (74 credits) are to be achieved:

Title; Level; Credits:

- Set up a bench and level a scaiffe; Level 2; 2 credits.
- Prepare a scaiffe for polishing diamond gemstones; Level 2; 2 credits.
- Level tangs for polishing diamond gemstones; Level 2; 2 credits.
- Set diamond gemstones using the press pot system; Level 2; 3 credits.
- Prepare and polish tables on diamond gemstones; Level 3; 10 credits.
- Bottom block diamond gemstones; Level 3; 15 credits.
- Bottom lap diamond gemstones; Level 3; 20 credits.
- Polish bottom halves on diamond gemstones; Level 3; 20 credits.

Total = 74.

A further 8 credits are to be chosen from the rest of the electives to make up a minimum of 151 credits for the qualification.

For Specialization area D: Top Polishing, the following unit standards (74 credits) are to be achieved:

Title; Level; Credits:

- Set up a bench and level a scaiffe; Level 2; 2 credits.
- Prepare a scaiffe for polishing diamond gemstones; Level 2; 2 credits.
- Level tangs for polishing diamond gemstones; Level 2; 2 credits.
- Set diamond gemstones using the press pot system; Level 2; 3 credits.
- Top block diamond gemstones; Level 3; 10 credits.
- Top lap diamond gemstones; Level 3; 20 credits.
- Polish top halves on diamond gemstones; Level 3; 18 credits.
- Polish stars on diamond gemstones; Level 3; 17 credits.

Total = 74 credits.

A further 8 credits are to be chosen from the rest of the electives to make up a minimum of 151 credits for the qualification.

For Specialization area E: Automatic Polishing, the following unit standards (65 credits) are to be achieved:

Title; Level; Credits:

- Set up a bench and level a scaiffe; Level 2; 2 credits.
- Prepare a scaiffe for polishing diamond gemstones; Level 2; 2 credits.
- Level tangs for polishing diamond gemstones; Level 2; 2 credits.
- Screen diamond gemstones; Level 2; 5 credits.
- Block bottoms semi automatically; Level 3; 12 credits.
- Block tops semi automatically; Level 3; 15 credits.
- Polish bottoms semi automatically; Level 3; 15 credits.
- Polish tops semi automatically; Level 3; 12 credits.

Total = 65 credits.

A further 17 credits are to be chosen from the rest of the electives to make up a minimum of 151 credits for the qualification.

EXIT LEVEL OUTCOMES

1. Communicate and solve problems by applying mathematical practical applications in a variety of ways.

2. Adhere to occupational health, safety and environmental standards in the workplace.

3. Describe the shapes and characteristics of diamond gemstones.

4. Prepare diamond gemstones for processing.

OR

5. Cut diamond gemstones for processing.

OR

6. Polish bottoms on diamond gemstones.

OR

7. Polish tops on diamond gemstones.

OR

8. Polish diamond gemstones using automatic equipment.

Range: Automatic equipment refers to:

- Multi-headed blocking machines.
- Multi-headed polishing machines.

Consistency of Exit Level Outcomes with Critical Cross-field Outcomes:

The following CCFO's have been addressed in this qualification as per the unit standards outlined in the Annexure.

Critical Cross-Field Outcomes:

- Identifying and solving problems in which responses display that responsible decisions using critical thinking have been made:
 - Evident in all Exit Level Outcomes.
- Working effectively with others as a member of a team, group, organization and community:
 - Evident in all Exit Level Outcomes.
- Organising and managing oneself and one's activities responsibly and effectively:
 - Evident in Exit Level Outcome's 1, 4, 5, 6, 7, 8.
- Collecting, analyzing, organizing and critically evaluating information:
 - Evident in all Exit Level Outcomes.
- Communicating effectively using visual, mathematical and/or language skills:
 - Evident in all Exit Level Outcomes.
- Using science and technology effectively and critically, showing responsibility toward the environment and health of others:
 - Evident in all Exit Level Outcomes.
- Demonstrating an understanding of the world as a set of related systems by recognizing that problem contexts do not exist in isolation:
 - Evident in all Exit Level Outcomes.
- Contributing to the full personal development of each learner and the social and economic development of society at large:
 - Evident in all Exit Level Outcomes.

ASSOCIATED ASSESSMENT CRITERIA

Associated Assessment Criteria for Exit Level Outcomes 1:

- Oral communication is maintained and adapted as required to promote effective interaction in a work context.
- Written communication is conducted at an appropriate level for designated target audiences.
- Mathematical principles and techniques are applied while performing the tasks in the operational context.
- Problems and solutions are recorded and monitored for reoccurrence.

Associated Assessment Criteria for Exit Level Outcomes 2:

- Occupational Health, Safety and Environmental policies, procedures and requirements are adhered to at all times as per workplace requirements.
- Safe, healthy and environmentally related activities are conducted in a diamond processing environment according to the Occupational Health, Safety and Environmental requirements.

Associated Assessment Criteria for Exit Level Outcomes 3:

- The properties of diamonds are explained and the implications on ultimate value of the processed diamond is related to international standards.

- The different shapes of diamonds are described and are related to their applications after processing.
- The basis of valuation of diamond gemstones is understood; and the impact of non compliance with processing procedures is explained in terms of the potential value.
- The different uses of diamonds are explained in the context of purity, proportion, finish, size and shape.

Associated Assessment Criteria for Exit Level Outcomes 4:

- Tools and equipment are identified and their applications explained in terms of their application for processing diamonds.
- The activities in preparing diamond gemstones for processing are explained and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.
- Diamond gemstones are set and prepared for processing in order to meet workplace processing standards.
- Sawn stones are prepared according to acceptable international processing standards.
- Makeable stones are prepared according to acceptable international polishing standards.

Associated Assessment Criteria for Exit Level Outcomes 5:

- The tools and equipment are identified and their application explained in terms of their application for processing diamonds.
- The activities in cutting diamond gemstones for processing are explained and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.
- Diamond gemstones are set and prepared for cutting in order to meet workplace processing standards.
- Cutting is carried out according to acceptable international processing standards.
- Girdle faceting is carried out according to acceptable international processing standards.
- Rondisting is carried out according to acceptable international processing standards.

Associated Assessment Criteria for Exit Level Outcomes 6:

- The tools and equipment are identified and their application explained in terms of their application for processing diamonds.
- The activities in polishing bottoms on diamond gemstones are explained and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.
- Bottoms are polished on diamond gemstones according to acceptable international processing standards.

Associated Assessment Criteria for Exit Level Outcomes 7:

- The tools and equipment are identified and their application explained in terms of their application for processing diamonds.
- The activities in polishing tops on diamond gemstones are explained and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.
- Tops are polished on diamond gemstones according to acceptable international processing standards.

Associated Assessment Criteria for Exit Level Outcomes 8:

- The tools and equipment are identified and their application explained in terms of their application for processing diamonds.
- The activities in blocking and polishing tops and bottoms using automatic machinery is explained and the importance to the process demonstrated in terms of the properties and value of the finished gemstone.

- Blocking using automatic machinery is carried out to acceptable international processing standards.
- Polishing using automatic machinery is carried out to acceptable international processing standards.

Integrated Assessment:

Integrated assessment at the level of the qualification provides an opportunity for learners to show they are able to integrate concepts, actions and ideas achieved across a range of unit standards and contexts.

Integrated assessment must evaluate the quality of observable performance as well as the thinking behind the performance, and must be based on a summative assessment guide. The guide will spell out how the assessor will assess different aspects of the performance and will include:

- Observing the learner at work (both in the primary activity as well as other interactions).
- Asking questions and initiating short discussions to test understanding.
- Looking at records and reports in the portfolio and reviewing previous assessments.

In some cases interference will be necessary to determine competence depending on the nature and context within which performance takes place.

It is necessary to ensure that the fundamental part of the qualification is also targeted to ensure that while the competence may have been achieved in a particular context, learners are able to apply it in a range of other contexts and for future learning. The assessment should also ensure that all the critical cross-field outcomes have been achieved.

The learner may choose in which language s/he wants to be assessed. This should be established as part of a process of preparing the learner for assessment and familiarising the learner with the approach being taken.

While this is primarily a workplace-based qualification, evidence from other areas of endeavour may be introduced if pertinent to any of the exit-level outcomes. The assessment process should cover both the explicit tasks required for the qualification as well as the understanding of the concepts and principles that underpin the activities associated with processing diamonds.

INTERNATIONAL COMPARABILITY

The search for internationally comparable qualifications indicates that the qualifications developed in South Africa in respect to diamond processing are the only standards of their kind. The diamond industry is a relatively small industry world-wide with a defined channel of trade which provides a close community of people knowledgeable about the industry.

In seeking to establish whether qualifications in diamond processing exist elsewhere the following channels have been pursued:

- Contact with established payers in the South African industry, including leading diamond cutting operations, internationally linked gemstone valuers, internationally linked training institutions, and people with many years established connections to De Beers, the leading role-player in the distribution of diamond gemstones in the world.
- There are established diamond trading centres in the world and the diamond clubs and employer associations from the following countries were contacted with a view to establish comparable qualifications:
 - Austria: World Federation of Diamond Clubs: info@worldfed.com.

- Belgium: Beurs Voor Diamanthehandel: info@diamondbourse.be, Syndikaat Der Belgische Diamantnijverheid (SDB): sdb@sdb.be and HRD Antwerp NV: info@hrd.be.
- Canada: Canadian Jewellers Institute: cji@canadianjewellers.com.
- China: Shanghai Diamond Exchange: members@cnsde.com.
- England: The London Diamond Bourse: Maxime@londonbourse.com.
- India: Bharat Diamond Bourse: info@bdbindia.org.
- Israel: Israel Diamond Exchange Ltd: irit@isde.co.il and The Israel Manufacturers Association Ltd: besser@isdma.com.
- Netherlands: Vereniging Beurs Voor Den Diamonthehandel: Diamondbourse. Amsterdam@inter.NL.net and Algemene Juweliersvereniging: royal@asscher.nl.
- Sri Lanka: Sri Lanka Diamond Manufacturers Association: nigel.austin@nisol.lk.
- Thailand: Bangkok Diamond and Precious Stones Exchange: bdpe@ksc.th.com and The Thai Diamond Diamond Manufacturers Association: tdma@loxinfo.co.th.
- USA: New York Diamond Dealers Club: mhochbaum@ddcny.com and Diamond Manufacturers & Importers Association of America: wfdiamonds@aol.com.

These countries were contacted because they are the countries where major diamond processing takes place.

The enquiries reveal that there are centres that offer qualifications in diamond and gemstone valuation in various countries, but there appears to be no formal qualification for people who process rough diamonds into cut and polished gemstones.

In South Africa, the diamond processing industry has existed in a formal business environment for over one hundred years. Whilst there has been recognition for journeymen in the various trades, there has been no nationally or internationally recognized qualification for the processing of diamonds at the level of this qualification.

Qualifications designed in South Africa for the journeymen positions of Sawyer, Bruter, Crossworker and Brillianteer have been assessed as superior to the journeyman trade tests that have existed. The same structure to the qualification at NQF Level 3 has been applied and can be considered to be superior in the application of theory to practical abilities as those that have replaced the journeyman trade tests.

Feedback from associates of South African training and professional service providers from Belgium and Canada has indicated that the unit standards developed in South Africa are of a high standard. Experienced managers and craftsmen in South Africa with international experience have also indicated that the standard of unit standards that make up this qualification are at a level that is comparable to best practices in countries such as Belgium, Israel, China and India. Sources of this information come from experienced people working with international connections from organisations that include:

- Diamond Education College: Mr. Teinie Barnes.
- EGL: Mr. Alan Lowe and Mr. Brian Lyle.
- Harry Oppenheimer Diamond Training School: Mr. Koos Rademeyer.
- RosyBlue: Mr. Ravi Samarakone and Mr. Collin Sellwood.
- Safdico: Mr. Derek Henderson.
- UASA: Mr. John Leenaerts and Mr. Jan Swanpoel.
- Vancut Diamond Cutting Works: Mr. Ilan Richer.
- Zlotowskis Diamond Cutting Works: Mr. Daan Royffe and Mr. Howard Bell.

Contact has been made with organisations in SADC countries who are also seeking to establish recognition for the same skills as covered by this qualification. Neither Namibia nor Botswana, who are rapidly developing diamond processing skills, have a formal system and the MQA has been approached to establish whether through SADC qualifications developed in South Africa could be used to establish regional standards.

In conclusion, it appears that South Africa has been the first country to establish formal national qualifications in diamond processing and that no other comparable international qualifications yet exist.

ARTICULATION OPTIONS

This qualification allows for both vertical and horizontal articulation.

Vertical articulation exists with:

- ID 21845: National Certificate: Diamond Processing: Polisher - Crossworker, NQF Level 4.

The learner, once equipped with the competencies of this qualification will be positioned to adopt learning in one of the recognised trades of Sawyer, Crossworker, Brillianteer or fancy stone maker. Alternatively the learner may pursue the path of diamond design and examination and ultimately one of supervision and management in the industry.

Horizontal articulation exists between the five specialisation areas contained in this qualification.

MODERATION OPTIONS

- Anyone assessing a learner or moderating the assessment of a learner against the qualification must be registered as an assessor with the relevant Education, Training, Quality, Assurance (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- Any institution offering learning that will enable the achievement of this qualification must be accredited as a provider with the relevant Education, Training, Quality, Assurance (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.
- Assessment and moderation of assessment will be overseen by the relevant Education, Training, Quality, Assurance (ETQA) Body, or by an ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA's policies and guidelines for assessment and moderation.
- Moderation must include both internal and external moderation of assessments, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described in the associated unit standards.
- Anyone wishing to be assessed against this qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Assessors should be in possession of:

- An appropriate qualification at or above the level of the qualification and preferably relevant workplace practical experience.
- Registration as an assessor with the relevant ETQA

NOTES

This qualification replaces qualification 21846, "National Certificate: Diamond Processing Operator", Level 2, 129 credits.

UNIT STANDARDS

ID	UNIT STANDARD TITLE	LEVEL	CREDITS
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Source: National Learners' Records Database

Qualification 59851

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	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	9010	Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	Level 3	2
Fundamental	9013	Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 3	4
Fundamental	119466	Interpret a variety of literary texts	Level 3	5
Fundamental	119457	Interpret and use information from texts	Level 3	5
Fundamental	9012	Investigate life and work related problems using data and probabilities	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	7456	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5
Core	116520	Apply safety, health and environmental principles and procedures in a workplace	Level 2	2
Core	253837	Describe the history of the diamond processing industry	Level 2	2
Core	253802	Describe the shapes and applications of diamond gemstones	Level 2	2
Core	253806	Describe the structure of the diamond processing industry	Level 2	2
Core	253821	Explain the requirements for the security of diamonds	Level 2	2
Core	253796	Demonstrate a basic understanding of the use of tools and equipment used for processing diamonds	Level 3	2
Core	253815	Describe process control systems for processing diamond gemstones	Level 3	2
Core	253855	Understand the characteristics of gem diamonds	Level 3	10
Core	253817	Use a loupe to examine diamond gemstones	Level 3	8
Elective	120308	Apply knowledge of self in order to make a personal decision	Level 2	3
Elective	253805	Fix diamond gemstones with cement for cutting	Level 2	5
Elective	253810	Level tangs for polishing diamond gemstones	Level 2	2
Elective	253811	Prepare a scaiffe for polishing diamond gemstones	Level 2	2
Elective	253813	Screen diamond gemstones	Level 2	5
Elective	253801	Set diamond gemstones for polishing using the press pot system	Level 2	3
Elective	253814	Set up a bench and level a scaiffe for polishing diamond gemstones	Level 2	2
Elective	13912	Apply knowledge of self and team in order to develop a plan to enhance team performance	Level 3	5
Elective	253803	Block bottoms on diamond gemstones using automatic machinery	Level 3	12
Elective	253812	Block tops on diamond gemstones using automatic machinery	Level 3	15
Elective	253795	Bottom block diamond gemstones	Level 3	15
Elective	253820	Facet the Girdle by machine	Level 3	20
Elective	253818	Open windows on diamond gemstones	Level 3	10
Elective	253800	Polish bottom halves on diamond gemstones	Level 3	20
Elective	253816	Polish bottoms on diamond gemstones using automatic machinery	Level 3	15
Elective	253834	Polish stars on diamond gemstones	Level 3	17
Elective	253838	Polish top halves on diamond gemstones	Level 3	18
Elective	253807	Polish tops on diamond gemstones using automatic machinery	Level 3	12
Elective	253804	Prepare and polish tables on diamond gemstones	Level 3	10
Elective	253797	Prepare makeable diamond gemstones for processing	Level 3	18
Elective	253809	Prepare sawn diamond gemstones for processing	Level 3	18
Elective	253819	Remove Impurities in Diamond Gemstones through boiling	Level 3	4
Elective	253799	Rondist diamond gemstones using semi-automatic equipment	Level 3	18
Elective	253854	Rough cut diamond gemstones using diamond impregnated wheels	Level 3	20
Elective	253822	Rough cut diamond gemstones using double spindle machinery	Level 3	20
Elective	253836	Top block diamond gemstones	Level 3	10
Elective	253798	Top lap diamond gemstones	Level 3	20

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Elective	253794	Describe the process of fabrication for polishing diamond gemstones	Level 4	12
Elective	253808	Operate adjustable tongs for polishing diamond gemstones	Level 4	5

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION**None**



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Describe the process of fabrication for polishing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253794	Describe the process of fabrication for polishing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	12

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10520	Describe the process of fabrication for polishing diamond gemstones	Level 4	13	Will occur as soon as 253794 is registered

SPECIFIC OUTCOME 1

Identify the equipment used in processing diamond gemstones and explain their use in different applications.

SPECIFIC OUTCOME 2

Describe the traditional method of polishing diamond gemstones.

SPECIFIC OUTCOME 3

Describe the chain methods of polishing diamond gemstones.

SPECIFIC OUTCOME 4

Describe the critical checkpoints in fabrication of diamond gemstones and their importance for overall quality, weight and value of the finished article.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Bottom block diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
253795	Bottom block diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	15

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform bottom blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Locate into tangs diamond gemstones that have been set in appropriate pots.

SPECIFIC OUTCOME 5

Prepare the four bottom corners and pavilions on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-bottom-blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

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

SAQA US ID	UNIT STANDARD TITLE		
253796	Demonstrate a basic understanding of the use of tools and equipment used for processing diamonds		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110219	Demonstrate a basic understanding of the use of tools and equipment used for processing diamonds	Level 1	2	Will occur as soon as 253796 is registered

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.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Prepare makeable diamond gemstones for processing***

SAQA US ID	UNIT STANDARD TITLE		
253797	Prepare makeable diamond gemstones for processing		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to prepare diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing.

SPECIFIC OUTCOME 3

Set and clamp diamond gemstones for preparation.

SPECIFIC OUTCOME 4

Prepare diamond gemstones for processing.

SPECIFIC OUTCOME 5

Conduct post-preparation cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Top lap diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253798	Top lap diamond gemstones		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform top lapping on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for top lapping.

SPECIFIC OUTCOME 5

Finish the four top corners and four bazeels on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-top-lapping cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Rondist diamond gemstones using semi-automatic equipment

SAQA US ID	UNIT STANDARD TITLE		
253799	Rondist diamond gemstones using semi-automatic equipment		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to rondist diamond gemstones by semi-automatic equipment and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for rondisting.

SPECIFIC OUTCOME 3

Prepare to rondist diamond gemstones.

SPECIFIC OUTCOME 4

Carry out rondisting on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-rondisting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Polish bottom halves on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253800	Polish bottom halves on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to add bottom halves on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for polishing bottom halves.

SPECIFIC OUTCOME 5

Finish the sixteen bottom halves on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-bottom-half cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:*Set diamond gemstones for polishing using the press pot system*

SAQA US ID	UNIT STANDARD TITLE		
253801	Set diamond gemstones for polishing using the press pot system		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	3

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10519	Set diamond gemstones for polishing using the press pot system	Level 2	3	Will occur as soon as 253801 is registered

SPECIFIC OUTCOME 1

Describe the use of the different sizes and depth of press pots for polishing.

SPECIFIC OUTCOME 2

Explain the implications for setting of diamond gemstones.

SPECIFIC OUTCOME 3

Set diamond gemstones into appropriate pots.

SPECIFIC OUTCOME 4

Conduct post-setting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Describe the shapes and applications of diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253802	Describe the shapes and applications of diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110129	Describe the shapes and applications of diamond gemstones	Level 1	1	Will occur as soon as 253802 is registered

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.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Block bottoms on diamond gemstones using automatic machinery***

SAQA US ID	UNIT STANDARD TITLE		
253803	Block bottoms on diamond gemstones using automatic machinery		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform automatic bottom blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Locate diamond gemstones into automatic blocking machines after screening.

SPECIFIC OUTCOME 3

Perform automatic blocking on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-automatic-blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Prepare and polish tables on diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253804	Prepare and polish tables on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to prepare and polish tables on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for preparing and polishing tables.

SPECIFIC OUTCOME 5

Prepare and polish table facets on diamond gemstones according to instructions from the Marker.

SPECIFIC OUTCOME 6

Conduct post-prepare-and-polish-tables cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Fix diamond gemstones with cement for cutting***

SAQA US ID	UNIT STANDARD TITLE		
253805	Fix diamond gemstones with cement for cutting		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	5

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Describe the use of the different sizes of dops for fixing stones.

SPECIFIC OUTCOME 2

Explain the implications for the fixing of a diamond gemstone.

SPECIFIC OUTCOME 3

Fix diamond gemstones onto appropriate dops.

SPECIFIC OUTCOME 4

Conduct post-fixing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Describe the structure of the diamond processing industry

SAQA US ID	UNIT STANDARD TITLE		
253806	Describe the structure of the diamond processing industry		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10495	Describe the structure of the diamond processing industry	Level 1	3	Will occur as soon as 253806 is registered

SPECIFIC OUTCOME 1

Identify the role-players in the industry and describe their function and inter-relationships.

SPECIFIC OUTCOME 2

Demonstrate knowledge of terminology used in the industry.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the economics of the diamond processing industry locally and internationally.

SPECIFIC OUTCOME 4

Describe the basic legal requirements to operate in the diamond processing industry.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Polish tops on diamond gemstones using automatic machinery***

SAQA US ID		UNIT STANDARD TITLE	
253807		Polish tops on diamond gemstones using automatic machinery	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	12

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform automatic top polishing on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Locate diamond gemstones into automatic polishing machines after screening.

SPECIFIC OUTCOME 3

Perform automatic top polishing on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-automatic-top-polishing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Operate adjustable tangs for polishing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253808	Operate adjustable tangs for polishing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 4	5

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools required to level tangs for polishing diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Level tangs with a bench and a scaiffe.

SPECIFIC OUTCOME 3

Operate adjustable tangs to polish the required facet of a diamond gemstone.

SPECIFIC OUTCOME 4

Conduct post tang-operating activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Prepare sawn diamond gemstones for processing***

SAQA US ID		UNIT STANDARD TITLE	
253809		Prepare sawn diamond gemstones for processing	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to prepare diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing.

SPECIFIC OUTCOME 3

Set and clamp diamond gemstones for preparation.

SPECIFIC OUTCOME 4

Prepare diamond gemstones for processing.

SPECIFIC OUTCOME 5

Conduct post-preparation cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Level tangs for polishing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253810	Level tangs for polishing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10518	Level tangs for polishing diamond gemstones	Level 1	2	Will occur as soon as 253810 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools required to level tangs for polishing diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Level tangs with a bench and a scaiffe.

SPECIFIC OUTCOME 3

Conduct post tang-levelling activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Prepare a scaiffe for polishing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253811	Prepare a scaiffe for polishing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10517	Prepare a scaiffe for polishing diamond gemstones	Level 2	2	Will occur as soon as 253811 is registered

SPECIFIC OUTCOME 1

Identify the material and tools required to prepare a scaiffe for polishing diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Prepare the surface of a scaiffe.

SPECIFIC OUTCOME 3

Conduct post scaiffe preparation activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Block tops on diamond gemstones using automatic machinery***

SAQA US ID	UNIT STANDARD TITLE		
253812	Block tops on diamond gemstones using automatic machinery		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	15

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform automatic top blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Locate diamond gemstones into automatic blocking machines after screening.

SPECIFIC OUTCOME 3

Perform automatic top blocking on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-automatic-blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Screen diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
253813		Screen diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	5

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10573	Screen diamond gemstones for polishing using the press pot system	Level 3	7	Will occur as soon as 253813 is registered

SPECIFIC OUTCOME 1

Describe the importance of angles, table sizes, position and depth when setting.

SPECIFIC OUTCOME 2

Explain the implications for programming dimensions when screening a diamond gemstone.

SPECIFIC OUTCOME 3

Screen diamond gemstones on appropriate platforms and in pots and rings.

SPECIFIC OUTCOME 4

Conduct post-screening cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Set up a bench and level a scaiffe for polishing diamond gemstones***

SAQA US ID		UNIT STANDARD TITLE	
253814		Set up a bench and level a scaiffe for polishing diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10516	Set up a bench and level a scaiffe for polishing diamond gemstones	Level 2	2	Will occur as soon as 253814 is registered

SPECIFIC OUTCOME 1

Identify the equipment and tools required to set up a bench and level a scaiffe for polishing diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Set up and align a bench and a scaiffe.

SPECIFIC OUTCOME 3

Conduct post set up activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Describe process control systems for processing diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253815	Describe process control systems for processing diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	2

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Outline the basis upon which diamond gemstones are valued.

SPECIFIC OUTCOME 2

Describe the stages of processing diamond gemstones.

SPECIFIC OUTCOME 3

Describe the controls in the process to ensure that the diamond gemstone is processed to the design, quality and productivity required.

SPECIFIC OUTCOME 4

Explain the consequences of non-adherence to process control systems.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Polish bottoms on diamond gemstones using automatic machinery***

SAQA US ID		UNIT STANDARD TITLE	
253816		Polish bottoms on diamond gemstones using automatic machinery	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	15

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform automatic bottom polishing on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Locate diamond gemstones into automatic polishing machines after screening.

SPECIFIC OUTCOME 3

Perform automatic bottom polishing on diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post-automatic-bottom-polishing cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Use a loupe to examine diamond gemstones

SAQA US ID		UNIT STANDARD TITLE	
253817		Use a loupe to examine diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	8

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10491	Use a loupe to examine diamond gemstones	Level 1	8	Will occur as soon as 253817 is registered

SPECIFIC OUTCOME 1

Identify loupes to examine diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Prepare for and use a loupe to examine a diamond gemstone.

SPECIFIC OUTCOME 3

Protect and maintain loupes.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Open windows on diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
253818	Open windows on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to open windows on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for opening windows on sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for opening windows on makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for opening windows.

SPECIFIC OUTCOME 5

Open windows on diamond gemstones according to instructions from the Marker.

SPECIFIC OUTCOME 6

Conduct post-window-opening cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Remove Impurities in Diamond Gemstones through boiling

SAQA US ID	UNIT STANDARD TITLE		
253819	Remove Impurities in Diamond Gemstones through boiling		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	4

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110206	Remove impurities in diamond gemstones through boiling	Level 2	4	Will occur as soon as 253819 is registered

SPECIFIC OUTCOME 1

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

SPECIFIC OUTCOME 2

Prepare to boil diamond gemstones.

SPECIFIC OUTCOME 3

Boil diamond gemstones.

SPECIFIC OUTCOME 4

Conduct post boiling cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Facet the Girdle by machine

SAQA US ID	UNIT STANDARD TITLE		
253820	Facet the Girdle by machine		
ORIGINATOR			PROVIDER
SGB Mining and Minerals			
FIELD			SUBFIELD
6 - Manufacturing, Engineering and Technology			Fabrication and Extraction
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to girdle facet diamond gemstones using machinery and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for girdle faceting.

SPECIFIC OUTCOME 3

Clamp diamond gemstones for girdle faceting.

SPECIFIC OUTCOME 4

Facet girdles on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-girdle faceting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Explain the requirements for the security of diamonds

SAQA US ID	UNIT STANDARD TITLE		
253821	Explain the requirements for the security of diamonds		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
10499	Explain the requirements for the security of diamonds	Level 1	1	Will occur as soon as 253821 is registered

SPECIFIC OUTCOME 1

Describe the general requirements for safeguarding diamonds in the workplace.

SPECIFIC OUTCOME 2

Explain the implications of receiving and issuing of diamonds in the workplace.

SPECIFIC OUTCOME 3

Explain the importance of and the key features of the Kimberley process.

SPECIFIC OUTCOME 4

Describe the rights of an owner and employees in taking measures to safeguard diamonds.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Rough cut diamond gemstones using double spindle machinery

SAQA US ID	UNIT STANDARD TITLE		
253822	Rough cut diamond gemstones using double spindle machinery		
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to rough cut diamond gemstones by double spindle machinery and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for rough cutting.

SPECIFIC OUTCOME 3

Prepare to rough cut diamond gemstones.

SPECIFIC OUTCOME 4

Carry out rough cutting on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-rough-cutting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Polish stars on diamond gemstones***

SAQA US ID	UNIT STANDARD TITLE		
253834	Polish stars on diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	17

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Conduct post-star-making cleaning, checking and security activities.

SPECIFIC OUTCOME 2

Identify the equipment and tools used to make stars on diamond gemstones and describe their application.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 4

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 5

Set and clamp diamond gemstones for making stars.

SPECIFIC OUTCOME 6

Polish the eight star facets on diamond gemstones.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Bottom lap diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253835	Bottom lap diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform bottom lapping on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for bottom lapping.

SPECIFIC OUTCOME 5

Finish the four bottom corners and four pavilions on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-bottom-lapping cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Top block diamond gemstones

SAQA US ID	UNIT STANDARD TITLE		
253836	Top block diamond gemstones		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to perform top blocking on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Select an appropriate pot, set diamond gemstones and locate in tangs.

SPECIFIC OUTCOME 5

Prepare the four top corners and bazeels on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-top-blocking cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:*Describe the history of the diamond processing industry*

SAQA US ID	UNIT STANDARD TITLE		
253837	Describe the history of the diamond processing industry		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 2	2

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
110123	Describe the history of the diamond processing industry	Level 1	2	Will occur as soon as 253837 is registered

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.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Polish top halves on diamond gemstones***

SAQA US ID		UNIT STANDARD TITLE	
253838		Polish top halves on diamond gemstones	
ORIGINATOR		PROVIDER	
SGB Mining and Minerals			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Fabrication and Extraction	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	18

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to polish top halves on diamond gemstones and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing sawn stones.

SPECIFIC OUTCOME 3

Demonstrate knowledge of the structure of diamond gemstones and the implications for polishing makeable stones.

SPECIFIC OUTCOME 4

Set and clamp diamond gemstones for polishing top halves.

SPECIFIC OUTCOME 5

Finish the final sixteen top halves on diamond gemstones.

SPECIFIC OUTCOME 6

Conduct post-top-half cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Rough cut diamond gemstones using diamond impregnated wheels

SAQA US ID	UNIT STANDARD TITLE		
253854	Rough cut diamond gemstones using diamond impregnated wheels		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	20

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify the equipment and tools used to rough cut diamond gemstones by diamond impregnated wheels and describe their application.

SPECIFIC OUTCOME 2

Demonstrate knowledge of the structure of diamond gemstones and the implications for rough cutting.

SPECIFIC OUTCOME 3

Prepare to rough cut diamond gemstones.

SPECIFIC OUTCOME 4

Carry out rough cutting on diamond gemstones.

SPECIFIC OUTCOME 5

Conduct post-rough-cutting cleaning, checking and security activities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Elective	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Understand the characteristics of gem diamonds***

SAQA US ID	UNIT STANDARD TITLE		
253855	Understand the characteristics of gem diamonds		
ORIGINATOR	PROVIDER		
SGB Mining and Minerals			
FIELD	SUBFIELD		
6 - Manufacturing, Engineering and Technology	Fabrication and Extraction		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1

Identify different crystal forms and explain their key features and peculiarities.

SPECIFIC OUTCOME 2

Identify different diamond types and describe the colour effects and treatments in diamonds.

SPECIFIC OUTCOME 3

Explain the physical properties of diamonds, identify types of inclusion and their treatment in relation to polishing diamond gemstones.

SPECIFIC OUTCOME 4

Identify synthetic diamonds and simulants and distinguish their key features from those of diamond gemstones.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL	STATUS	END DATE
Core	59851	National Certificate: Diamond Processing	Level 3	Draft - Prep for P Comment	