

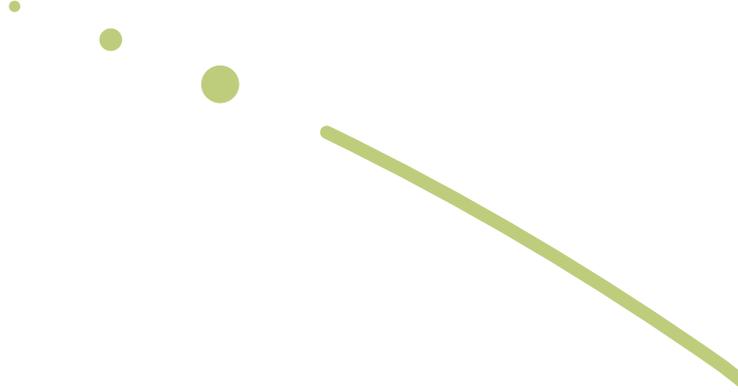


Council for Geoscience

ANNUAL 2011 REPORT

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Council for Geoscience

ANNUAL REPORT

for the period ended March 2011

leading
earth-science
solutions



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Management Board

COUNCIL FOR GEOSCIENCE



Chairperson of the Board

Prof P E Ngoepe
University of Limpopo



Chief Executive Officer

Dr T Ramontja
Council for Geoscience



Ms K R Mthimunye
Bluewaves Consulting Services



Ms L McCourt
Department of Environmental Affairs



Mr M P Nepfumbada
Department of Water Affairs



Dr D G Clarke
*Department of Rural Development
and Land Reform*



Mr M Mabuz
Department of Mineral Resources



Mr M Smith
Chamber of Mines



Prof J M Barton Jr
Geological Society of South Africa



Mr K Hodges
Industrial Development Corporation

Alternate Members

Mr W Kleynhans
Alternate to Mr K Hodges
Industrial Development Corporation

Ms D Mochotlhi
Alternate to Mr M P Nephumbada
Department of Water Affairs

Ms F N Nzimande
Alternate to Mr M Mabuz
Department of Mineral Resources

Mr M Riba
Alternate to Dr D G Clarke
Department of Rural Development and Land Reform

Dr C B Smith
Alternate to Prof J M Barton Jr
Geological Society of South Africa



Review

CHAIRPERSON OF THE BOARD AND THE CHIEF EXECUTIVE OFFICER
OF THE COUNCIL FOR GEOSCIENCE

6 | The 2010/11 financial year was a year of challenge for the Council for Geoscience. It was mostly fuelled through a strained financial situation that permeated into the very fabric of the organisation. The global financial crisis caused many of the traditional clients of the organisation to cut their budgets over multiple years. As a consequence, the Council for Geoscience carried the full force of a significant decrease in income, and a R22,1 million loss in the 2009/10 financial year. To combat this, the Management Board and the Executive Management of the Council for Geoscience developed and implemented short-term strategies within a short time period to protect the organisation and its staff from further losses. To ensure the long-term sustainability of the organisation, direct costs were reduced to a minimum, which included the suspension of geoscience mapping, a significant reduction in the geoscience library budget, the termination of the printing of maps and other Council for Geoscience publications and a

suspension of new appointments, including bursars that had obtained their degrees during this period. These measures were all deemed necessary to ensure the sustainability of the organisation and resulted in a surplus of R15,3 million for the year.

At the core of the financial crisis that the Council for Geoscience faced during the year lies the baseline funding that the organisation receives. This was exposed to be insufficient to do much-needed geoscience investigations for the country. It is now clear that public-good services and the mandatory function of the Council for Geoscience, in support of national imperatives, can only be undertaken when a commercial surplus is made. This surplus must be available in order to fund the completion of the Annual Technical Programme, the capitalisation of infrastructure and the investment into human capital, especially skills development and the transformation of the organisation.

The technical performance of the Council for Geoscience for the past year was good, with an exceptionally high number of articles published, which testifies to the dedication of its staff and the sound management of the organisation.



Prof P E Ngoepe
Chairperson of the Board



Dr T Ramontja
Chief Executive Officer

A consequence of this financial model is that it requires the organisation to pursue commercial projects, especially outside the borders of the country and, hence, many of the Council for Geoscience geoscientists are placed to work in other countries, rather than working on the geoscience issues facing South Africa. It is a situation that will receive more attention during the strategic planning process for the organisation in the forthcoming year.

The suspension of direct expenditure on statutory projects resulted in a reduced technical programme. However, the Board and Management are pleased

to report that, despite the financial difficulties of the organisation, it reached a high level of completion of its public-good research. In this regard, the technical performance of the Council for Geoscience for the past year was good, which testifies to the dedication of its staff and the sound management of the organisation. The statutory programme of the organisation forms a key part of its mandate, and also provides an opportunity for young geoscientists to develop as researchers.

The Council for Geoscience has, since the end of 2010, noticed a marked improvement in the

availability of geoscience-related projects, both nationally and internationally. Some positive outcomes so far include negotiations between the organisation and Eskom, culminating in the signing of a new contract, and the submission of several large tenders. It is hoped that this trend will intensify in the next financial year. To improve the competitiveness of the organisation, the Council for Geoscience has compiled the procedures necessary for the organisation to reach ISO 9001 certification and ISO 17025 accreditation for the laboratories. The forthcoming year will be devoted to the implementation of the ISO procedures in preparation for final ISO certification and accreditation.

The Geoscience Amendment Act (Act No. 16 of 2010) was signed into power by the President of South Africa in December 2010. This Act extends the functions of the organisation to include the rendering of advisory services in respect of geohazards and geo-environmental pollution, and of acting as custodian of all geoscience information. The process of preparing for the implementation of the Act has begun and will continue during the course of the next financial year.

The Council for Geoscience continued with its collaborative African agenda during the year under review. Geoscience information and expertise are critical for Africa, in particular when considering the mineral wealth of the continent, but it is also necessary to address other important challenges such as water shortages, pollution and geohazards. In this regard, the organisation has been involved in a number of key projects for several years now, and it is envisaged that this involvement will remain and may be extended over time. Some examples of this involvement are:

- The compilation of the SADC geohydrological map
- The establishment of and involvement in various geoscience partnerships aimed at developing African infrastructural capacity and capabilities, for instance with the University

of the Witwatersrand and Pennsylvania State University in *AfricaArray*

- The Council for Geoscience is a key role player within the Organisation of African Geological Surveys (OAGS), a NEPAD initiative, of which the mandate is to foster and sustain government-supported geoscience endeavours and excellence on the African continent
- The specific aims of the Council for Geoscience include creating regional and continent-wide promotional maps and documents to inform decision makers in government and industry on matters relating to the applied geosciences
- The provision of direct capacity-building support to African geological surveys through various programmes and interventions
- The Council for Geoscience, together with the Geological Society of South Africa, won the bid to host the 35th International Geological Congress (IGC) in 2016 in Cape Town. The IGC is one of the largest general geology congresses in the world. It is held every four years and attracts over 6 000 geoscientists. Holding this congress in South Africa, in collaboration with other southern African countries, will provide an excellent opportunity for capacity building and the development of the geosciences in the region. The organisation needs to secure considerable funding over the next four years for this event.

A fundamental role of any national geoscience institution such as the Council for Geoscience has historically always been the acquisition of new geoscience data. This usually took the form of geological mapping, geophysical surveys or national or regional geochemical sampling programmes. However, the increasing interest in and concern with dynamic systems, such as the environment and geohazards, is changing the traditional role of geological surveys worldwide. Extensive studies related to environmental and quality-of-life issues, land-use planning and development and the monitoring and mitigation of geohazards are required. This also implies that historical geoscience data gathering is

no longer a 'once-off' process, but one that needs to be done increasingly on a continual, monitoring and real-time basis.

As an example of this type of investigation, the organisation has been involved in the Strategic Water Management Programme of South Africa for several years. The country's mining history has generated vast economic benefit for our country and still plays an important role in ensuring our position in the global market. Despite such benefit, large-scale closure of mining operations since the 1970s within the Witwatersrand mining regions and the subsequent termination of the extraction of underground water from mines has become an important national concern. The activities of the mining sector have resulted in serious environmental consequences and, in the case of the gold mines of the Witwatersrand, acid mine drainage. Given the magnitude and dynamics of the South African mining industry, it must be accepted that the challenges of mine water management cannot be administered by either Government or the mining sector alone. The final report of a Team of Experts on acid mine drainage was submitted to Cabinet in February 2011.

In addition, the Council for Geoscience continued to curate the South African Minerals Database, a

depository of data on mineral occurrences, mineral deposits and mines in South Africa. The objective of the South African Minerals Database project is to capture, store and continually update mineral data on mines, mineral deposits and mineral occurrences within the borders of South Africa and to provide data to users in South Africa and abroad. The database currently houses about 20 000 mineral records, as well as 6 500 records of derelict and ownerless mines in South Africa.

The Board and Management of the Council for Geoscience are highly appreciative of the dedication, loyalty and commitment shown by the staff in a difficult and unpredictable time for the organisation. Although staffing issues and insufficient baseline funding represent key challenges to the organisation, it is gratifying to see the Council for Geoscience focusing on national strategic issues such as energy security and water. We are certain that with the continued support of the staff, the organisation will strengthen its focus on similar national issues where geoscience has a role to play.

The Management Board and Executive Management of the Council for Geoscience would like to thank the Ministers and staff of the Departments of Mineral Resources and of Science and Technology for their valued support.



Prof P E Ngoepe

Chairperson: Management Board of the
Council for Geoscience



Dr T Ramontja

Chief Executive Officer

Abridged Board Charter

PER PFMA AND PROTOCOL ON CORPORATE GOVERNANCE

Board Charter

A Board Charter was developed and established for the Management Board of the Council for Geoscience. The Charter defines the governance parameters within which the Board exists and sets out specific responsibilities to be discharged by the Board.

The Board is fully committed to applying the fundamental principles of good governance, transparency, integrity, accountability and responsibility in all dealings by, in respect and on behalf of the Council for Geoscience. It accordingly embraces the principles of good governance as set out in the Public Finance Management Act (Act No. 1 of 1999, as amended) and the Protocol on Corporate Governance in the Public Sector.

The charter confirms the Board's

- role in exercising leadership, judgement and providing strategic direction
- composition
- accountability
- fiduciary duties and responsibilities
- code of conduct
- appointment of committees
- governance and meeting procedures
- duty to declare conflict of interests
- responsibility for adoption of strategic plans
- monitoring of operational performance and management
- determination of policy and processes to ensure the integrity of the Council for Geoscience's risk management and internal controls
- communications policy
- director selection, orientation and evaluation.

The Board Charter is reviewed, as and when necessary, to ensure that it remains relevant to the business objectives of the Council for Geoscience.

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Statement of Responsibility

Council for Geoscience

Responsibility of the Management Board for the Annual Financial Statements

The Board Members are responsible for the monitoring, preparation and the integrity of the financial statements and related information included in this annual report.

For the Board to discharge its responsibilities, Management has developed and continues to maintain a system of internal controls. The Board has the ultimate responsibility for the system of internal controls and reviews its operation primarily through management structures.

The internal controls include a risk-based system of internal accounting and administrative controls designed to provide reasonable, but not absolute assurance that assets are safeguarded and that transactions are executed and recorded in accordance with generally accepted business practices and the policies and procedures of the Council for Geoscience. These controls are implemented by trained and skilled personnel, with an appropriate segregation of duties, and are monitored by Management. These include a comprehensive budgeting and reporting system operating within strict deadlines and an appropriate control framework.

The Board is accountable for the process of risk management and the system of internal controls for the Council for Geoscience. This process is regularly reviewed for effectiveness and for establishing appropriate risk and control policies, and communicating these throughout the organisation. There is an ongoing process for identifying, evaluating and managing the significant risks faced by the organisation. The process has been in place for the year under review, up to the date of approval of the annual report and financial statements.

There is an adequate system of internal controls in place to mitigate any significant risk faced by the organisation to an acceptable level. This system is designed to manage, rather than eliminate, the risk of failure and to maximise the opportunities to achieve business objectives. There is a documented and tested process in

position that will allow the organisation to continue its critical business processes in the event of a disastrous incident impacting on its activities.

The external auditors are responsible for reporting on the financial statements. These financial statements are prepared in accordance with South African Statements of Generally Recognised Accounting Practices and incorporate disclosure in line with the accounting philosophy of the company. The financial statements are based on appropriate accounting policies that are consistently applied and supported by reasonable and prudent judgements and estimates.

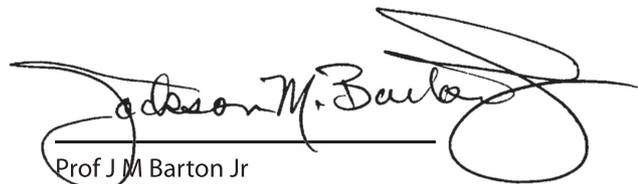
The Board Members believe that the organisation will be a going concern in the year ahead; for this reason they continue to adopt the going-concern basis in preparing the financial statements of the Council for Geoscience.

The Board Members are not aware of any matter or circumstance arising since the end of the financial year, not otherwise dealt with in the Council for Geoscience's annual financial statements, that would affect the operations of the organisation or the results of its operations significantly. The annual financial statements for the year 2010/11 were approved by the Accounting Authority in terms of section 51(1)(f) of the Public Finance Management Act (Act No. 1 of 1999, as amended) on 29 July 2011, and are signed on its behalf by:



Prof P E Ngoepe

Chairperson: Management Board
of the Council for Geoscience



Prof J M Barton Jr

Member: Management Board
of the Council for Geoscience

29 July 2011

Pretoria

REPORT OF THE AUDITOR-GENERAL

REPORT OF THE AUDITOR-GENERAL TO PARLIAMENT ON THE COUNCIL FOR GEOSCIENCE

REPORT ON THE FINANCIAL STATEMENTS

Introduction

1. I have audited the accompanying financial statements of the Council for Geoscience, which comprise the statement of financial position as at 31 March 2011, and the statement of financial performance, statement of changes in net assets and cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory information as set out on pages 38 to 68.

Accounting authority's responsibility for the financial statements

2. The accounting authority is responsible for the preparation and fair presentation of these financial statements in accordance with the South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) and the requirements of the Public Finance Management Act of South Africa, 1999 (Act No. 1 of 1999) (PFMA), and for such internal control as management determines necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor-General's responsibility

3. As required by section 188 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) and section 4 of the Public Audit Act of South Africa, 2004 (Act No. 25 of 2004) (PAA), my responsibility is to express an opinion on these financial statements based on my audit.
4. I conducted my audit in accordance with International Standards on Auditing and *General Notice 1111 of 2010* issued in *Government Gazette 33872 of 15 December 2010*. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.
5. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's

preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

6. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

7. In my opinion, the financial statements present fairly, in all material respects, the financial position of the Council for Geoscience as at 31 March 2011, and its financial performance and cash flows for the year then ended in accordance with the South African Standards of Generally Recognised Accounting Practice (SA Standards of GRAP) and the requirements of the PFMA.

Report on other legal and regulatory requirements

8. In accordance with the PAA and in terms of *General Notice 1111 of 2010*, issued in *Government Gazette 33872 of 15 December 2010*, I include below my findings on the annual performance report as set out on pages 30 to 34 and material non-compliance with laws and regulations applicable to the public entity.

Predetermined objectives

9. There were no material findings on the annual performance report concerning the presentation, usefulness and reliability of the information.

Compliance with laws and regulations

10. There were no findings concerning material non-compliance with applicable laws and regulations regarding financial matters, financial management and other related matters.

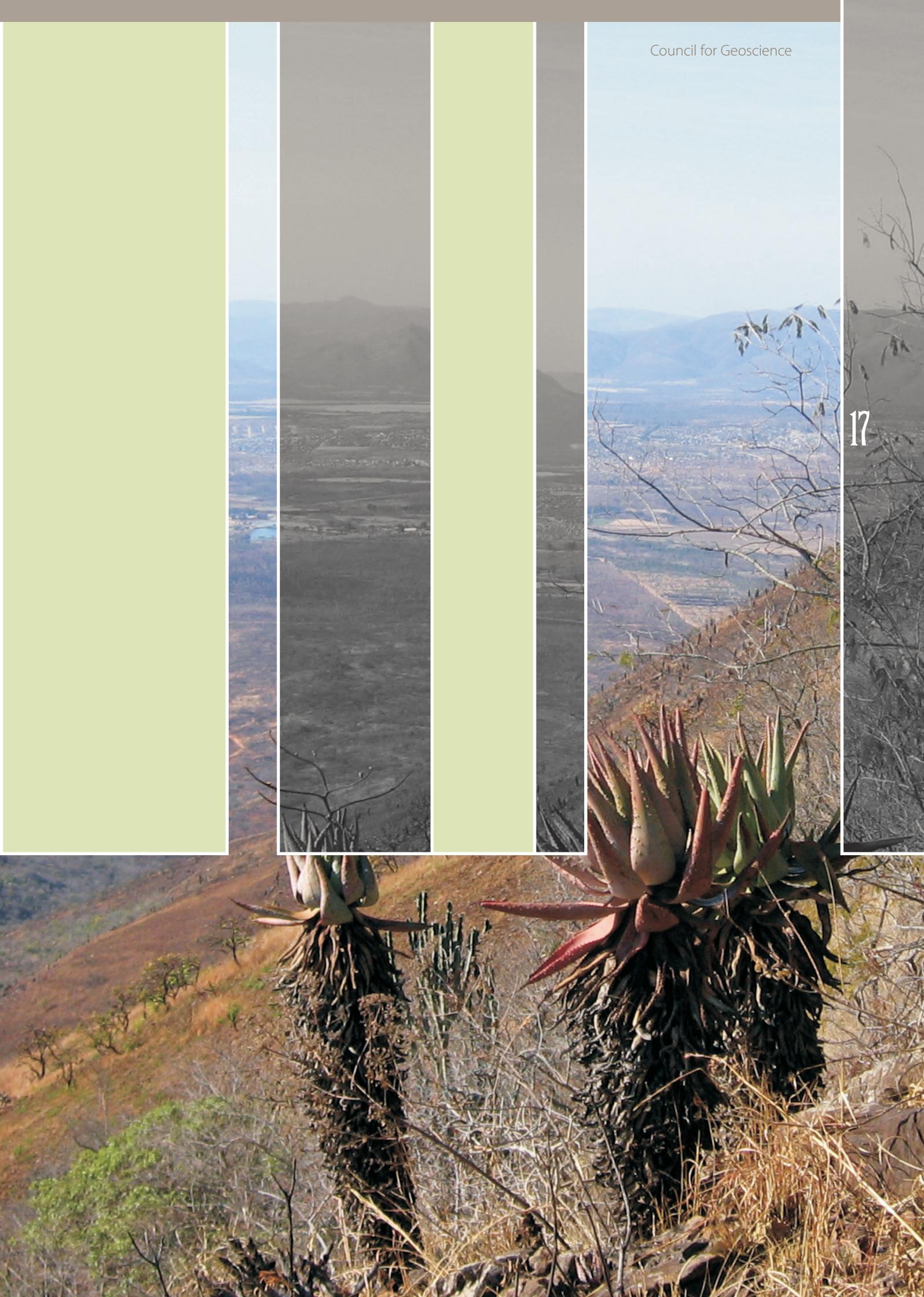
Internal control

11. In accordance with the PAA and in terms of *General Notice 1111 of 2010*, issued in *Government Gazette 33872 of 15 December 2010*, I considered internal control relevant to my audit, but not for the purpose of expressing an opinion on the effectiveness of internal control. There are no significant deficiencies in internal control that resulted in a qualification of the auditor's opinion on the financial statements and/or findings on predetermined objectives and/or material non-compliance with laws and regulations.

Auditor General

Pretoria
29 July 2011





Executive Report

Mandate of the Council for Geoscience

The Council for Geoscience is mandated to gather, compile, interpret and disseminate geoscience knowledge for South Africa, as provided for by the Geoscience Act (Act No. 100 of 1993). This mandate includes the following:

- a) The systematic reconnaissance and documentation of the geology of the earth's surface and continental crust, including all offshore areas within the territorial boundaries of South Africa.
- b) The compilation of all geoscience data and information, particularly the geological, geophysical, geochemical and engineering-geological data in the form of maps and documents, which are placed in the public domain.
- c) Basic geoscience research into the nature and origin of rocks, ores, minerals, geological formations, the history and evolution of life and the formation of the earth with a view to understanding the geological processes of both the past and present and to compile and publish such research findings nationally and internationally to contribute to the understanding of the earth, its evolution and its resources.
- d) The collection and curation of all geoscience data and knowledge on South Africa in the National Geoscience Repository. This repository houses a large and growing collection of geoscience information on all the countries of the African continent. This information also includes data that were received from mining companies, universities and research institutions worldwide. Public access to all geoscience information is subject to existing legislation, arranged through the mandate of the Council for Geoscience.
- e) The rendering of geoscience knowledge services and advice to the State to enable informed and scientifically based decisions on the use of the earth's surface and the earth's resources, within the territory of South Africa.
- f) The management of a number of national geoscience facilities on behalf of the country. These include the National Seismograph Network, an Infrasound Observatory, the National Borehole Core Repository, the National Geoscience Museum and the National Geoscience Library.

The Council for Geoscience is in the process of compiling records of sinkholes and subsidences into a database. It will be crucial for future assessments of sinkhole hazards and decision making with respect to development types and foundation designs.

- g) As part of its seismological monitoring function, the Council for Geoscience contributes to the verification of global compliance to the ban on underground, underwater and upper atmospheric nuclear explosions in terms of the Comprehensive Nuclear Test Ban Treaty (CTBT), by making data available from stations located on South African territory.
- h) Provide geoscience data and products to external clients, both nationally and internationally. These services are to be rendered on a full cost-recovery basis.

Legislative and Corporate Governance Requirements

The Council for Geoscience was established in terms of the Geoscience Act (Act No. 100 of 1993). This Act also established the mandate and national responsibilities of the organisation. The Council for Geoscience was listed as a schedule 3A Public Entity in terms of the Public Finance Management Act (Act No. 1 of 1999), as amended by Act No. 29 of 1999.

The Council for Geoscience Amendment Act was approved during late 2010 and signed into power by the President of South Africa in December 2010. The process of preparing for the implementation of the Act has started and involves the development and structuring of the Regulations of the Act. This process will continue during 2011/12.

Overview of Business Operations

During the past year the Council for Geoscience has continued to execute both its statutory and commercial programmes. The management of the national geoscience facilities on behalf of the State is included in the statutory programme. However, the finances of the organisation remained in a precariously balanced position during the course of the financial year. The requests for additional funding for the current financial year, including the MTEF process, were unsuccessful, which forced the organisation to continue to contain costs as per its short-term turnaround strategy. Hence, the strict cost-cutting measures that have been in place since September 2009 continued during the 2010/11 financial year. The suspension of direct costs on the Annual Technical Programme brought many projects to a standstill. Projects consisting of mostly desktop studies formed the core of the Annual Technical Programme during the financial year.

There were some signs during the last quarter of 2010/11 that a recovery in terms of available commercial projects is gradually taking place. The organisation was able to sign at least one significant contract to provide services to Eskom, and followed many other opportunities closely. Several large tenders are due to be submitted during the first quarter of the 2011/12 financial year, marking the upturn in commercial opportunities.

The Council for Geoscience embarked on developing and implementing ISO 9001 during 2008/09, and

the implementation of ISO 17025 for the Council for Geoscience Analytical Laboratory commenced during 2009/10. It is believed that this accreditation will result in improved levels of professionalism, and that the formal recognition of the quality of the services provided by the laboratories will be achieved. The Quality Management System Implementation Awareness Workshops were concluded by the end of September 2010. The documentation of the ISO system showed good progress during the year. Implementation of ISO 17025 in the Analytical Laboratory has reached a stage during which the analytical methods that are routinely used will be validated. Environmental monitoring systems, e.g. the temperature and humidity of the laboratories, temperature of cooling water, cleanliness of the clean water and airflow into the laboratories, are being installed. Both ISO 9001 and 17025 are expected to reach implementation phase during the 2011/12 financial year.

The reduced Annual Technical Programme has made good progress in terms of achieving targets and improving performance. In this regard, the technical performance of the Council for Geoscience for the past year was 97,87 per cent. Some key highlights of the programme follow in the paragraphs below.

Large-scale closure of mining operations since the 1970s within the Witwatersrand mining regions and the subsequent termination of the extraction of underground water from mines have become important national concerns and have resulted in serious environmental consequences, the most notable being acid mine drainage in the case of the gold mines of the Witwatersrand. Given the magnitude and dynamics of the South African mining industry, it must be accepted that the challenges of mine water management cannot be administered by either Government or the mining sector alone. A Team of Experts was appointed to advise the Inter-Ministerial Committee on the issue of acid mine drainage and a final report was submitted to and adopted by Cabinet towards the end of the financial year.

The Council for Geoscience is part of a consortium of 23 African and European partners, known as the African-European Georesources System (AEGOS). This two-and-a-half-year-long collaborative work programme is the preparatory phase needed to design a Pan-African infrastructure for public, interoperable, geology-related data and user-oriented services to foster and strengthen the sustainable use of georesources in Africa. AEGOS aims to safeguard, develop sharing and add value to the data archived by African and European geological surveys and to support further knowledge development on Africa's geology and georesources. This observation system will provide support to many end users. The Council for Geoscience is involved in several work packages.

The Tectonic Map of Africa, an initiative of the Commission for the Geological Map of the World of UNESCO, was printed. This is the second edition of the map at a scale of 1:10 million. The map was officially launched at the Conference of African Geology in January 2011, held at the University of Johannesburg.

Good progress was made during the year with the development of a business case for South Africa to implement a systematic offshore mapping programme. This project is funded by the Department of Science and Technology, with the objective of formulating a business proposal, based on all stakeholder requirements, to assess the benefits of implementing a national offshore mapping programme. Knowledge on the seabed of South Africa is limited and yet the resource potential is considered to be very high, ranging from mineral to energy, food and environmental resources. The business case will investigate the upstream and downstream benefits of such a programme, including its impact on setting up a local marine-surveying industry, which is currently limited.

The Atlas on the geological storage potential of carbon dioxide in South Africa has been completed and was released by the Minister of Energy to the public on 10 September 2010. It explains South

Africa's energy economy, the requirements for the safe storage of carbon dioxide and where South Africa's storage potential lies. While the Atlas is intended for a broad public readership, its twin document, the Technical Report, was released towards the end of the financial year and is intended for a scientific/technical readership. The Technical Report on the geological storage of carbon dioxide in South Africa contains all the scientific observations and data on which the Atlas is based.

The Council for Geoscience curates the South African Minerals Database, a depository of data on mineral occurrences, mineral deposits and mines in South Africa. The objective of the South African Minerals Database project is to capture, store and continually update mineral data on mines, mineral deposits and mineral occurrences within the borders of South Africa and to provide data to users in South Africa and abroad in order to promote the minerals industry of South Africa. The database currently houses about 20 000 mineral records, as well as 6 500 records of derelict and ownerless mines in South Africa.

The Council for Geoscience, together with Eskom and the Department of Mineral Resources, is actively involved in a project to provide technical and financial assistance to junior/BEE miners in order to increase junior/BEE participation in the mainstream coal industry.

A third of the surface area in Gauteng is susceptible to sinkhole formation and subsidences. In excess of 2 400 events have been recorded in the past 60 years, resulting in costly damage to buildings and infrastructure. The Council for Geoscience is in the process of compiling records of sinkholes and subsidences into a database. It will be crucial for future assessments of sinkhole hazards and decision making with respect to development types and foundation designs. In South Africa, dolomite has a notorious reputation for the formation of sinkholes and subsidences. Thousand of people reside and work in the Centurion area specifically, which is underlain by dolomite and where numerous

sinkholes have occurred in the past, causing significant damage. As part of the Council for Geoscience role to assist government authorities, the organisation has been involved in the field of sinkhole risk evaluation since the early 1970s to ensure safe development on dolomite. The local authority, the City of Tshwane Metropolitan Municipality, has been a particular recipient of this assistance.

Strategic Objectives

The Council for Geoscience identified improved strategic outcomes, which are employed in the implementation of the strategy of the organisation. The outcomes are grouped according to the four perspectives of the Corporate Balanced Scorecard, as discussed under the section on Performance Objectives.

The selection of the statutory programme is based on addressing the developmental needs of South Africa, as captured in the Medium Term Strategic Framework of Government for 2009 to 2014. For the purpose of the Council for Geoscience strategy, the developmental needs are grouped according to the following focus areas:

- Economic Growth
- Rural Development and Poverty Eradication
- Increasing Innovation
- Skills Development
- Expediting Transformation
- Development of Africa
- Addressing Stakeholder Needs and Regulatory Requirements.

The objectives of the Council for Geoscience are achieved by continuously improving and enhancing the quality of its geoscience research, products and services. The strategic research priorities of the organisation are based on the following seven scientific and business thrusts:

- **Geoscience mapping:** The systematic gathering and documenting of geoscience informa-

Highlights of Financial Results

	2011 R'000	2010 R'000
Government grant – core funding	136 505	132 677
Grant – earmarked funding	-	-
Government grant recognised	2 666	2 666
Contracting revenue	61 212	62 595
Publication revenue	654	650
Other operating income	9 989	6 642
Total revenue	211 026	205 230
Total expenses	195 707	227 343
Surplus for the year	15 319	(22 113)

tion. This represents the cornerstone of all the other business thrusts.

- **Minerals development:** To do research and systematically gather information on mineral occurrences in the country to stimulate investment in the mining sector.
- **Environmental geoscience and chemical geohazards:** To systematically gather geoscience information and do research in order to advise on the identification, prevention and mitigation of the effects of geohazards on people and the environment.
- **Engineering geoscience and physical geohazards:** To gather and analyse geoscience information to provide advice, in order to reduce the risk to lives and property from the effects of geohazards.
- **Water resources assessment and protection:** To do research and render services for optimising the quality and quantity of groundwater resources to assist in the delivery of water to communities, industry and agriculture.
- **Education and information:** To facilitate the release of geoscience knowledge and information to the public.
- **Energy geoscience:** To contribute towards the energy security of South Africa.

The successful achievement of the above is highly dependent on critical success factors, which are essential for the organisation to achieve long-term sustainable success.

The critical success factors are:

- Adequate and competent scientists
- A happy workforce (high staff morale)
- The transfer of knowledge, skills and expertise to young scientists
- An integrated approach to service delivery
- The retention of experienced scientists
- Appropriate financial backing
- A workable balance between statutory and commercial work
- A structure that supports the strategy of the organisation
- A strategic place/brand within the national priorities framework.

Board of the Council for Geoscience

The Management Board of the Council for Geoscience approves the mission, strategies, goals, operating policies and priorities of the organisation and monitors compliance with the policies and achievements with respect to the scientific, administrative and financial objectives.

The Management Board is appointed by the Minister in accordance with the provisions of Section 4 of the Geoscience Act (Act No. 100 of 1993). Other than the CEO, all the Board Members are non-executive members. The Board Members are continuously and actively involved in, and bring independent counsel and judgement to bear on all Board discussions and decisions. Board Members are fully conversant with their fiduciary duties as are outlined in Section 50 of the PFMA, which, amongst others, requires them to declare their interests when a potential conflict of interest may arise. The Board meets on a quarterly basis, or as required during the course of a financial year.

The Board has the following active Committees:

- Audit and Risk Committee
- Finance Committee
- Technical Committee
- Personnel, Remuneration and Transformation Committee.

The composition of the Board during the 2010/11 financial year was as follows:

Prof P E Ngoepe (Chairperson)

University of Limpopo

Re-appointed on 1 October 2009

Dr T Ramontja

(Chief Executive Officer)

Prof J M Barton Jr

Geological Society of South Africa

Re-appointed on 1 October 2009

Dr D G Clarke

Department of Rural Development and Land Reform

Re-appointed on 1 October 2009

Mr K Hodges

Industrial Development Corporation

Re-appointed on 1 October 2009

Mr M Mabuza

Department of Mineral Resources

Re-appointed on 1 June 2009

Resigned on 28 February 2011

Ms L McCourt

Department of Environmental Affairs

Appointed on 1 August 2009

Ms K R Mthimunye

Bluewaves Consulting Services

Appointed on 1 October 2009

Mr M P Nephumbada

Department of Water Affairs

Appointed on 1 October 2009

Mr M Smith

Chamber of Mines

Re-appointed on 1 October 2009

Alternate Members

Mr W Kleynhans

Industrial Development Corporation

Alternate to Mr K Hodges

Appointed on 1 October 2009

Ms D Mochotlhi

Department of Water Affairs

Alternate to Mr M P Nephumbada

Appointed on 1 October 2009

Ms F N Nzimande

Department of Mineral Resources

Alternate to Mr M Mabuza

Appointed on 1 June 2009

Mr M Riba

Department of Rural Development and Land Reform

Alternate to Dr D G Clarke

Re-appointed on 1 October 2009

Dr C B Smith

Geological Society of South Africa

Alternate to Prof J M Barton Jr

Appointed on 1 October 2009.

BOARD MEETINGS 1 APRIL 2010–31 MARCH 2011

MEMBERS	2010						2011		MEETINGS ATTENDED	MEETINGS NOT ATTENDED
	1 APRIL	27 MAY	29 JULY	26 AUGUST	18 NOVEMBER	14 DECEMBER	4 FEBRUARY	24 FEBRUARY		
Prof P Ngoepe	Present	8	0							
Dr T Ramontja	Present	Present	Present	Apology	Present	Present	Present	Present	7	1
Prof J M Barton Jr	Present	8	0							
Dr D G Clarke	Apology	Present	Apology	Present	Apology	Present	Apology	Present	4	4
Mr K Hodges	Present	8	0							
Mr M Mabuza <i>Resigned on 28 February 2011</i>	Apology	Apology	Present	Apology	Apology	Apology	Apology	Apology	1	7
Ms L McCourt	Present	Present	Present	Present	Apology	Present	Present	Present	7	1
Ms K R Mthimunye	Present	Apology	Present	Present	Present	Apology	Present	Present	6	2
Mr M P Nepfumbada	Present	Apology	1	7						
Mr M Smith	Present	Present	Present	Apology	Present	Present	Apology	Present	6	2
Mr W Kleynhans <i>(Alternate to Mr Hodges)</i>	Present	Main member present	Main member present	Main member present	Main member present	Main member present	Main member present	Main member present	1	0
Ms D Mochotlhi <i>(Alternate to Mr Nefumbada)</i>	Main member present	Apology	Present	Present	Apology	Apology	Apology	Apology	2	5
Ms F N Nzimande <i>(Alternate to Mr Mabuza)</i>	Apology	Apology	Main member present	Apology	Apology	Apology	Present	Apology	1	6
Mr M Riba <i>(Alternate to Dr Clarke)</i>	Apology	Main member present	0	4						
Dr C B Smith <i>(Alternate to Prof Barton)</i>	Main member present	0	0							

Audit and Risk Committee

The Audit and Risk Committee of the Council for Geoscience evaluates the annual internal and external audit plans, the internal and external audit reports and the financial statements. The Audit and Risk Committee also assesses the effectiveness of the internal audit function and the risk mitigation procedures, which are in place.

In addition, the Audit and Risk Committee, from time to time, assesses its mandate and charter in order to deal with emerging risks.

The composition of the Audit and Risk Committee as at 31 March 2011 was:

Mr B Hawksworth

(Chairperson until 27 August 2010 – resigned due to ill health)

Ms N G Jiyane

(Chairperson from 18 November 2010)

Ms S J Mbongo

Ms K R Mthimunye

Mr M P Nepfumbada

AUDIT AND RISK COMMITTEE MEETINGS 1 APRIL 2010–31 MARCH 2011

MEMBERS	2010				2011	Meetings attended	Meetings not attended
	24 May	22 July	12 August	11 November	3 February		
Mr B Hawksworth <i>(Resigned on 27 August 2010)</i>	Present	Apology	Apology	Not a member	Not a member	1	2
Ms N G Jiyane <i>(Appointed on 18 November 2010)</i>	Present	Present	Present	Present	Present	5	0
Ms S J Mbongo	Present	Present	Present	Apology	Apology	3	2
Ms K R Mthimunye	Apology	Present	Present	Present	Present	4	1
Mr M P Nepfumbada	Apology	Present	Present	Apology	Present	3	2
Ms D Mochotlhi <i>(Alternate to Mr Nepfumbada)</i>	Apology	Main member present	Main member present	Apology	Main member present	0	2

Finance Committee

The Finance Committee of the Council for Geoscience deals with a range of corporate financial issues of the organisation, such as the recommendation for the approval of the Budget, the recommendation for major capital expenditure, the writing off of bad debts and assets and any other financial matters as are referred to it by the Board for recommendations.

The composition of the Finance Committee as at 31 March 2011 was:

Ms K R Mthimunye (Chairperson)

Dr D G Clarke

Ms D Mochotlhi

Dr T Ramontja

FINANCE COMMITTEE MEETINGS 1 APRIL 2010–31 MARCH 2011

MEMBERS	2010			2011	Meetings attended	Meetings not attended
	20 May	12 August	11 November	3 February		
Ms K R Mthimunye	Present	Present	Present	Present	4	0
Dr D G Clarke	Present	Present	Apology	Present	3	1
Ms D Mochotlhi	Present	Apology	Present	Apology	2	2
Dr T Ramontja	Present	Present	Present	Present	4	0
Mr M Riba <i>(Alternate to Dr Clarke)</i>	Main member present	Main member present	Apology	Main member present	0	1

Technical Committee

The Technical Committee of the Council for Geoscience deals with the annual scientific and technical programme of the organisation, evaluates the scientific and technical output, oversees the annual technical audit and recommends on such scientific and technical matters as are referred to it by the Board.

The composition of the Technical Committee as at 31 March 2011 was:

Prof J M Barton Jr (Chairperson)

Mr W Kleynhans

Ms P Maruping

Dr T Ramontja

Mr M Smith

TECHNICAL COMMITTEE MEETINGS 1 APRIL 2010–31 MARCH 2011

MEMBERS	2010			2011	Meetings attended	Meetings not attended
	10 June	5 August	11 November	2 February		
Prof J M Barton Jr	Present	Present	Present	Present	4	0
Mr W Kleynhans	Present	Present	Present	Apology	3	1
Ms P Maruping <i>(Appointed on 26 August 2010)</i>	Not a member	Not a member	Present	Present	2	0
Dr T Ramontja	Present	Present	Present	Present	4	0
Mr M Smith	Apology	Present	Apology	Present	2	2
Dr C B Smith <i>(Alternate to Prof Barton)</i>	Main member present	Main member present	Main member present	Main member present	0	0

Personnel, Remuneration and Transformation Committee

The composition of the Personnel, Remuneration and Transformation Committee as at 31 March 2011 was:

The Personnel, Remuneration and Transformation Committee determines the human resources strategies and policies of the Council for Geoscience. The Committee approves the remuneration structure and salary changes in the organisation and evaluates and makes recommendations on the payment of production bonuses. The Committee also decides upon the remuneration of the Executive Management.

Ms L McCourt (Chairperson)

Prof J M Barton Jr

Mr M P Nepfumbada

Dr T Ramontja

PERSONNEL, REMUNERATION AND TRANSFORMATION COMMITTEE MEETINGS 1 APRIL 2010–31 MARCH 2011

MEMBERS	2010		2011	Meetings attended	Meetings not attended
	2 June	20 August	2 February		
Ms L McCourt	Present	Present	Present	3	0
Prof J M Barton Jr	Present	Present	Present	3	0
Mr M P Nepfumbada	Apology	Apology	Present	1	2
Dr T Ramontja	Present	Present	Present	3	0
Ms D Mochotlhi <i>(Alternate to Mr Nepfumbada)</i>	Apology	Apology	Main member present	0	2
Dr C B Smith <i>(Alternate to Prof Barton)</i>	Main member present	Main member present	Main member present	0	0

Financial and Operational Factors

Post-balance-sheet events

No material facts or circumstances have arisen, between the date of the balance sheet and the production of this report, which will affect the financial position of the Council for Geoscience as is reflected in the financial statements.

Losses Incurred or Recovered

Material losses incurred

The Management Board of the Council for Geoscience has developed a Materiality and

Significance Framework for the organisation. The Board has approved that any expenditure in excess of approximately one per cent of the annual operating expenditure budget for 2009/10, which is an amount of R1,100,000, and/or the writing off and disposal of any asset in excess of approximately two per cent of the value of property and equipment as indicated in the annual financial statements of the year 2008/09, which is an amount of R7,700,000 individually or in aggregate, would be deemed material and significant. The Council for Geoscience has thus accepted the above-mentioned threshold figures of materiality for its financial framework.

Performance Objectives

Performance Management Criteria and Performance Targets of the Council for Geoscience

In line with the strategy developed by Management, the organisation has adopted a Balanced Scorecard (BSC) approach to its performance measurement.

A balanced scorecard system, which measures the performance of the organisation at corporate, business unit and individual level was approved and accepted by the Management Board of the Council for Geoscience. The corporate balanced scorecard incorporates the current performance measures into the following evaluation perspectives:

- Stakeholder and customer satisfaction; to drive stakeholder and customer satisfaction by the development of world-class products and services
- Economic growth; to achieve sustainable revenue and profit growth
- Organisational systems; to develop and maintain effective and streamlined processes, using appropriate tools and methodologies
- Scientific excellence and human capital development; to develop a world-class geoscience organisation where people can grow and perform.

Nine strategic objectives have been identified in line with the balanced scorecard framework, and, as such, cover the customer, internal business process, financial, and learning and growth perspectives. The objectives are aligned with the targeted strategic outcomes of the organisation and include:

- a. Market (Stakeholder/Customer) Perspective Objectives
 - To contribute towards South Africa's economic growth and serve stakeholders
- b. Effective Systems Perspective Objectives
 - To develop and implement effective policies and procedures
 - To drive preferential procurement
 - To implement a corporate planning and reporting procedure
- c. Economic and Financial Growth Perspective Objectives
 - To generate revenue
 - To manage overhead efficiency
- d. World-Class People Perspective Objectives
 - To attract and retain a skilled workforce
 - To build a positive organisational culture
 - To reflect and embrace RSA diversity.

Corporate performance targets of the Council for Geoscience

In order to evaluate the corporate performance of the Council for Geoscience, the organisation has developed a range of performance indicators, which cover the entire spectrum of activities within the organisation. The range of performance indicators, together with the performance targets for the period 2010/11, are summarised in the table below.

CORPORATE SCORECARD FOR 2010/11

Market (Stakeholder/Customer) Perspective		To drive stakeholder and customer satisfaction by the development of world-class products and services	
Objectives	Measures	Target 2010/11	Performance 2010/11
To serve our Stakeholders and Customers	- Annual Technical Programme Performance Index	85%	97,87%
	- Percentage Satisfied Customers	80%	89,12%
	- Number of Maps and Publications published	20	42
	- Number of Small-Scale Mining Investigations completed	40	Not applicable ¹
	- Number of Rural Development Projects ²	25	33
	- Number of Regional and African Development Projects ³	20	29

Economic/Financial Growth		To achieve sustainable revenue and profit growth	
Objectives	Measures	Target 2010/11	Performance 2010/11
Generate Revenue	- Total Revenue	R233m	R211m
	- Government Grant	R135m	R136,5m
	- Contract Revenue and Sales	R91m	R61,8m
	- Sundry Income	R6,5m	R12,7m
	- Commercial Surplus	R7m	R15,3m
	- Ratio of Contract Revenue to Total Revenue	39%	29,3%
	- Ratio of External Revenue to Total Revenue	42%	35,3%
Overhead Efficiency	- Number of Large Tenders submitted (>R1m) ⁴	40	29
	- Ratio of Overheads to Total Cost	55%	69,8%
	- Ratio of Personnel Cost to Total Cost	62%	62,8%

Effective Systems (Organisational)		To develop and maintain effective and streamlined processes, using appropriate tools and methodologies	
Objectives	Measures	Target 2010/11	Performance 2010/11
To Develop and Implement Effective Policies and Procedures	- Percentage ISO Implementation in accordance with Reference Report	100%	85%
To Drive Preferential Procurement	- Preferential Procurement as a percentage of Total Procurement	40%	26,82%
To Implement Corporate Planning and Reporting	- Number of Audit Qualifications	0	0

World-Class People Perspective		To develop a world-class geoscience organisation where our people can grow and perform	
Objectives	Measures	Target 2010/11	Performance 2010/11
To Attract and Retain a Skilled Workforce	- Nett Staff Turnover	-7%	-11,6%
	- Number of Staff and Students enrolled for MSc and PhD Degrees ⁵	25	37
	- Number of Papers and Articles published ⁶	30	121
	- Proportion of Researchers to Total Staff	42%	40,07%
	- Percentage Scientific Staff with MSc and PhD Degrees	54%	56,10%
	- Number of Projects with External Collaborators ⁷	52	77
	- Percentage Satisfied Protégées	60%	50,4%
	- Number of Strategic Science Partnerships ⁸	12	30
To Build a Positive Organisational Culture	- Percentage Satisfied Staff Members	60%	61,8%
To Reflect and Embrace RSA Diversity	- Percentage Overall Employment Equity Targets in the Organisation (White-Black)	43:57	39:61
	- Percentage Overall Employment Equity Targets in the Organisation (Male-Female)	55:45	60:40

Notes to the Corporate Scorecard

The following notes clarify instances where the variance between the expected target and observed performance, pertaining to operational measures, exceed 10 per cent:

1. Number of small-scale mining investigations completed

The small-scale mining investigations in its current format were discontinued by the Department of Mineral Resources and may restart again at a later stage.

2. Number of rural development projects

The higher number of rural development projects is directly linked to the strategy of the Council for Geoscience to focus more on rural development and poverty eradication. Over and above the number of rural development projects included in the Annual Technical Programme, there has also been an increase in commercial rural development projects. These projects comprise geological mapping, mineral-occurrence investigations, groundwater studies and structure plans for municipal areas.

3. Number of regional and African development projects

The Council for Geoscience has continued to experience a remarkable success rate on projects in Africa. Many projects in countries such as Algeria, Ghana, Madagascar, Mauritania, Mozambique and Uganda continued in 2010/11 and some of them were also extended in scope. The success of the Council for Geoscience in regional and African development projects is ascribed to the increasing role the organisation is playing regionally and on the continent.

4. Number of large tenders submitted (>R1m)

This is a new measure aimed at increasing the revenue of the organisation. It was thought that by submitting more large tenders for commercial work, the success of securing some of the work will increase, thereby increasing the revenue of the organisation. As there was no baseline to work from at the time of introducing the measure, the target that was eventually set was too ambitious.

5. Number of staff and students enrolled for MSc and PhD degrees

The Council for Geoscience has continued to focus on skills development and attaining higher qualifications for its staff in 2010/11. Further studies are increasingly being promoted and are linked directly, in many instances, to either statutory or commercial projects. The role of the Young Science Forum by way of encouraging the young geoscientists in the organisation to gain further qualifications is also a contributing factor in the increased number of staff enrolling for MSc and PhD degrees.

6. Number of papers and articles published

The increase in the number of papers and articles published is directly linked to the sharp increase in the number of projects with external collaborators, strategic science partnerships and international commercial projects that focus on joint research and skills development. The results from this research were published as papers or as articles of oral presentations given at conferences, workshops, etc.

7. Number of projects with external collaborators

The sharp increase in the number of projects with external collaborators can be linked to the increase in local and international commercial projects, as well as a renewed focus on joint research and skills development. A direct spin-off is the large number of papers and articles published with outside collaborators.

8. Number of strategic science partnerships

This measure is focused at strengthening geoscience research in the organisation by engaging in joint research with universities and other research organisations.

Report of the Audit and Risk Committee

Responsibilities

The Management Board of the Council for Geoscience has the overall responsibility to ensure that the organisation has and maintains effective, efficient and transparent systems of risk management and internal controls. The responsibility to ensure the adequacy and effectiveness of these systems is delegated to the Audit and Risk Committee. The Audit and Risk Committee is an advisory committee of the Board, with an oversight role that is independent and objective.

The Audit and Risk Committee has adopted formal terms of reference, which have been confirmed by the Board through its charter, and is satisfied that it has discharged its duties and responsibilities as set out in the charter. In performing its responsibilities, the Audit and Risk Committee has reviewed the following:

- The functioning of the internal control systems
- The functioning of the internal audit programme
- The risk areas of the entity's operations to be covered in the scope of the internal and external audits
- The reliability and accuracy of the financial information provided to Management and other users
- The accounting or auditing concerns identified as a result of the internal or external audits
- The entity's compliance with legal and regulatory provisions.

Governance

The Board appointed the following members to the Audit and Risk Committee:

Mr B Hawksworth (*Chairperson until 27 August 2010 – resigned due to ill health*)

Ms N G Jiyane (*Chairperson from 18 November 2010*)

Ms S J Mbongo

Ms K R Mthimunye

Mr M P Nepfumbada.

The Audit and Risk Committee met five times during the period under review.

Internal Control Systems

The members of the Audit and Risk Committee believe that the system of internal controls is adequately designed to cover organisational, financial and operational risks. The control system provides reasonable, but not absolute, assurance that the organisation's assets are safeguarded, transactions are authorised and recorded properly, and that material errors and irregularities are either prevented or detected timeously. These controls are monitored throughout the organisation by Management and employees with the necessary segregation of authority and duties.

The Operational Risk Management Committee, which reports to the Audit and Risk Committee on a quarterly basis, continuously evaluates and monitors the effectiveness of all internal control systems in respect of all areas of risk that have been identified.

Having reviewed the effectiveness of the organisation's system of internal controls, and based on detailed reports provided by the internal auditors, the members of the Audit and Risk Committee are not aware of any significant weakness or deficiency in the organisation's system of internal controls.

Internal Auditing

Internal auditing was outsourced during the year under review and provides a supportive role to Management and the Audit and Risk Committee to achieve their objectives by identifying and evaluating significant exposures to risk and contributing to the empowerment of risk management and control systems.

The internal audit function is responsible for independently and objectively evaluating the organisation's system of internal controls at a detailed level and to bring any significant business risks and exposures to the attention of Management and the Audit and Risk Committee through the provision of comprehensive internal audit reports.

Financial Statements

The Audit and Risk Committee has reviewed and discussed the financial statements of the Council for Geoscience for the year ended 31 March 2011 with the Auditor-General and the Accounting Officer. The Audit and Risk Committee has also reviewed the management letter of the Auditor-General and the responses of Management thereto. The members of the Audit and Risk Committee believe that the financial statements comply, in all material respects, to the requirements of the Public Finance Management Act (Act No. 1 of

1999, as amended) and the South African Statements of Generally Recognised Accounting Practices (GRAP). The Audit and Risk Committee agrees that the adoption of the going-concern premise is appropriate in preparing the annual financial statements.

The Audit and Risk Committee, at its meeting held on 22 July 2011, recommended the adoption of the annual financial statements by the Management Board of the Council for Geoscience.

Approved

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right, positioned above a solid horizontal line.

Ms N G Jiyane

Chairperson: Audit and Risk Committee

29 July 2011
Pretoria

Financial Statements

OF THE COUNCIL FOR GEOSCIENCE FOR THE PERIOD ENDED 31 MARCH 2011

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Council for Geoscience

Statement of Financial Position as at 31 March 2011

	Notes	2011 R'000	2010 R'000
Assets			
Non-current assets			
Property and equipment	2	191,613	205,012
Intangible assets	3	5,677	7,179
Current assets		166,546	149,062
Trade and other receivables	5	27,628	56,052
Cash and cash equivalents	6	138,918	93,010
Total assets		363,836	361,253
Net assets and liabilities			
Net assets			
Accumulated surplus		201,243	185,924
Non-current liabilities			
Post-employment benefit liabilities	4	9,326	19,949
Government grant	7	85,674	88,340
Current liabilities		67,593	67,040
Trade and other payables	8	6,815	15,551
Deferred income	9	53,851	45,161
Accruals	10	6,927	6,328
Total net assets and liabilities		363,836	361,253

Council for Geoscience

Statement of Financial Performance for the period ended 31 March 2011

	Notes	2011 R'000	2010 R'000
Revenue	11	201,037	198,588
Cost of contracts	11	(35,191)	(46,585)
Gross surplus		165,846	152,003
Other operating income	11	8,113	4,432
Administrative expenses		(149,329)	(168,246)
Other operating expenses	11	(11,181)	(12,504)
Interest received	12	1,876	2,210
Surplus/(deficit) from operations		15,325	(22,105)
Finance cost	13	(6)	(8)
Net surplus/(deficit) for the year		15,319	(22,113)

Council for Geoscience

Statement of Changes in Net Assets for the period ended 31 March 2011

	Accumulated surplus	Total
Notes	R'000	R'000
Balance at 31 March 2009	208,037	208,037
Net deficit for the period	(22,113)	(22,113)
Balance at 31 March 2010	185,924	185,924
Net surplus for the period	15,319	15,319
Balance at 31 March 2011	<u>201,243</u>	<u>201,243</u>

Council for Geoscience

Cash Flow Statement for the period ended 31 March 2011

	Notes	2011 R'000	2010 R'000
Cash inflow/(outflow) from operating activities		47,891	10,822
Cash receipts from customers		226,795	219,514
Cash paid to suppliers and employees		(180,774)	(210,894)
Cash generated from operations	14	46,021	8,620
Interest received	12	1,876	2,210
Finance cost	13	(6)	(8)
Cash outflow from investing activities		(1,983)	(31,310)
Acquisition of:			
Property and equipment	15.1	(1,907)	(30,687)
Intangible assets	15.2	(87)	(635)
Proceeds on disposal of property and equipment		11	12
Net decrease in cash and cash equivalents		45,908	(20,488)
Cash and cash equivalents at beginning of period	6	93,010	113,498
Cash and cash equivalents at end of period	6	138,918	93,010

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies

1.1 Basis of preparation

Statement of compliance

1. The financial statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practices (GRAP) including any interpretations, guidelines and directives issued by the Accounting Standards Board.
The financial statements have been prepared on a historic cost basis and accounting policies are consistent with prior years.
2. The cash flow statement can only be prepared in accordance with the direct method.
3. Specific information has been presented separately on the statement of financial position such as:
 - (a) receivables from non-exchange transactions, including taxes and transfers;
 - (b) taxes and transfers payable;
 - (c) trade and other payables from non-exchange transactions.
4. The amount and nature of any restrictions on cash balances are required to be disclosed.

Paragraphs 11–15 of GRAP 1 have not been implemented due to the fact that the budget reporting standard has not been developed by the local standard setters and the international standard is not effective for the current financial year. Although the inclusion of budget information would enhance the usefulness of the financial statements, non-disclosure will not affect the objective of the financial statements.

1.2 Revenue recognition

Revenue comprises the revenue from non-exchange transactions recognised as income in the current year, contract income and sales of publications.

1.2.1 Recognition of income

The Council for Geoscience measures revenue at the fair value of the consideration received or receivable. Revenue is recognised only when it is probable that the economic benefits associated with a transaction will flow to the Council for Geoscience, and the amount of revenue and associated costs incurred or to be incurred, can be measured reliably.

1.2.2 Revenue from non-exchange transactions

The Council for Geoscience received grants in the form of assets and baseline allocation from government departments.

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

Revenue from non-exchange transactions is recorded as deferred income when it is received. It is then recognised as income on a systematic basis over the period intended to match this revenue with the related costs. The conditions for the use of each revenue from non-exchange transactions are stated in each contractual agreement. Government refers to government, government agencies and similar bodies whether local, national or international.

1.2.3 Recognition of income from contracts

Revenue from contracts represents the invoiced value of goods supplied by the Council for Geoscience. Income from contracts is recognised by means of progress payments over the duration of the contracts. Income for contracts in progress is recognised when it can be invoiced. When the outcome of a contract can be estimated reliably, revenue is recognised by reference to the stage of completion of the contract activity.

1.3 Interest received

Interest is recognised on a time proportionate basis with reference to the principal amount receivable and the effective interest rate applicable.

1.4 Property and equipment

The cost of an item of fixed assets is recognised as an asset when:

- it is probable that future economic benefits associated with the item will flow to the Council for Geoscience; and
- the cost of the item can be measured reliably.

Costs include costs incurred initially to acquire or construct an item of fixed assets and costs incurred subsequently to add to, replace part of, or service it. If a replacement cost is recognised in the carrying amount of an item of fixed assets, the carrying amount of the replaced part is derecognised.

Fixed assets are carried at cost less accumulated depreciation and any impairment losses.

Day to day expenses incurred on property and equipment are expensed directly to surplus and deficit for the period.

Major maintenance that meets the recognition criteria is capitalised.

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

Depreciation is provided on all fixed assets other than freehold land, to write down the cost, less residual value, by equal installments over their useful lives, as follows:

Land	Not depreciable
Buildings	30 years
Motor vehicles	5–8 years
Equipment	5–7 years
Aircraft and helicopter - Body	10 years
Aircraft and helicopter - Components	Useful hours per Civil Aviation Authority
Boat	10 years
Office furniture	20 years
Computer equipment	8 years
Specialised equipment	15 years

The depreciation charges for each period are recognised in the statement of financial performance, unless included in the carrying amount of another asset.

The useful lives and residual values are reviewed on an annual basis and changes are reflected as change in accounting estimates on a prospective basis.

1.5 Intangible assets

An intangible asset is recognised when:

- it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity; and
- the cost of the asset can be measured reliably.

Capitalised computer software is carried at cost less accumulated amortisation and less accumulated impairment losses. Computer software is tested annually for impairment or changes in estimated future benefits. Amortisation is provided to write down the intangible assets to their residual, on a straight-line basis, being two and five years.

1.6 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in Rands, by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

At each balance sheet date:

- foreign currency monetary items are translated using the closing rate.

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous annual financial statements are recognised in the statement of financial performance in the period in which they arise.

Cash flows arising from transactions in a foreign currency are recorded in Rands by applying to the foreign currency amount the exchange rate between the Rand and the foreign currency at the date of the cash flow.

1.7 Research and development

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally generated intangible asset arising from research and development is recognised as part of intangible assets only if all of the following conditions are met:

- An asset is created that can be identified;
- It is probable that the asset created will generate future economic benefits;
- The development cost of the asset can be measured reliably;
- It is technically feasible to complete the intangible asset so that it will be available for use or sale;
- The ability to use or sell the intangible asset; and
- It is the intention to complete the intangible asset so that it will be available for use or sale.

Where no internally generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred. Internally generated assets are amortised on a straight-line basis over their useful lives.

1.8 Deferred income

Deferred income is recognised using the accrual basis and accounted for in the statement of financial performance in the period in which it satisfies the recognition criteria to be recognised as revenue.

1.9 Retirement benefit costs

Short-term employee benefits

The cost of short-term employee benefits (those payable within 12 months after the service is rendered, such as bonuses, paid vacation leave and sick leave) is recognised in the period in which the service is rendered and is not discounted.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

Council for Geoscience

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

Defined contribution and defined benefit plans

The Council for Geoscience operates both a defined contribution pension and provident fund and a defined benefit plan in respect of post-retirement medical-aid contributions. For the defined benefit plan, the defined benefit obligation and the related current service cost is determined by using the projected unit credit method. The defined benefit plan is subject to an annual actuarial valuation. The qualifying plan asset of this scheme is held and administered by Momentum Group Limited.

The actuarial gains or losses are further limited to the extent that the net cumulative unrecognised actuarial gains or losses (before recognition of that actuarial gain or loss) exceed the unrecognised part of the transactional liability. Payments to defined contribution retirement benefit plans are charged to the statement of financial performance in the year to which they relate.

1.10 Provisions and contingent liabilities

Provisions are recognised when:

- the entity has a present obligation as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made of the obligation.

The amount of a provision is the present value of the expenditure expected to be required to settle the obligation.

1.11 Financial instruments

Initial recognition

The entity classifies financial instruments, or their component parts, on initial recognition as a financial asset, a financial liability or an equity instrument in accordance with the substance of the contractual arrangement.

Financial assets and liabilities are recognised on the entity's statement of financial position when the Council for Geoscience becomes party to the contractual provisions of the instrument.

Financial assets and liabilities are recognised initially at fair value.

Derecognition of financial instruments

The entity derecognises a financial asset only when the contractual rights to the cash flows from the asset expire; or it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

The entity derecognises financial liabilities when, and only when, the entity's obligations are discharged, cancelled or they expire.

Impairment of loans and receivables

Financial assets are assessed for indicators of impairment at each balance sheet date. Financial assets are impaired where there is objective evidence that, as a result of one or more events that occurred after the initial recognition of the financial asset, the estimated future cash flows of the investment have been impacted.

The carrying amount of trade receivables is reduced through the use of an allowance account (bad debt provision). When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in surplus or deficit.

Financial assets carried at amortised cost

Loans and receivables are measured at amortised cost less any impairment losses recognised to reflect irrecoverable amounts. Impairment is determined on a specific basis, whereby each asset is individually evaluated for impairment indicators. Write-offs of these assets are expensed in surplus or deficit.

Cash and cash equivalents

Cash and cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash. Cash and cash equivalents are measured at fair value.

Financial liabilities carried at amortised cost

Trade and other payables are classified as other financial liabilities.

1.12 Operating leases

Leases of assets under which all the risks and rewards of ownership are effectively retained by the lessor are classified as operating leases. Lease payments under an operating lease are recognised as an expense on a straight-line basis over the lease term.

Any contingent rents are expensed in the period they are incurred.

1.13 Impairment

The entity assesses at each balance sheet date whether there is any indication that an asset may be impaired. If there is any indication that an asset may be impaired, the recoverable amount is estimated for the individual asset. The recoverable amount of an asset is the higher of fair value less costs to sell and its value in use.

Council for Geoscience

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

If the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. That reduction is an impairment loss recognised immediately in surplus or deficit.

At each reporting date the entity assesses impairment losses recognised in prior years for continued existence or decreases. If any such indication exists, the recoverable amounts of those assets are estimated. The increase in the carrying amount of an asset attributable to a reversal of an impairment loss does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior periods. A reversal of an impairment loss of assets carried at cost less accumulated depreciation or amortisation is recognised immediately in surplus or deficit.

1.14 Critical accounting estimates and judgements

Provision for bad debts

Past experience indicates a reduced prospect of collecting debts over the age of two years. Debtors balances older than two years are regularly assessed by management and provided for in line with the policy.

Provisions

Provisions were raised and management determined an estimate based on the information available and in line with the policy.

Property and equipment

Management has made certain estimations with regard to the determination of estimated useful lives and residual values of items of property and equipment.

Leases

Management has applied its judgement to classify all lease agreements that the entity is party to as operating leases, as they do not transfer substantially all risks and rewards to the entity. Furthermore, as the operating lease in respect of premises is only for a relatively short period of time, management has made a judgement that it would not be meaningful to classify the lease into separate components for the land and for the buildings for the EVN Africa's current lease, and the agreement will be classified in its entirety as an operating lease.

Notes to the Financial Statements for the period ended 31 March 2011

1 Accounting policies (*continued*)

1.15 Sources of estimation uncertainty

There are no key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date that could have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year.

2 Property and equipment

2011	Land	Buildings	Equipment	Office furniture	Aircraft and boat	Motor vehicles	Computer equipment	Total
	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000
Gross carrying amount	18,231	135,685	105,356	2,054	19,255	13,766	19,089	313,436
Accumulated depreciation at the beginning of the period	-	(17,046)	(62,968)	(335)	(6,941)	(6,579)	(13,926)	(107,795)
Accumulated impairment at the beginning of the period	-	(629)	-	-	-	-	-	(629)
Opening net carrying amount at 31 March 2010	18,231	118,010	42,388	1,719	12,314	7,187	5,163	205,012
Movements during the period:								
Acquisitions	-	1,078	578	6	-	-	266	1,928
Disposals	-	(1,415)	(28)	-	-	(154)	(17)	(1,614)
Depreciation	-	(4,673)	(6,104)	(96)	(369)	(1,156)	(1,315)	(13,713)
Closing net carrying amount at 31 March 2011	18,231	113,000	36,834	1,629	11,945	5,877	4,097	191,613
Gross carrying amount	18,231	135,348	105,487	2,045	19,255	12,383	19,003	311,752
Accumulated depreciation	-	(21,719)	(68,653)	(416)	(7,310)	(6,506)	(14,906)	(119,510)
Accumulated impairment	-	(629)	-	-	-	-	-	(629)

Council for Geoscience

Notes to the Financial Statements for the period ended 31 March 2011

2 Property and equipment (*continued*)

2010	Land	Buildings	Equipment	Office furniture	Aircraft and boat	Motor vehicles	Computer equipment	Total
	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000
Gross carrying amount	18,231	115,848	98,942	2,018	18,874	10,962	18,574	283,449
Accumulated depreciation at the beginning of the period	-	(13,109)	(57,608)	(240)	(5,920)	(5,971)	(12,589)	(95,437)
Accumulated impairment at the beginning of the period	-	(629)	-	-	-	-	-	(629)
Opening net carrying amount at 31 March 2009	18,231	102,110	41,334	1,778	12,954	4,991	5,985	187,383
Movements during the period:								
Acquisitions	-	19,837	6,544	36	792	2,957	521	30,687
Disposals	-	-	(13)	-	(341)	(16)	-	(370)
Depreciation	-	(3,937)	(5,477)	(95)	(1,091)	(745)	(1,343)	(12,688)
Closing net carrying amount at 31 March 2010	18,231	118,010	42,388	1,719	12,314	7,187	5,163	205,012
Gross carrying amount	18,231	135,685	105,356	2,054	19,255	13,766	19,089	313,436
Accumulated depreciation	-	(17,046)	(62,968)	(335)	(6,941)	(6,579)	(13,926)	(107,795)
Accumulated impairment	-	(629)	-	-	-	-	-	(629)

The transfer of the following land and buildings as stipulated under section 26 of the Geoscience Act (Act No. 100 of 1993) has not yet been completed.

Location	Fair value
474 Carl Street, Town Lands 351JR, Pretoria West	R 2,800,000
Portion of stand 110, 21 Schoeman Street, Polokwane	R 350,000

The fair value (deemed cost at initial recognition) of these properties has been included in the carrying amount of land and buildings as at 31 March 2011.

Details regarding land and buildings are kept at the Council for Geoscience head office and will be supplied upon written request.

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'000

3 Intangible assets

Computer software

Gross carrying amount	14,200	13,565
Accumulated amortisation	(7,021)	(5,476)
Opening net carrying amount at 31 March	7,179	8,089
Movements during the period:		
Acquisitions	87	635
Disposals	(100)	-
Amortisation	(1,585)	(1,545)
Closing net carrying amount at 31 March	5,677	7,179
Gross carrying amount	14,187	14,200
Accumulated amortisation	(8,510)	(7,021)

4 Retirement benefit

4.1 Post-retirement medical-aid fund

The Council for Geoscience has made provision for the medical-aid fund covering substantially all its employees. All eligible employees are members of the defined benefit scheme. To improve management of this defined benefit scheme the Council for Geoscience established a qualifying plan asset in October 2010 which is held and administered by Momentum Group Limited.

The amount recognised in the statement of financial performance is determined as follows:

Current service costs	224	468
Interest charge	1,552	1,457
Expected return on planned assets	(86)	-
Actuarial (gain)/loss recognised	39	(472)
	<u>1,729</u>	<u>1,453</u>

The amount included in the statement of financial position arising from Council for Geoscience obligation in respect of PRMC is as follows:

Present value of fund obligations	19,775	16,673
Fair value of planned assets	(10,449)	-
Unrecognised actuarial loss	-	3,276
Liability recognised in statement of financial position	<u>9,326</u>	<u>19,949</u>

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'0004 Retirement benefit (*continued*)

Movement in net liability during the period is as follows:	2011				2010			
	Liability	Planned asset	Unrecognised actuarial gain	Net	Liability	Planned asset	Unrecognised actuarial (loss)/gain	Net
Liability at beginning of period	16,673	-	-	16,673	16,794	-	-	16,794
Value of planned assets at beginning of period	-	(11,303)	-	(11,303)	-	-	-	-
Value of unrecognised actuarial gain/(loss) at beginning of period	-	-	3,276	3,276	-	-	2,044	2,044
Interest charge/expected return of planned asset	1,552	(86)	-	1,466	1,457	-	-	1,457
Current service costs	224	-	-	224	468	-	-	468
Benefits paid	(875)	517	-	(358)	(814)	-	-	(814)
Actuarial loss/(gain)	2,201	423	(3,276)	(652)	(1,232)	-	1,232	1,232
Closing balance	19,775	(10,449)	-	9,326	16,673	-	3,276	19,949

4.2 Pension and Provident fund benefits

The Council for Geoscience and its employees contribute to a defined contribution plan. The assets of the scheme are held separately from the Council for Geoscience in funds under the control of trustees. The total cost charged to income of R6,375,877 (2010: R6,496,718) represents equal contributions of 7.5% by the employer and employee.

5 Trade and other receivables

Trade receivables	30,096	26,581
Trade receivables - Retention	83	7,801
Contract customers	(1,740)	21,214
Other receivables	260	275
Prepaid expenses	56	168
Personnel debt	61	70
	<u>28,816</u>	<u>56,109</u>
Less - Provision for bad debts	(1,188)	(57)
	<u>27,628</u>	<u>56,052</u>
Provision for bad debts		
Opening balance	57	805
Movement	1,131	(748)

Notes to the Financial Statements for the period ended 31 March 2011

	2011 R'000	2010 R'000
5 Trade and other receivables (continued)		
Closing balance	1,188	57
Average ageing	3.6 years	4.5 years

Fair value of trade and other receivables

Fair values of trade and other receivables are determined at a price charged at transaction date and impaired when indicators of impairment are present. At period end there were no differences between the book value and the fair values of trade and other receivables because of the short-term maturity.

6 Cash and cash equivalents

Cash and cash equivalents at the end of the period are represented by the following balances:

Cash at bank	51,580	22,415
Call accounts	87,338	70,595

Cash and cash equivalents at the end of the period are represented by the following balances:

	138,918	93,010
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There is no difference between the fair value of cash and cash equivalents and their book value.

7 Revenue from non-exchange transactions

Carrying amount at the beginning of period	88,340	91,006
Recognised as income	(2,666)	(2,666)
Carrying amount at the end of period	85,674	88,340

8 Trade and other payables

Trade payables	2,672	4,735
Other payables	4,143	10,753
Medical-aid employee fund	-	63
	6,815	15,551

Fair value of financial instruments

Fair values of trade and other payables are determined at a price charged at transaction date and impaired when indicators of impairment are present. At period end there were no differences between the book value and the fair values of trade and other payables.

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'000

9 Deferred income

Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources to develop and implement various measures to mitigate the effect of mining-induced contamination of the groundwater in the Witwatersrand area A.

Carrying amount at the beginning of period	933	882
Interest earned	40	51
Carrying amount at the end of period	973	933

Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources to develop and implement various measures to mitigate the effect of mining-induced contamination of the groundwater in the Witwatersrand area B.

Amounts received	32,671	-
Interest earned	73	-
Carrying amount at the end of period	32,744	-

Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources to develop and implement the closing of mine holes.

Carrying amount at the beginning of period	2,833	6,281
Amounts used during the period	(1,245)	(3,743)
Interest earned	94	295
Carrying amount at the end of period	1,682	2,833

Deferred income arising as a result of a contract entered into with the European Commission for Earth Observation for Monitoring and Observing Environmental and Societal Impacts of Mineral Resources Exploration and Exploitation.

Amounts received	808	-
Amounts used during the period	(148)	-
Carrying amount at the end of period	660	-

Deferred income arising as a result of an agreement with the Department of Mineral Resources in terms of the Sustainable Development Through Mining project.

Carrying amount at the beginning of period	792	1,716
Amounts used during the period	-	(1,023)
Interest earned	34	99
Carrying amount at the end of period	826	792

Notes to the Financial Statements for the period ended 31 March 2011

	2011 R'000	2010 R'000
9 Deferred income (<i>continued</i>)		
Deferred income arising as a result of an agreement with the Department of Science and Technology in terms of a Scoping Study for a National Mineral Resources Assessment.		
Carrying amount at the beginning of period	1,038	1,750
Amounts received	-	1,000
Amounts used during the period	(577)	(1,788)
Interest earned	37	76
Carrying amount at the end of period	498	1,038
Deferred income arising as a result of an agreement with the Department of Cooperative Governance and Traditional Affairs for establishing a South Africa Tsunami Early Warning System.		
Carrying amount at the beginning of period	192	539
Amounts used during the period	(21)	(347)
Carrying amount at the end of period	171	192
Deferred income arising as a result of an agreement with the Department of Science and Technology in terms of the Earth Observation and Geohazards Assessment.		
Amounts received	3,477	-
Amounts used during the period	(2,495)	-
Carrying amount at the end of period	982	-
Deferred income arising as a result of an agreement with the Bureau of Research Geology and Mines and the 7th European Framework Programme for the sustainable use of resources of geological origin.		
Carrying amount at the beginning of period	587	730
Amounts used during the period	(587)	(730)
Amounts received	-	587
	-	587
Deferred income arising as a result of an agreement with the Department of Science and Technology to study the Witwatersrand Central Basin Mine Water Apportionment.		
Carrying amount at the beginning of period	1,386	1,386
Carrying amount at the end of period	1,386	1,386

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'0009 Deferred income (*continued*)

Deferred income arising as a result of an agreement entered into with the Department of Mineral Resources to develop and implement various measures to mitigate the effect of mining-induced contamination of the groundwater in the Witwatersrand area B.

Carrying amount at the beginning of period	36,286	34,372
Amounts received	-	17,600
Amounts used during the period	(23,615)	(17,406)
Interest earned	963	1,720
Carrying amount at the end of period	13,634	36,286

Deferred income arising as a result of an agreement with the Department of Science and Technology to establish an international collaboration research project on the Karoo sequences in South Africa, Botswana and Namibia.

Carrying amount at the beginning of period	10	364
Amounts used during the period	(10)	(354)
Carrying amount at the end of period	-	10

Deferred income arising as a result of an agreement entered into with the National Research Foundation.

Carrying amount at the beginning of period	55	55
Carrying amount at the end of period	55	55

Deferred income arising as a result of pre-funding for the Uganda Project.

Carrying amount at the beginning of period	1,049	1,049
Amounts used during the period	(809)	-
Carrying amount at the end of period	240	1,049
	53,851	45,161

10 Accruals

Accruals for leave pay

Carrying amount at the beginning of period	6,328	6,776
Provision current period	1,308	(98)
Amounts used during the current period	(709)	(350)
Carrying amount at the end of period	6,927	6,328

The leave pay provision relates to the estimated liabilities as a result of leave days due to employees.

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'000

11 Deficit/surplus from operations

Operating deficit/surplus is arrived at after taking the following items into account:

Revenue

Government grant - core funding	136,505	132,677
Government grant recognised	2,666	2,666
Contracting revenue	61,212	62,595
Publication revenue	654	650
	<u>201,037</u>	<u>198,588</u>

Cost of contracts

Direct cost	21,817	29,225
Personnel expenditure	13,374	17,360
	<u>35,191</u>	<u>46,585</u>

Other operating income

Foreign currency gains	5,767	1,718
Profit on disposal of fixed assets	11	12
Sundry income	2,335	2,702
	<u>8,113</u>	<u>4,432</u>

Administrative expenses include -

Audit remuneration	1,514	1,845
Audit fees		
- Current period	538	501
- Prior period	698	873
- Internal audit	278	310
- Fee for other services	-	161
Bad debts written off	-	710
Provision for bad debts	1,131	(748)
Depreciation - on owned assets	13,713	12,688
- Buildings	4,673	3,937
- Equipment	6,104	5,477
- Office furniture	96	95
- Motor vehicles	1,156	745
- Aircraft	369	1,091
- Computer equipment	1,315	1,343

Council for Geoscience

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'00011 Deficit/surplus from operations (*continued*)

Amortisation - intangible assets

- Computer software

1,585

1,545

Rentals in respect of operating leases

- Land and buildings

416

1,500

- Photocopying machines

2,422

2,422

Other operating expenses

Net loss on disposal of equipment

1,598

369

Foreign currency losses

9,583

12,135

11,181

12,504

Staff costs

122,813

130,846

Included in staff costs are:

Defined benefit plan expense for the post-retirement medical-aid fund

1,729

1,453

Current service cost

224

468

Interest cost

1,552

1,457

Expected return on plan assets

(86)

-

Recognised actuarial loss

39

(472)

- Defined contribution plan expenses for the pension and provident fund

6,376

6,497

Emoluments

2010/2011

Senior management	Pensionable	Provident fund	Other	Total
	salary	contributions	contributions	
	R	R	R	R
Ramontja T	1,581,942	102,498	164,047	1,848,487
Matsepe L D	885,102	57,348	92,128	1,034,578
Ramagwede L F	1,090,603	70,902	104,556	1,266,061
Graham G	1,040,379	67,409	109,217	1,217,005
Zawada P K	1,022,831	76,139	118,915	1,217,885

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'00011 Deficit/surplus from operations (*continued*)

Senior management	2009/2010			Total
	Pensionable salary	Provident fund contributions	Other contributions	
	R	R	R	R
Ramontja T	1,442,866	97,617	254,628	1,795,111
Matsepe L D	911,561	54,617	39,070	1,005,248
Ramagwede L F	854,513	64,199	204,432	1,123,144
Graham G	854,513	64,199	259,372	1,178,084
Zawada P K	854,516	64,892	255,846	1,175,254

Management Board Member - T. Ramontja

Management Board emoluments**Non-executive Board Members**

Ngoepe P E	81,178	129,839
Nkuna A P	-	52,253
Barton J M (Jr)	77,683	71,278
Hieber R W	-	37,447
Smith M	47,826	14,176
Mthimunye K R	81,547	21,609
	288,234	326,602

Details regarding Management Board Members service contracts:

Management Board Members representing government departments are not included above as they received no emoluments.

The current term of office of the non-executive Management Board Members expires on 30 September 2012.

12 Interest received

Interest received

- Interest income on call accounts	1,304	1,911
- Interest income on current accounts	572	299
	1,876	2,210

13 Finance cost

Interest	6	8
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Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'000**14 Reconciliation of net surplus for the period to cash generated from operations**

Net (deficit)/surplus for the period	15,319	(22,113)
Adjustments for -		
Interest	6	8
Depreciation on property and equipment	13,713	12,688
Amortisation - intangible assets	1,585	1,545
Government grant recognised	(2,666)	(2,666)
(Net proceeds) on disposal of fixed assets	(11)	(12)
Net loss on disposal of fixed assets	1,598	369
Increase in provision for bad debts	1,131	(748)
Interest earned	(1,876)	(2,210)
Provision for post-retirement medical-aid benefits	(10,624)	1,112
Operating cash flows before working capital changes	18,175	(12,027)
Working capital changes -		
Decrease/(increase) in provision for accumulated leave pay	599	(448)
Decrease in trade and other receivables	27,293	24,340
(Decrease) in trade and other payables	(8,736)	(171)
(Decrease) in deferred income	8,690	(3,074)
Cash generated from operations	46,021	8,620

15 Acquisition of:

15.1 Property and equipment

Land and buildings	1,078	19,837
Equipment	557	6,544
Office furniture	6	36
Aircraft and boat	-	792
Motor vehicles	-	2,957
Computer equipment	266	521
	1,907	30,687

15.2 Intangible assets

Computer software	87	635
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Notes to the Financial Statements for the period ended 31 March 2011

		2011 R'000	2010 R'000															
16	Contingent liability																	
16.1	Bank guarantees																	
	Performance bonds and bid bonds issued for contract work to various financial institutions	508	4,717															
16.2	Litigation																	
	<table border="0"> <thead> <tr> <th style="text-align: left;">Citation of parties</th> <th style="text-align: left;">Description</th> <th style="text-align: left;">Status of the matter</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>CGS/Employee</td> <td>Labour Court claim in which the claimant seeks promotion.</td> <td>The matter has been enrolled for the hearing at the High Court and was postponed <i>sine die</i>.</td> <td style="text-align: right;">1,000</td> <td style="text-align: right;">1,000</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;"><u>1,508</u></td> <td style="text-align: right;"><u>5,717</u></td> </tr> </tbody> </table>	Citation of parties	Description	Status of the matter			CGS/Employee	Labour Court claim in which the claimant seeks promotion.	The matter has been enrolled for the hearing at the High Court and was postponed <i>sine die</i> .	1,000	1,000				<u>1,508</u>	<u>5,717</u>		
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			<u>1,508</u>	<u>5,717</u>														

17 Taxation

No provision for income tax was made as the Council for Geoscience is exempted in terms of section 10(1)(Ca)(i) of the Income Tax Act.

18 Operating lease commitments

18.1 EVN Africa

At reporting date, the outstanding commitments under non-cancellable operating leases, which fall due are as follows:

Up to 1 year	380	328
Total lease commitments	<u>380</u>	<u>328</u>

The Council for Geoscience is leasing office premises from EVN Africa for a period of 1 year with an extension option, effective from 1 April 2011 for average lease payments of R31,692 (VAT inclusive) per month.

18.2 Xerox/Bytes Technology

At the reporting date, the outstanding commitments under non-cancellable operating leases, which fall due are as follows:

Up to 1 year	1,407	1,535
2 to 5 years	-	1,407
Total lease commitments	<u>1,407</u>	<u>2,942</u>

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'00018 Operating lease commitments (*continued*)**Contingent rentals are determined as follows:**

Black and white prints/images made in excess of 100,000 per month are charged at R0,09 and colour prints/images made in excess of 30,000 per month are charged at R0,62 (VAT inclusive) per copy.

All prints/images below 100,000 and 30,000 for black and white and colour respectively are included in the fixed monthly rental of R117,250 (2010/11) and R112,234 (2009/10).

19 Financial instruments

Financial instruments consist of cash and cash equivalents, investments with financial institutions, trade and other receivables and trade and other payables.

19.1 Credit risk

Financial assets, which potentially subject the Council for Geoscience to concentrations of credit risk, consist principally of cash, short-term deposits and trade receivables. The Council for Geoscience's cash equivalents and short-term deposits are placed with high credit quality financial institutions. Trade receivables are presented net of the allowance for doubtful debts. Credit risk with respect to trade receivables is limited due to the large number of customers being dispersed across different industries and geographical areas. Accordingly the Council for Geoscience has no significant concentration of credit risk.

The carrying amounts of financial assets included in the statement of financial position represent the Council for Geoscience's exposure to credit risk in relation to those assets.

Trade and other receivables are controlled by well-established policies and procedures which are reviewed and updated on an ongoing basis. The Council for Geoscience does not have any significant exposure to any individual customer or counterparty.

19.2 Interest rate risk

The organisation's exposure to interest rate risk and the effective interest rates on the financial instruments at reporting date are: 31 March 2011

	Weighted average effective interest rate %	Weighted average effective interest rate %
Assets		
Cash	4.20%	5.62%
Call accounts	6.06%	7.79%

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'00019 Financial instruments (*continued*)**Investments**

The risk is perceived to be low due to the following factors:

- Funds are only invested with approved financial institutions according to the policy of the Council for Geoscience, as was approved by the Management Board.
- Investments are only reinvested or invested with Executive Management approval.

19.3 Foreign currency risk

The Council for Geoscience undertakes certain transactions denominated in foreign currencies, hence exposures to exchange rate fluctuations arise. It is not policy for the Council for Geoscience to take out cover on these outstanding foreign currency transactions due to the fact that these transactions take place on an ad-hoc basis. The Council for Geoscience exposure at 31 March 2011 is disclosed in note 21.

19.4 Airborne operations risk

Risk in respect of the airborne operations of the Council for Geoscience has been identified and transferred to third parties, namely insurance and an external operator.

20 Capital commitments

Commitments for the alterations of property and equipment

- Approved and contracted for	-	9,000
ERP System	-	9,000

The commitments will be funded from internal resources.

21 Foreign currency exposure

21.1 Trade receivables

	2011 R'000			2010 R'000		
	Exchange rate	Foreign amount	R-value	Exchange rate	Foreign amount	R-value
Foreign currency						
Ghanian Cedi	R 0.00000	¢ 0	R 0	R 5.28200	¢ 53	R 279
Madagascan Ariary	R 0.00340	Ar 4,371	R 18	R 0.00342	Ar 4,371	R 15
Euro	R 9.40950	€ 246	R 2,319	R 9.91300	€ 1,761	R 17,453
US\$	R 6.62720	\$ 458	R 3,033	R 7.39260	\$ 569	R 4,208

Council for Geoscience

Notes to the Financial Statements for the period ended 31 March 2011

2011
R'0002010
R'00021 Foreign currency exposure (*continued*)

21.2 Banks	2011 R'000			2010 R'000		
	Exchange rate	Foreign amount	R-value	Exchange rate	Foreign amount	R-value
Foreign funds						
Ghanian Cedi	R 3.78644	¢ 125	R 472	R 5.28200	¢ 48	R 254
Madagascan Ariary	R 0.00340	Ar 491	R 2	R 0.00342	Ar 638	R 2
Moroccan Dirham	R 0.84602	DH 7,098	R 6,005	R 0.89470	DH 7,527	R 6,740
Euro	R 9.40950	€ 3,287	R 30,927	R 9.91300	€ 1,272	R 12,610

22 Related-party transactions

During the period, the following related-party transactions took place between the Council for Geoscience and the Department of Mineral Resources:

Sales of goods and services	17,131	25,951
Deferred income	<u>49,859</u>	<u>40,843</u>

During the period, the following related-party transactions took place between the Council for Geoscience and the Department of Science and Technology:

Sales of goods and services	4,159	354
Deferred income	<u>2,866</u>	<u>1,048</u>

Refer to note 9 for further details regarding deferred income transactions.

The Council for Geoscience offers geoscience services to government departments.

Government grants		
Revenue	<u>136,505</u>	<u>132,677</u>

Emoluments are also related-party transactions, refer to note 11.

Notes to the Financial Statements for the period ended 31 March 2011

	2011 R'000	2010 R'000
23 Reconciliation between budget and statement of financial performance		
Net surplus/deficit per the statement of financial performance	15,319	(22,113)
Adjusted for:		
Revenue	26,417	40,898
Operating income	1,618	1,576
Interest paid	2	-
Surplus on the sale of assets	660	369
Decreases in provisions	1,130	(748)
Bad debts	-	710
Foreign exchange	3,815	10,417
Depreciation	1,010	204
Personnel expenditure	(19,196)	(1,764)
Direct projects costs - Commercial Local	(20,054)	(13,758)
Direct projects costs - Commercial Foreign	944	(6,519)
Direct projects costs - Statutory	(1,089)	(8,089)
Overheads	(9,432)	(1,183)
Net surplus/deficit per approved budget	<u>1,144</u>	<u>-</u>

24 Fruitless and wasteful expenditure**Fruitless and wasteful expenditure**

Fruitless and wasteful expenditure	-	2,957
	<u>-</u>	<u>2,957</u>

Council for Geoscience

Unaudited Schedule of Value Added Statement for the period ended 31 March 2011

	2011 R'000	% Value added	2010 R'000	% Value added
Value added				
Government grant	136,505	89.8%	132,677	111.3%
Government grant recognised	2,666	1.8%	2,666	2.2%
Contracting revenue	61,212	40.3%	62,595	52.5%
Publication revenue	654	0.3%	650	0.5%
Revenue	201,037	132.2%	198,588	166.5%
Paid to suppliers for material and services	(58,963)	(38.8%)	(85,979)	(72.1%)
Interest earned	1,876	1.2%	2,210	1.9%
Other income	8,113	5.3%	4,432	3.7%
	152,063	100.0%	119,251	100.0%

		% Distributed		% Distributed
Distributed as follows -				
Employees	119,682	78.7%	125,254	105.0%
- Staff costs	108,359	71.2%	110,846	93.0%
- Employer contributions	9,636	6.3%	11,264	9.4%
- Bursary and training	1,687	1.1%	3,144	2.6%
Finance cost	6	-	8	-
Central and local government	1,808	1.2%	1,869	1.6%
Retention for expansion and growth	30,617	20.1%	(7,880)	(6.6%)
- Depreciation	13,713	9.0%	12,688	10.6%
- Amortisation	1,585	1.0%	1,545	1.3%
- Impairment	-	0.0%	-	0.0%
- Retained (deficit)/surplus for the period	15,319	10.0%	(22,113)	(18.5%)
	152,113	100.0%	119,251	100.0%

Value added ratios

- Number of employees	335	349
- Revenue per employee	R 600	R 569
- Wealth created per employee	R 454	R 342



Highlights

OF ACTIVITIES OF THE COUNCIL FOR GEOSCIENCE

Africa Collaboration

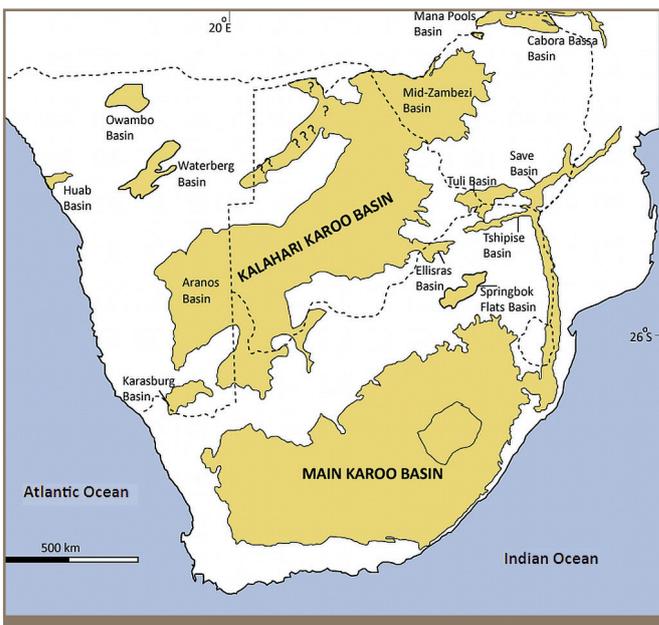
Tri-Nations Karoo Basin Correlation Project

Rocks analogous to the Karoo rocks of South Africa occur in several basins in southern Africa and contain the coal reserves of the regions. The Tri-Nations Karoo Basin Correlation Project investigated the

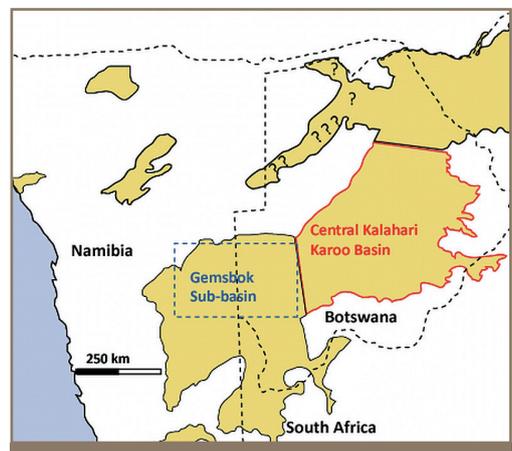
Karoo-age sedimentary rocks found within South Africa, Botswana and Namibia.

The project focused on the Kalahari Karoo Basin, which extends from southeast Namibia, through the central part of Botswana and parts of South Africa, up to the western region of Zimbabwe. The sedimentary and volcanic rocks that fill this basin

The Karoo-age basins in southern Africa were studied by scientists of South Africa, Namibia and Botswana.



Location of the central Kalahari Karoo Basin and the Gemsbok Sub-basin.



The Atlas on the geological storage potential of carbon dioxide in South Africa explains South Africa's energy economy, the requirements for the safe storage of carbon dioxide and where South Africa's storage potential lies.

show many similarities to the sequences documented in the Karoo Basin of central South Africa.

This project investigated the distribution of mineral resources, especially coal, within the region, as well as the tectonic and environmental mechanisms that control the distribution of these resources. The Tri-Nations Project aimed to strengthen collaboration and scientific ties between South Africa, Botswana and Namibia and support capacity building and skills transfer through the training of young scientists.

Two young scientists of Botswana and South Africa completed their MSc degrees on research projects that formed part of the Tri-Nations Project. The geological framework and depositional environments of the coal-bearing Karoo strata in the central Kalahari Karoo Basin, Botswana, were investigated in the first project, including the geological history and influence of the depositional and post-depositional processes on the lateral and vertical distribution of coal seams of the Karoo Supergroup. The second project focused on the stratigraphy and basin modelling of the Gemsbok Sub-basin of the Karoo Supergroup in Botswana and Namibia, involving the careful investigation and meticulous description of sedimentary, trace fossil, petrographic and geochemical observations of the Karoo Supergroup rocks in borehole core samples. The Karoo succession has been subdivided into facies associations which were interpreted in terms of sedimentary processes, depositional environments and source areas.

The Tri-Nations Project is now concluded, although additional scientific publications are expected to culminate from this project.

Geological Mapping and Research Supporting Oil Exploration in Madagascar

The Council for Geoscience provided mapping, logistics and fieldwork management expertise to an oil exploration project in southwest Madagascar. The main aim of the project was to determine the principal geological factors influencing the potential petroleum system in a 20 x 200 km area, in a region known for hosting bituminous oil seeps.

Following a modern remote-sensing analysis and a four-month field-mapping and sampling season, the Council for Geoscience team produced new detailed geological maps, a geological explanation,

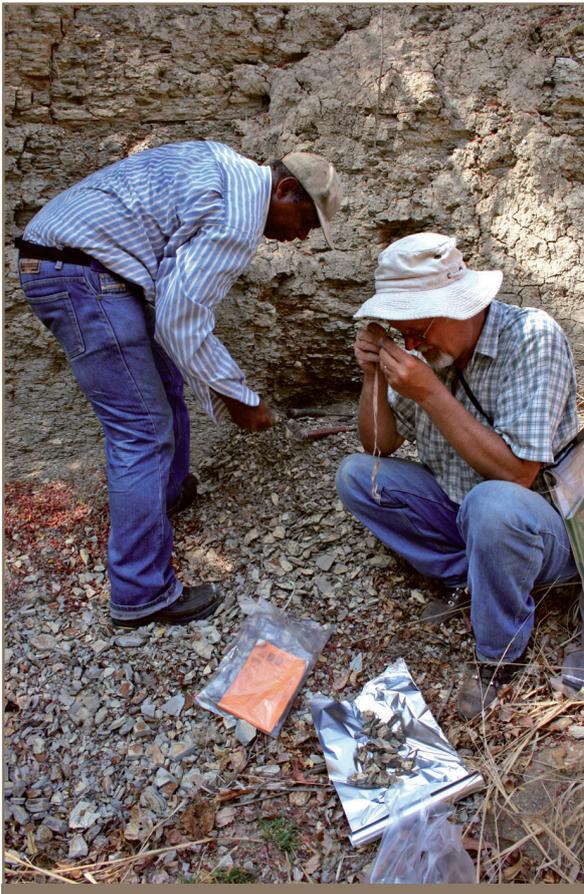
The fossilised remains of a Late Permian aquatic reptile *Barasaurus* from Madagascar.



13 structural cross-sections, 20 stratigraphic profiles, proposed a modified lithostratigraphic subdivision for the region and provided palaeo-environmental models for the origins of the sedimentary rocks. Samples collected during the fieldwork were analysed with a range of methods, including palynology and palaeontology, as well as organic chemistry, apatite geochronology and geophysical characterisation. The new field and analytical data have been used to identify and characterise the potential source, reservoir and seal rocks to model the petroleum system.

The project provided valuable skills transfer to the young South African and Madagascan geologists involved and also allowed the Council for Geoscience to strengthen its ties with Madagascan geoscience institutes.

South African and Madagascan geologists studying and sampling potential source rocks in the field.



AEGOS — African-European Georesources Observation System

Research organisations from 23 countries in Europe and Africa, including South Africa, are participating in a project of the European Seventh Framework Programme, aimed at designing a Pan-African infrastructure of interoperable geological data and user-oriented services to support the sustainable use of georesources in Africa.

A recognised need has emerged for a shared, distributed, internet-linked georesources observation system, capable of hosting data and metadata and providing access to the geological infrastructure of Africa, including minerals, energy, groundwater and raw materials.

The project will be implemented in three phases:

Phase 1:

The design phase commenced in 2009 and will end in December 2011. The purpose of this phase is to identify the needs and requirements in term of end users, infrastructure, capacity building and architecture and to establish support from overarching organisations.

Phase 2:

This phase will constitute the implementation of the systems. In this phase the framework will be set up and the infrastructure will be put in place to ensure the sustainability of the operations.

Phase 3:

The final phase will include the Sustainable Operation Phase, when all systems will be fully operational.

International Collaboration

EO-MINERS — Earth Observation for Monitoring and Observing Environmental and Societal Impacts of Mineral Resources Exploration and Exploitation

The main focus of this project, sponsored by the European Commission under the Seventh Framework

Programme, is to address the sustainable development of the extractive industry and the reduction of the environmental footprint. The aim of the project is to use current knowledge and data, along with existing and new technological and scientific earth-observation-based methods and tools, to monitor mineral resources exploration and mining from concept to closure, and to observe, monitor and provide information to manage the impacts on the environment and society. Importantly, the project will initiate a sound dialogue of industry, government and civil society. Outputs and findings will provide this dialogue with the ability to make reliable, objective and informative decisions when balancing the social and economic benefits of minerals supply with the impacts on society and the environment.

The project allows scientists of the Council for Geoscience as members of an experienced international team, gaining experience on a number of sites worldwide, including one in South Africa, and to apply this experience in South Africa. Given the impacts of coal mining in the study area in Mpumalanga, it is hoped that this project will provide some of the information necessary to improve management of the environment in the area.

Cooperation between Italy and South Africa

The Council for Geoscience is participating in an Induced Polarisation (IP) research project with Italian collaborators. The project, funded by the National Research Foundation, aims to develop IP techniques, as well as the skills of young scientists. The project is nearing completion, with modelling and research being performed on resistivity, Direct Current (DC), IP and Time Domain Electromagnetic (TDEM) data obtained in Antrodoto, Abruzzo Region, central Italy, and Torrate, Friuli Region, northern Italy.

A trip to Italy took place in September 2010, that allowed for further progress to be made with the project, utilising all existing data, including data obtained in the Council for Geoscience petrophysical laboratory.

Cooperation between Germany and South Africa

The objective of the South African/German NRF-funded project, Rapid Automated Integration of Large High-Resolution Airborne Geophysical Data Suites to Compile Lithological and Structural Maps, is to provide fast, largely automated and objective data integration and assessment that promptly enables geological mapping and the identification of exploration targets from a combination of large airborne geophysical and other earth-science-related data sets.

The approach is based on multivariate statistical analysis methods that will quickly and objectively classify large sets of multi-parameter data into a number of groups, i.e. geological units. The software interface has been completed, as well as all major translations of statistical routines. The software developed will assist immensely in mineral exploration in geophysics.

SAGHOS — South African Geological Hazards Observation System

The Department of Science and Technology has allocated a project, For the Earth Observation Research and Development and Human Capital Development of Earth Observation Products and Services, to the Council for Geoscience. The project is directed towards the establishment of a South African Geological Hazards Observation System (SAGHOS), which will enable a geological hazards atlas of South Africa and a framework for assessing geological hazards by using remote-sensing techniques. The project involves a consortium of scientists from the organisation, as well as external and international collaborators. One of the geological hazards that will be addressed is surface deformation as a result of mining activities. In this regard, differential radar interferometry techniques have been successfully employed to detect surface subsidence associated with coal mining in the eMalahleni (Witbank) area.

Barberton Scientific Drilling

Staff members of the Council for Geoscience, amongst others, are facilitating an internationally funded drilling programme in the Barberton mountainland, investigating the early earth-forming processes of the Mid-Archaean, also known as the Peering into the Cradle of Life project. The permission to proceed with drilling was granted by the Minister of Mineral Resources, but required that an Environmental Management Plan and Environmental Impact Assessment be developed. This was completed and submitted to the regional offices of the Department of Mineral Resources of Mpumalanga. The drill core, intended for scientific studies, will be archived at the National Core Library of the Council for Geoscience, from where it can be accessed by interested parties from all over the world. This work is expected to generate a high volume of top scientific publications which will stand the geological community in good stead when unravelling the conditions and processes at the surface of the earth.

Critical Metals Research and Exploration

Rare-earth oxides constitute an important group of natural resources with a wide range of applications in modern high technology, such as permanent magnets, magnetic disks, batteries and lasers.

The Council for Geoscience has partnered with the Geological Survey of Japan to conduct research on rare-earth mineral resources in South Africa. The discovery of minable resources will be beneficial to the sustainable development of the country.

Significant progress has been made by the research team, having identified several potential key deposits for in-depth investigations. Metallurgical tests on a few identified sites are currently in progress.

Continued participation in researching rare-earth metals in South Africa is essential as the location of deposits will lead to production, resulting in job creation and socio-economic development.

Palaeontological Cooperation

An international collaborative project commenced with reconnaissance work on a mass extinction that can be found near the base of the Beaufort Group, as it is exposed in the Western Cape Province. Staff of the Council for Geoscience; Colby College, Waterville, United States of America; Albany Museum, Grahamstown; University of California, Berkeley, United States of America, and the Jack Satterly Geochronology Laboratory, University of Toronto, Canada are involved in this project which aims to help determine whether biodiversity loss in the oceans, considered to be a consequence of changes in global temperature and atmospheric chemistry, is a prelude to the demise of terrestrial ecosystems.

Other Geological and Associated Mapping and Research

Strategic Mine Water Management

Large-scale closure of mining operations since the 1970s in the Witwatersrand mining regions and the subsequent termination of the extraction of underground water from mines has become an important national concern. The activities of the mining sector have led to serious environmental consequences, notably the results of poor environmental and water management and, in the case of the gold mines of the Witwatersrand, acid mine drainage (AMD).

A Team of Experts (ToE) has been instructed by a Task Team, chaired by the Directors General of Mineral Resources and of Water Affairs, to advise the Inter-Ministerial Committee (IMC) on Acid Mine Drainage. The IMC comprises the Ministers of Mineral Resources, Water Affairs, Science and Technology and the Minister in the Presidency: National Planning Commission. The ToE is being chaired by the CEO of the Council for Geoscience and includes experts from the following institutions: the Council for Geoscience, the Water Research Commission, the Department of Water Affairs, the Department of Mineral Resources,

The Council for Geoscience is part of a Team of Experts that addresses acid mine drainage.



Mintek and the Universities of the Witwatersrand, Free State and Fort Hare, as well as the Tshwane University of Technology.

The final report of the Team of Experts on acid mine drainage was submitted to Cabinet in February 2011.

The Strategic Water Management Project (SWMP) of the Department of Mineral Resources was resumed during the period under review and funding was committed for three years. A workshop was held to align the work plan of the SWMP to the recommendations contained in the final AMD report. Aspects that received renewed emphasis are the implementation of engineering solutions and the work of the monitoring committee, including seismic and shaft water-level monitoring. An initial exploratory study into sustainable funding sources for addressing acid mine drainage was added to the SWMP work plan.

Dissolved-oxygen measurements being taken from a thermal spring at Tshipise.



The Council for Geoscience is continuing to contribute towards progress in regard to acid mine drainage, playing a leading role in the Team of Experts and participating as a member of the Inter-Governmental Task Team on Acid Mine Drainage, chaired by the Department of Water Affairs.

Optimal Utilisation of Geothermal Water Resources

Thermal springs are some of the most under-researched and under-utilised of all natural resources in South Africa. This is in contrast with many other countries where thermal springs have been in use for religious and/or medicinal purposes since ancient times. The aim of the project is to identify the current uses of thermal springs in South Africa and to suggest new uses to optimise this resource in a sustainable way. This may assist in poverty alleviation as many of these springs are located in poverty-stricken areas. The research project will continue according to the work schedule as approved by the Water Research Commission.

Climate Change Studies

The Council for Geoscience is currently involved in three climate change projects as part of its statutory programme. The project, Coastal Cenozoic Deposits — Implications for global climate change, involves the reconstruction of palaeo-environmental conditions, such as sea-level change, in terms of dune building. The project, Fossil Dune: Implications for local and global climate change, entails studying the dune gastropods along the western and southern coasts of South Africa in detail because of their importance as potential palaeoclimatic indicators. The project, Climate Change at Kalkkop Crater Lake

near Graaff-Reinet, Eastern Cape, is mainly aimed at reconstructing the palaeo-environmental conditions and sedimentary processes that prevailed during accumulation in the Kalkkop Crater. The southern and western coastlines of South Africa have extensive archaeological records, with sites associated with Aeolian deposits and fossilised terrestrial gastropods that are widespread along these coastlines. Climate change involves a complex interaction of the land, atmosphere and oceans, but on the southern African subcontinent continuous, high-resolution archives of palaeodata comparable to marine cores are extremely scarce, and crater lake deposits can potentially bridge this gap.

Climate change studies are undertaken inland and on the coastlines of South Africa.



- a) Kalkkop Crater
- b) fossil shells on dune sand
- c) *Trigonephrus globulus* snails indicative of palaeo-climate change.



Seismological Studies

One of the focuses of the Council for Geoscience is to promote a better understanding of the tectonic activity in the country. A recent study provided useful insight into the attenuation of seismic waves in South Africa and contributed to the seismological and geological characterisation of the region. The only place in South Africa which guarantees excellent recordings of ground motion caused by seismic events are the mining districts. Thus, a wealth of data from the Rustenburg, Klerksdorp–Orkney–Stilfontein–Hartebeesfontein, Far West Rand and the Central Rand mining districts was utilised to determine the attenuation parameters that control ground motion in mining districts.

The Council for Geoscience developed new expertise in determining the vertical shear-wave (S-wave) velocity profile in soil, which is very important for geotechnical engineering and environmental and geotechnical site characterisation. The process is called the multichannel analysis of surface waves (MASW) and is a non-invasive seismic survey method that the geotechnical community deems to be an efficient method for the measurement of the vertical S-wave velocity profile.

ISO Accreditation of the Analytical Laboratory

The processes for the implementation of ISO 17025 for the Analytical Laboratory of the Council for Geoscience continued throughout the year, whilst the laboratories maintained normal analytical throughput. Staff members of the Council for Geoscience have been instrumental in the completion of the writing up of the analytical methods, installation of an analytical environmental monitoring system and the partial completion of the development of an electronic administration system for electronic sample tracking, sample submissions, job quotations and routing of workflow, amongst others. The next phase will include the validation of the analytical methods and the conduction of the necessary internal and external audits. A sample

reception area and electronic document handling/archiving systems have also been put in place.

CO₂ Storage Potential in South Africa

The Council for Geoscience coordinated and completed a project on the geological CO₂ storage potential of South Africa. The work culminated in both an Atlas and a Technical Report on the geological storage of CO₂ in South Africa. The Atlas was launched in September 2010 by the Minister of Energy, the Honourable Ms Dipuo Peters, MP. This document explains the suitability of sedimentary basins for the safe storage of carbon dioxide, and where South Africa's storage potential has been identified. It elucidates why most of the storage potential lies in the offshore basins of South Africa, while only two per cent is available onshore. While the Atlas is intended for a broad public readership, the Technical Report is intended for a scientific/technical readership.

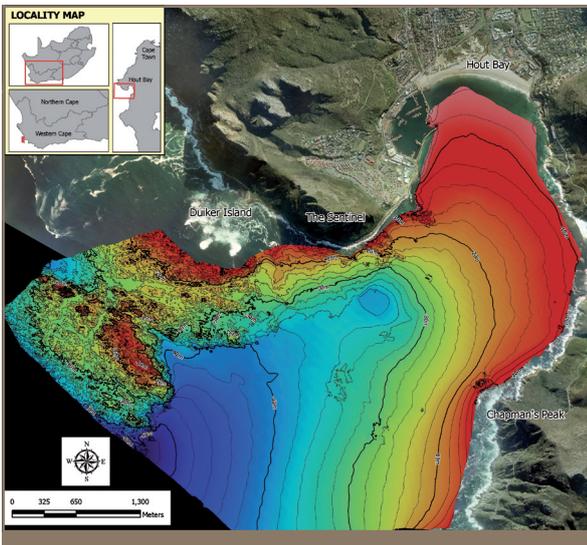
A new study to assess the effective storage capacity of the onshore Zululand Basin was completed towards the end of the financial year. This work involves a detailed appraisal of, amongst others, seismic and drill core data available for the basin, with a view of improving the certainty of the storage capacity estimations made in previous studies. The work was financed by the United Kingdom Department of the Environment and Climate Change via the High Commission in South Africa. The motivation behind the funding is to identify suitable onshore sites for CO₂ test injections, which are scheduled to take place by 2016, according to the roadmap of the South African Centre for Carbon Capture and Storage.

Unravelling the Marine Geology of Hout Bay using Modern Geophysical Techniques

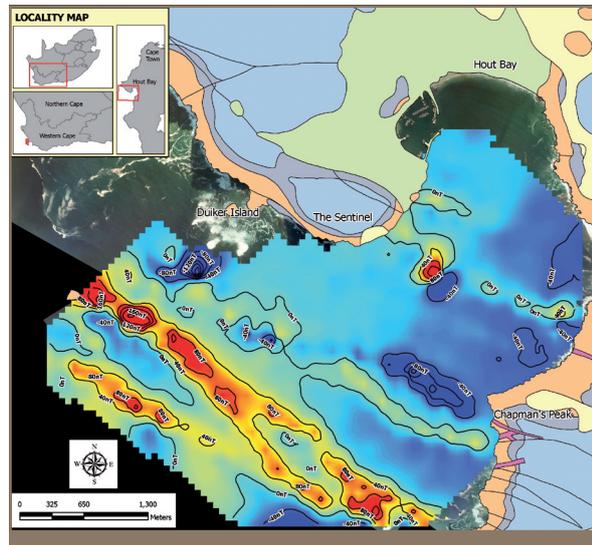
Hout Bay is a relatively small, southward-oriented bay which lies between Chapman's Peak and the Sentinel of Karbonkelberg along the Atlantic seaboard of the southwestern Cape. Although the bay

Marine geophysics provides insight into the geological evolution of coastal shorelines.

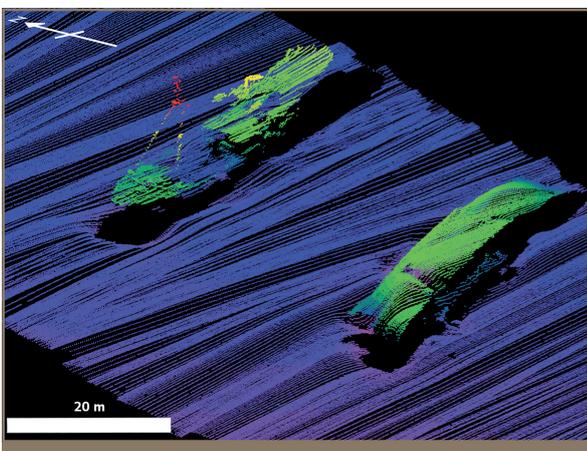
Multibeam image of Hout Bay.



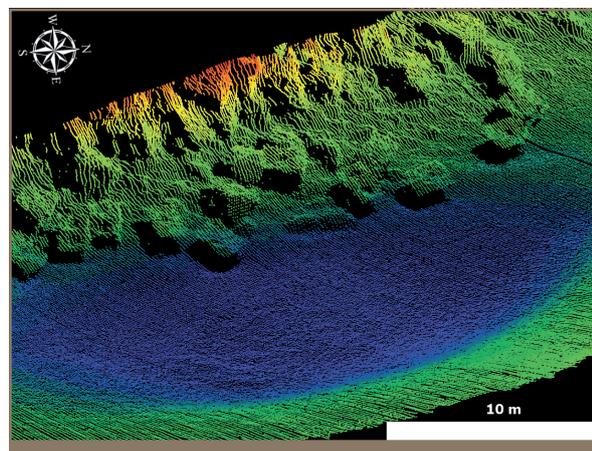
Magnetic anomalies of Hout Bay.



Multibeam point cloud data of two shipwrecks in Hout Bay.



Multibeam point cloud image of the southern breakwater armoring of Hout Bay Harbour.



is generally characterised by calm oceanographic conditions, during winter months some of the largest waves documented worldwide inundate the mouth of the bay. To address the origin and forcing of these waves, the morphology of the Hout Bay seafloor was studied.

The application of marine geophysics provides insight into the geological evolution of coastal embayments and shorelines. The geological history of Hout Bay spans the time from the Cambrian to the Recent. Geophysical and hydrographic systems, including single- and multibeam bathymetry, side-scan sonar, overhauser magnetics and boomer seismics, were utilised to map the offshore geology in ultra-high resolution. New insights into the distribution of Cape lithologies are provided, as well as interpretations of (now submerged) Cretaceous dolerite intrusions related to the break-up of Gondwana. Hout Bay is one of the few areas on the west coast of the Cape Peninsula with a substantial accumulation of Quaternary sand. Geophysical data have been used to model modern sediment dynamics and the architecture of the Holocene sediment wedge.

National Mineral Resources Assessment

The Council for Geoscience conducted the scoping study for a national mineral assessment during the year. The project includes studies of the Minerals Energy Complex (MEC) and material flow analysis. The MEC encompasses the linkage of mining industries with manufacturing industries and their contributions to the economy. Material flow analysis is defined as the systematic accounting of the flow and stock of material within a system which connects the sources, the pathways and the final sinks of a material. A case study of manganese was undertaken as part of the material flow analysis.

Manganese flow analysis indicated that the overwhelming majority of manganese ore from South Africa is currently exported to China, and, hence, depends on the performance and demands of China's steel industries. South Africa hosts about 75 per cent

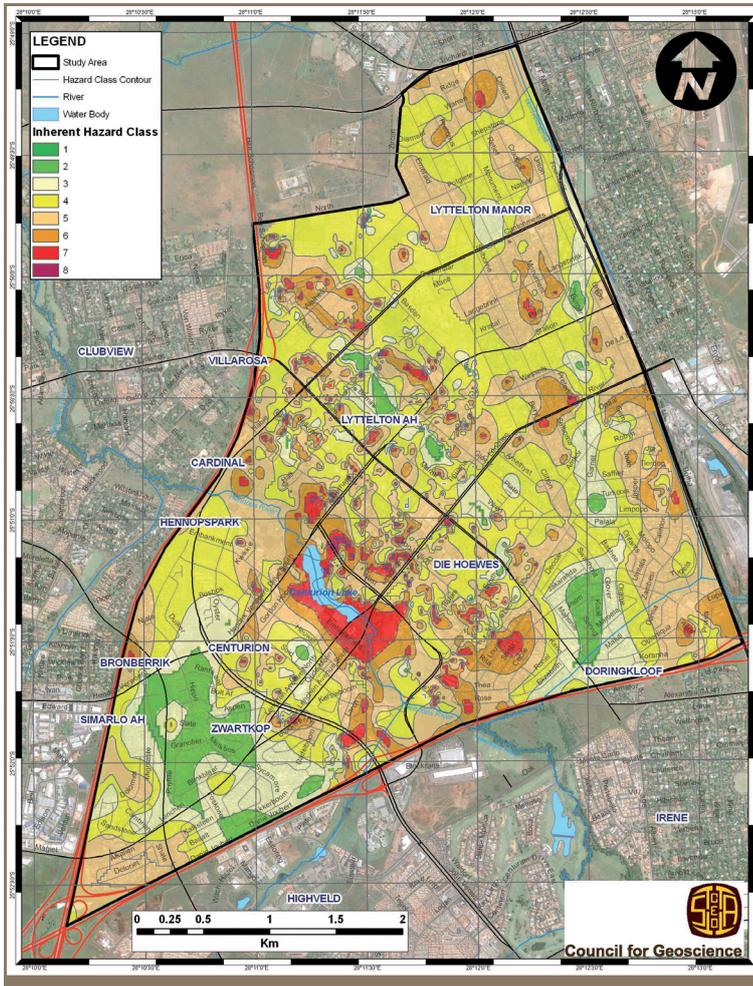
of the world's manganese resources, but the country's production in 2008 represented only about 15 per cent of the total world production. On the other hand, China's manganese production amounted to about 42 per cent of the world's manganese production, while the country holds a mere 2 per cent of the world's manganese resources. It is critical that local beneficiation is encouraged, with more incentives that will help to increase the demand for manganese in the country. Manganese ore exported in 2008 was about 68 per cent, compared with 32 per cent of the manganese ore used in the domestic industries and stockpiles. Beneficiation will enhance the diversification of the economy from a resource-based to a sustainable knowledge-based economy, hence reducing the dependency on mineral resources and its associated price volatility. Research may be required for new technological innovations to reduce the loss of manganese during processing, primary steel manufacturing and downstream industries.

Centurion Risk Map

Urban density in Centurion has rapidly increased over the last forty years, and the area has become a major residential node midway between Johannesburg and Pretoria. The new Gautrain route will traverse across the Centurion CBD area, which should encourage new high-rise developments. In order to guide this increased urban densification, a hazard map is required to ensure that developments are not subjected to risks from sinkhole formation. The current classification system used on dolomitic land is also being reviewed in order to assess the probability of sinkhole formation in the study area.

A total of 106 sinkholes have been recorded in the Centurion CBD area since the early 1970s. The average sinkhole depth for the study area is 3 m, whereas the average sinkhole size is 5 m in diameter. Three lives have been lost as a result of sinkhole formation in the study area, and a total of seven houses or living units had to be demolished. Significant financial costs were incurred to

Hazard of sinkhole formation in the Centurion area.



repair structures, infrastructure and services. Ninety two per cent of the events in the study area occurred as a result of the disturbance of the natural ground conditions through increased water ingress.

Almost two thirds of the study area represent a medium hazard for sinkhole formation, with almost one third of the area considered as having a high hazard for the formation of sinkholes, and only a small portion of the area (5%) representing low hazard conditions.

Recommendations regarding the various types of land uses indicate that the majority of the Centurion CBD and surrounding areas would be suitable for most types of residential and commercial type developments. Commercial type developments are more suitable in the CBD area, adjacent to the Centurion Lake, while residential type developments are suitable towards the periphery.

Sinkholes occurred next to the N1 highway during the year.



Karst Sinkhole and Subsidence Records for the Gauteng Province

Sinkholes and subsidences occur in areas underlain by dolomitic rocks. These instability events can result in loss of life and/or damage to property when they coincide with human development. Dolomitic land is found in several provinces, including Gauteng, Mpumalanga, Limpopo, North West and the Northern Cape. The Gauteng Province is by far the worst affected; in excess of 2 400 subsidence events have occurred

Sinkhole in Valhalla, Pretoria, that formed in August 2010.

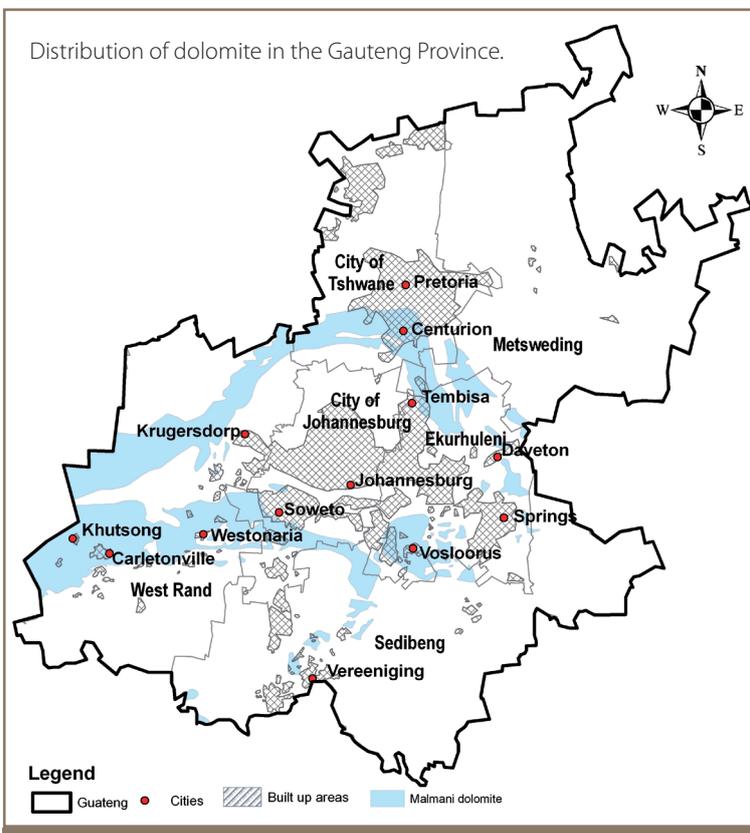


over the past 60 years. A sinkhole and subsidence database is crucial for future assessments of sinkhole hazards and decision making with regard to structural development types and foundation designs.

A desk study has been conducted, incorporating all available sinkhole and subsidence information for three municipalities in the Gauteng Province, i.e. the City of Tshwane Metropolitan Municipality, West Rand District Municipality and Ekurhuleni Metropolitan Municipality. The information collected indicates the number of sinkholes and subsidences that have occurred in the past; however, data verification still needs to be done. A preliminary analysis has been carried out on the limited available data.

Analyses show that the Tshwane, West Rand and Ekurhuleni Municipalities have more sinkholes than subsidences or cracks; the dominant sizes of sinkholes differ across the three municipalities, and the dolomite formation on which most of the instability events have occurred is the Monte Cristo Formation, followed by the Eccles Formation, both of the Malmani Subgroup.

Distribution of dolomite in the Gauteng Province.



Industrial Minerals Map of South Africa

There is a strong perception that South Africa is over-explored with regard to metalliferous ores and under-explored with regard to industrial minerals. It is therefore not surprising that exploration for new base-metal deposits in South Africa by large corporations has declined over the past ten years. On the other hand, most industrial-mineral mining companies are small- to medium-size enterprises with limited available venture capital. If the large value-added potential of industrial minerals, from crude-mined products through to beneficiated mineral products and finished industrial products, is considered, it is evident that beneficiation will be directly transferred to the industrial sector of the South African economy where most of the products find their markets. It is in the industrial sector of the

economy that industrial minerals contribute most to job creation and poverty alleviation through their large value-added potential.

It is the objective of this project that the entrance risk for existing and new small- and medium-size companies be lowered by identifying and, within limits, characterising existing and new industrial-mineral mining opportunities. Research and an inventory of industrial minerals are currently undertaken in the Eastern Cape Province and consist of the following 1:250 000-scale geological map areas: 3024 Colesberg, 3026 Aliwal North, 3028 Kokstad, 3030 Port Shepstone, 3124 Middelburg, 3126 Queenstown, 3128 Umtata, 3222 Beaufort West, 3224 Graaff-Reinet, 3226 King William's Town, 3228 Kei Mouth, 3322 Oudtshoorn, 3324 Port Elizabeth and 3326 Grahamstown.

Small clay workings east of Indwe in the Eastern Cape Province.



The minerals covered are salt, gypsum, phosphate, coal, clay (brick clay, interstratified illite-montmorillonite clay, bentonite, hormites: palygorskite and sepiolite), rutile, aggregate, gravel and sand, silica, agrominerals, dimension stone, dolerite, sandstone, travertine, quartzite, pigments, lithium, shale gas and kieselguhr.

In addition to the symbolised locality indication of mineral occurrences and deposits, information on the infrastructure and simplified regional geology will be indicated on the map, as industrial minerals are dependent on these parameters.

Kaolin quarry in Grahamstown.



Publications

85

Publications released during the year

- Meteorite Impact! The Danger from Space and South Africa's Mega-Impact, The Vredefort Structure, 3rd Edition by W.U. Reimold and R.L. Gibson (editing and layout by the Council for Geoscience; printing and publishing by Springer Verlag, Germany)
- Atlas on geological storage of carbon dioxide in South Africa by M. Cloete
- Technical report on the geological storage of carbon dioxide in South Africa by J.H.A. Viljoen, F.D.J. Stapelberg and M. Cloete
- Explanation: Sheet 2926AB (1:50 000). The geology of the Maselspoort area by P.J.A. Bosch
- Explanation: Sheet 2527DD (1:50 000). The geology of the Broederstroom area by B.A. Ingram and D.M. van Tonder
- Explanation: Sheet 2926BB (1:50 000). The geology of the Thaba Nchu area by P.J.A. Bosch
- Explanation: Sheet 3018 (1:250 000). The geology of the Loeriesfontein area by P.H. Macey, H.P. Siegfried, H. Minnaar, J. Almond and P.M.W. Botha
- Explanation: Sheet 2816 (1:250 000). The geology of the Alexander Bay area by H. Minnaar, P.M.W. Botha and D. Roberts
- Explanation: Engineering Geology: Sheets 3418AB&AD: Soil profiles developed on the rocks of the Cape Peninsula, Western Cape, South Africa by F.D.J. Stapelberg

- Annual Report of the Council for Geoscience 2009/10
Annual Technical Report of the Council for Geoscience 2008/09

Seismological Series 42: Catalogue of earthquakes in southern Africa and surrounding oceans for 2006 by I. Saunders.

Maps released during the year

1:50 000 Geological Maps

- 2429BC Lebowakgomo
2930DD & 2931CC Durban
3317BB & 3318AA Saldanha
3418BB Somerset West
3418BD Hangklip
2429AA Mokopane
3227CD King William's Town
2528CC Centurion
2627BC Westonaria

1:250 000 Gravity Maps

- 2230 Musina
2328 Polokwane
2330 Tzaneen
2428 Modimolle
2528 Pretoria
2620 Twee Rivieren

2628 East Rand
 2630 Mbabane
 2728 Frankfort
 2730 Vryheid
 2816 Alexander Bay
 2826 Winburg
 2828 Phuthaditjhaba
 2916 Springbok
 2926 Bloemfontein
 2928 Drakensberg
 3026 Aliwal North
 3028 Kokstad
 3126 Queenstown
 3128 Umtata

1:250 000 Metallogenic Maps

2628 East Rand.

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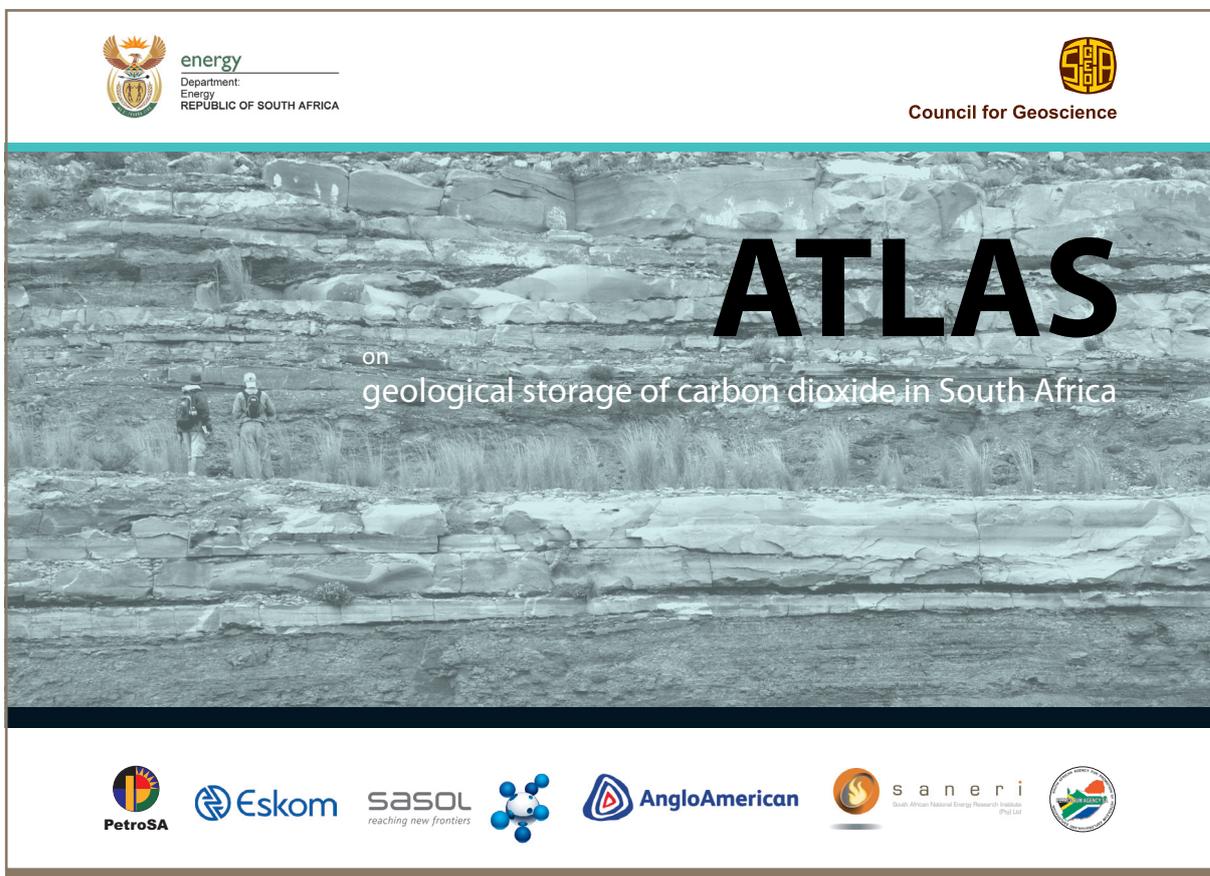
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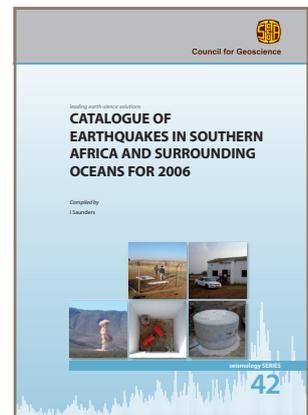
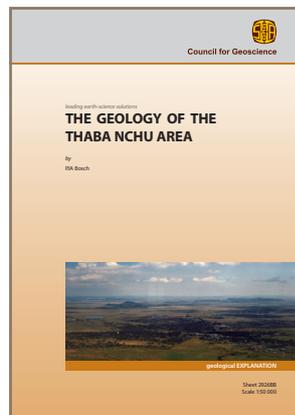
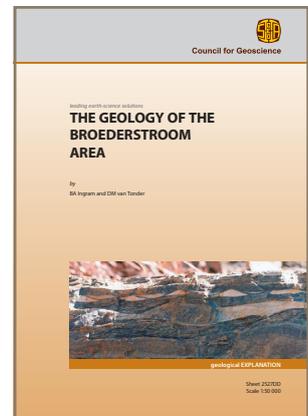
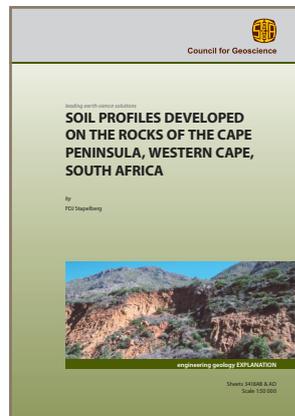
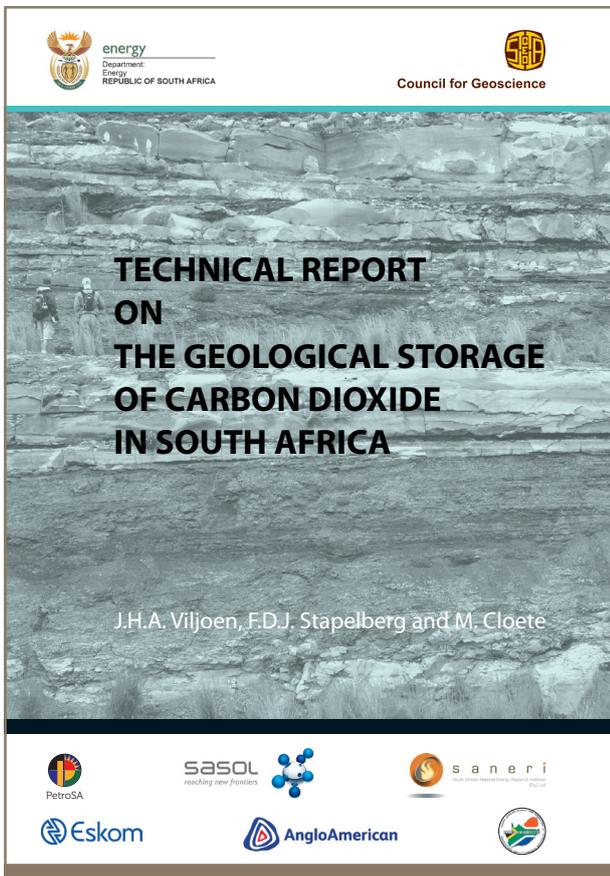
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Social Responsibility

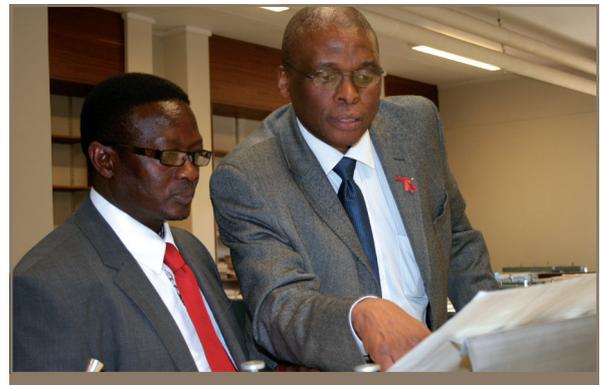
Career Expositions, Conferences, Exhibitions and Tours

The Council for Geoscience has participated in a number of conferences, career expositions, learner focus weeks and exhibitions during the period under review and, as a result of these marketing initiatives, a number of high-profile delegations, schools and individuals visited the organisation.

Delegations from as far as China, Russia and Thailand, as well as from the continent, such as Nigeria and Sudan, strengthened ties with the organisation. Through its presence at career expositions and exhibitions, the Council for Geoscience attracted a number of schools, from as far as Venda, that toured the head office or regional offices.

In August 2010, the Council for Geoscience hosted the Parliamentary Portfolio Committee on Mineral Resources, which was followed by a visit of the Deputy Minister of Mineral Resources, the Honourable Mr Godfrey Oliphant, MP, on 8 December 2010.

The Deputy Minister of Mineral Resources (left) visited the Council for Geoscience.



Council for Geoscience Management and members of the Parliamentary Portfolio Committee on Mineral Resources.



There was positive interaction at the National Science Week with many learners keen to know more of geology and the opportunities it presents.

The Council for Geoscience exhibited at the following events:

Conferences

CAG23 Conference — 8–14 January 2011
Mining Indaba — 7–10 February 2011.

Career expositions, exhibitions and other events

DMR Learners Focus Week Workshop in Mpumalanga, Limpopo, Gauteng and Free State — 12–27 May 2010
Wellness Day — 28 May 2010
DMR Umkhondo We Sizwe Information Session in Mamelodi — 2 July 2010
Ditsong: Tswaing Career Expo — 28–30 July 2010
Take a Girl Child to Work Day — 5 August 2010
DMR Women's Day — 20 August 2010
DMR Learners Focus Week, Limpopo — 26–29 September 2010
World AIDS Day — 1 December 2010
DMR Information Session, Samungu Primary School, Empangeni — 26 March 2011.

Educational Tours

Orhovelani High School — 6 May 2010
Doxa Deo College — 21 September 2010
Penry College, Nelspruit — 31 March 2011.

Delegations

Chinese delegation — 3 May 2010
Russian delegation — 7 June 2010
Portfolio Committee — 2–3 August 2010
Swedish delegation — 2 December 2010
DMR Deputy Minister — 8 December 2010
Nigerian delegation — 2 February 2011
RMSI Indian delegation — 11 February 2011
Thai delegation — 4 March 2011
Chinese delegation — 24 March 2011.

The Council for Geoscience exhibited at the DMR Learners Focus Week in Limpopo.



Outreach Programmes

Staff of the Council for Geoscience visited the Beulah Children's Shelter in Polokwane in celebration of Nelson Mandela Day and invited two young students to the Limpopo Regional Office as part of the Take a Girl Child to Work day, where they were exposed to the daily activities of the staff. They were shown how to read geological maps, look at a thin section of rock through a petrographic microscope and were given an insight into the administrative functions of an office.

Students visited the Limpopo Office as part of the Take a Girl Child to Work day.



The Council for Geoscience at the National Science Week in Limpopo.



Educational Activities

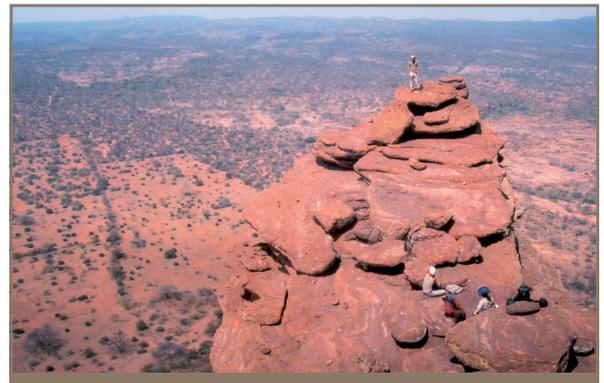
In August 2010, staff participated in the National Science Week at the University of Limpopo. There was positive interaction with the many learners keen to know more of geology and the opportunities it presents.

A Field School was held in Legalameetse, Limpopo, in November 2010 for interns at the Council for Geoscience. The trainees were exposed to the various aspects of practical field mapping, including planning, data collection, sampling, plotting and data interpretation, report writing, four-wheel driving and camp activities. The emphasis on both scientific and interpersonal skills is a prerequisite for a successful field project, and sufficient training in these skills will stand the participants in good stead in their geoscience careers.

Annual Field School of the Council for Geoscience in Limpopo.



Education and training through geoscience. The Waterberg Group sandstones.



A presentation was made at the 6th Quadrennial Conference of the International Geoscience Educators Organisation, held in Johannesburg in September 2010, to explain the evolution of the atmosphere as a driver for earth changes. The presence of three-billion-year-old pyrite in quartzites of the Witwatersrand and two-billion-year-old red sandstones of the Waterberg Group is indicative of the changing content of oxygen in the atmosphere. These and other geological concepts can be introduced in the classroom situation with a small collection of rocks that can be relatively easily assembled.

Young Science Forum in the Western Cape

The Western Cape Young Science Forum initiated support to a charity foundation in Bellville, with staff members of the Western Cape Regional Office participating in the knitting of 80 bears, all of which have their own unique character, which were handed over to the child patients at the local hospital.

Staff members supported the Adopt a Child for Christmas initiative and made up 17 boxes with personalised items, which were given to children of two local informal settlements at a Christmas party held in Somerset West on 3 December 2010.

The Council for Geoscience supports the local community.



Bursars of the Council for Geoscience

The Council for Geoscience has a group of 22 bursars, studying at various institutions in the geosciences.

Surname	Initial	Gender	Year of Study	Institution
Hlongoane	G J	Male	2nd year	WITS
Dube	M G	Female	3rd year	NWU
Govender	N	Male	3rd year	UKZN
Lutsenge	T B	Female	3rd year	UP
Mashale	H	Female	3rd year	UP
Matlokotsi	M B	Male	3rd year	UFS
Mhlongo	P M	Male	3rd year	UKZN
Mpane	T M	Female	3rd year	WITS
Mphahlele	C	Female	3rd year	WITS
Ntikang	T J	Male	3rd year	UWC
Selepe	M	Male	3rd year	UP
Sithole	S T	Male	3rd year	US
Mokoena	N T	Female	B Tech	TUT
Rikhatso	C	Male	B Tech	TUT
Botsi	D	Male	Honours	UP
Buthelezi	M C	Female	Honours	UKZN
Halenyane	K	Female	Honours	UCT
Mulabisana	T F	Female	Honours	WITS
Mutele	L P	Male	Honours	RU
Xanga	S	Male	Honours	UFH
Zama	N	Female	Honours	UKZN
Fisha	L G	Male	National Diploma	VUT

WITS – University of the Witwatersrand
 NWU – North-West University
 UWC – University of the Western Cape
 UP – University of Pretoria
 UFS – University of the Free State
 UKZN – University of KwaZulu-Natal

UFH – University of Fort Hare
 US – University of Stellenbosch
 RU – Rhodes University
 UCT – University of Cape Town
 TUT – Tshwane University of Technology
 VUT – Vaal University of Technology

Future Outlook

OF THE COUNCIL FOR GEOSCIENCE

The future outlook of the Council for Geoscience is set against the steadily improving economic conditions, both nationally and internationally. Accordingly, a key objective of the Council for Geoscience will be to position itself to fully capitalise on increasing economic activity.

The Council for Geoscience continues to operate within a financial model where its mandated and public-good functions are largely funded by commercial revenue earned. Although this exposes the organisation to economic fluctuations, the intention is to develop a stronger commercial base both nationally and internationally. Part of this drive will be an increasing focus on identifying and submitting tenders, with possible restructuring of the organisation to improve its competitiveness and commercial income in this regard.

Although the financial year saw the suspension of large portions of the Annual Technical Programme owing to financial constraints, the planning for the forthcoming year is that resources will be available to reinstate parts of the programme. Although this represents a positive development, it is expected that the organisation will still not be able to fully fund the technical programme.

To improve the competitiveness of the organisation, it has compiled the procedures necessary for accrediting to ISO 9001 standards and ISO 17025 standards for the laboratories. The forthcoming year will be devoted to the implementation of the ISO procedures in preparation for final ISO accreditation.

The Council for Geoscience will be replacing critical parts of its building and associated equipment infrastructure, which is mainly laboratory related. This is not only a requirement for being ISO accredited, but will ensure increased business continuity. In addition, a review of the vehicle fleet of the Council for Geoscience and the possible partial replacement of the vehicle fleet will be completed.

The cost-cutting measures of the organisation severely affected the acquisition of library holdings. In the forthcoming year an attempt will be made to reinstate suspended subscriptions to scientific journals, and purchasing back issues to ensure that the library's holdings are complete, as part of the mandate to maintain a national geoscience library.

The retention of staff is viewed as a critical component of the continued operations of the Council for Geoscience. Accordingly, the organisation will

implement retention measures for particularly key staff with 5 to 10 year plus levels of experience who are working on strategically important projects.

The Council for Geoscience is likely to review its policies in respect of the allocation of geoscience bursaries. This was necessitated because of financial constraints. Future bursary awards will be linked more closely with the commercial income streams of the organisation.

The Council for Geoscience, in collaboration with the Geological Society of South Africa and the South African Committee of the International Union of Geological Sciences, with support from the Department of Mineral Resources, won the bid to host the globally prestigious International Geological Congress in 2016 in Cape Town. The organisation will continue to play an important role as part of the local organising committee, providing secretarial, logistical and administrative support. It will also assist in the drive to secure financial sponsorships for the event and will continue to keep the Department of Mineral Resources and the National Cabinet informed of the progress in this regard.

The amendments to the Geoscience Act were passed by Parliament this year. The Council for

Geoscience will be compiling the associated regulations for implementation in the forthcoming year. The amendments and associated regulations provide the organisation with an important opportunity to assist with issues related to land use, especially where geohazards represent potential threats.

The Council for Geoscience has played a vital role in advising Government on acid mine drainage in the Witwatersrand Basin through the Inter-Ministerial Committee on Acid Mine Drainage. It will continue to play an important role through the implementation of projects to mitigate the effects of acid mine drainage.

The organisation will continue to submit project and programme applications through the Department of Mineral Resources as part of the annual Medium Term Expenditure Framework process. The organisation has not been altogether successful in the past, but will submit projects for consideration that are deemed to be of national importance.

The Council for Geoscience will continue to play a leading role in the country's need to identify geologically suitable areas for the storage of carbon dioxide, as part of its commitment to reduce the effect of greenhouse gases. Further work in this regard will continue in the Zululand and Algoa Basins.

Sustainability Report

OF THE COUNCIL FOR GEOSCIENCE

Executive Remuneration

Chief Executive

In terms of Section 18(5) of the Geoscience Act (Act No. 100 of 1993), the *'Executive Officer shall be appointed on such conditions, including conditions relating to payment of remuneration, allowances, subsidies and other benefits as the Management Board may determine in accordance with a system approved from time to time by the Minister with the concurrence of the Minister of State Expenditure'*.

Executive Management Team

The remuneration of the Executive Management team is determined by the Management Board of the Council for Geoscience and is reviewed from time to time.

Transformation

The Council for Geoscience adheres to equal opportunity and affirmative action principles, as

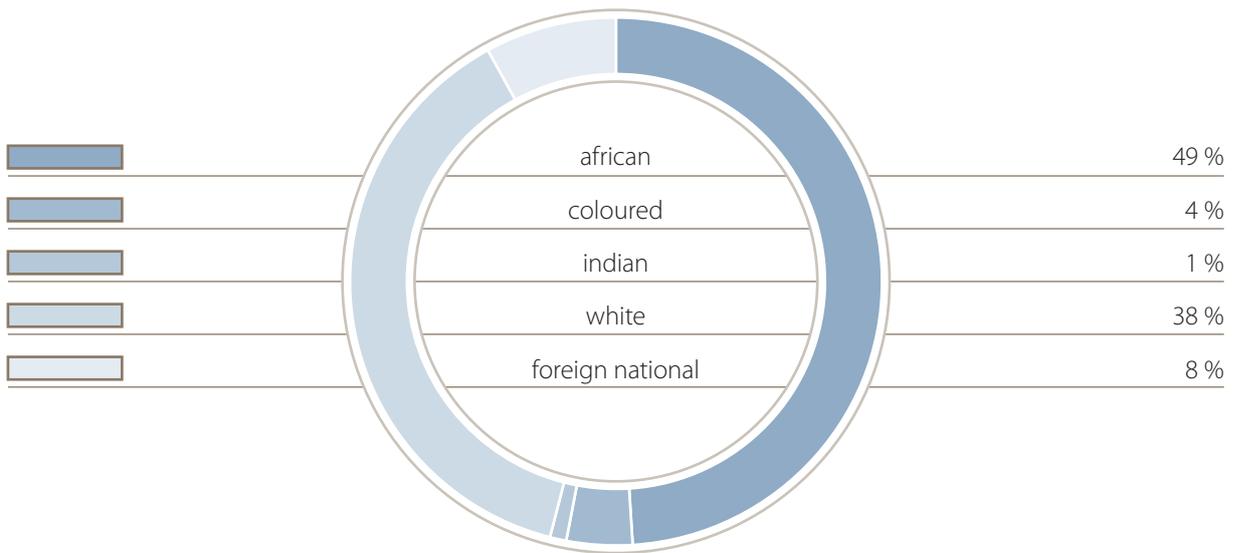
promulgated in the Employment Equity Act (Act No. 55 of 1998).

The Personnel, Remuneration and Transformation Committee of the Management Board of the Council for Geoscience is responsible for monitoring and evaluating progress on transformation and skills development.

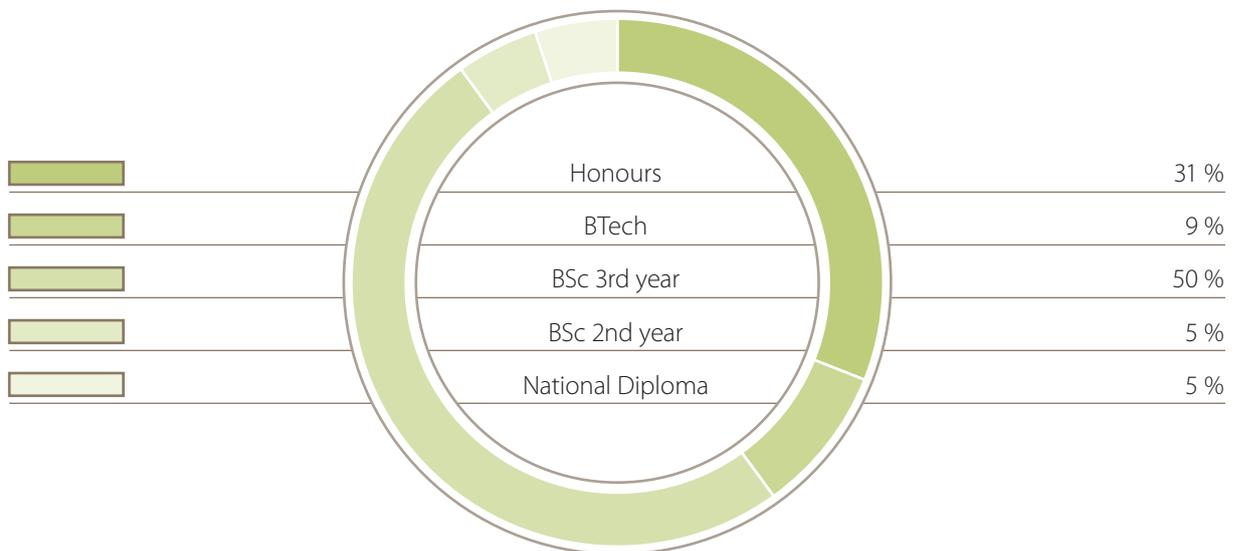
The Council for Geoscience operates in a labour market characterised by a scarcity of geoscientific skills and one that is highly competitive. Positive measures are in place to address the attraction of potential scientific skills from designated groups. A bursary scheme is in place, and the programme is used as a feeder pipeline to attract potential and developing scientists from designated groups into the field of geoscience.

The following tables illustrate the demographic composition of the staff and the qualifications of the Council for Geoscience bursars.

Overall Staff Profile as at 31 March 2011



Overall Qualifications of Bursary Students as at 31 March 2011



Ethical Management

Adherence to the code of ethics

The Council for Geoscience has developed and adopted a Code of Ethics for the Board, Executive Management and staff. The code of ethics links to the values of the organisation and requires all employees to maintain the highest ethical standards.

Safety, Health And Environmental Management

The Operational Risk Management Committee (ORMC), which functions at executive level, takes responsibility for occupational health and safety issues in the organisation. The role of the ORMC is to identify and monitor significant risk elements that could have an effect on the operations of the Council for Geoscience.

The ORMC is supported through a Business Continuity Committee (BCC). The mandate of the BCC is to ensure that all risks which may disrupt the operations of the organisation are highlighted and addressed on time. The Business Continuity Committee is mandated to:

- Ensure that the Council for Geoscience complies with the Occupational Health and Safety Act (Act No. 85 of 1993)
- Anticipate clearly and comprehensively all forms of crisis situations
- Develop strategies and procedures to cater for the risks
- Monitor the implementation and effectiveness of the countermeasures instituted.

Management

OF THE COUNCIL FOR GEOSCIENCE

CHIEF
EXECUTIVE OFFICER
Thibedi Ramontja



BOARD ADMINISTRATOR
Nangamso Mbeki



Human Resources - *vacant*
Marketing and Communications - *Nthombi Mdluli Jacha*

executive manager

CORPORATE SERVICES
vacant

- Annual Technical Programme Management
- Commercial Project Tender Management
- Strategy Planning Cycle
- Technology and Innovation Management

in the office of the CEO

STRATEGIC SERVICES
Nico Keyser and Maleka Monyepao



Council for Geoscience

executive manager

APPLIED GEOSCIENCE
Fhatuwani Ramagwede



Engineering Geoscience	- Stewart Foya (Acting)
Environmental Geoscience	- Tsholofelo Phajane
Minerals Development	- Stewart Foya
Water Geoscience	- vacant

executive manager

SCIENTIFIC SERVICES
Gerhard Graham



Geophysics	- Patrick Cole
Information and Collections Management	- Danie Barnardo
Laboratory	- Thinus Cloete
Regional Geochemical Mapping	- Thinus Cloete
Seismology	- Michelle Grobbelaar
Spatial Data Management	- Ken Wilkinson

executive manager

REGIONAL
GEOSCIENCE AND MAPPING
Peter Zawada



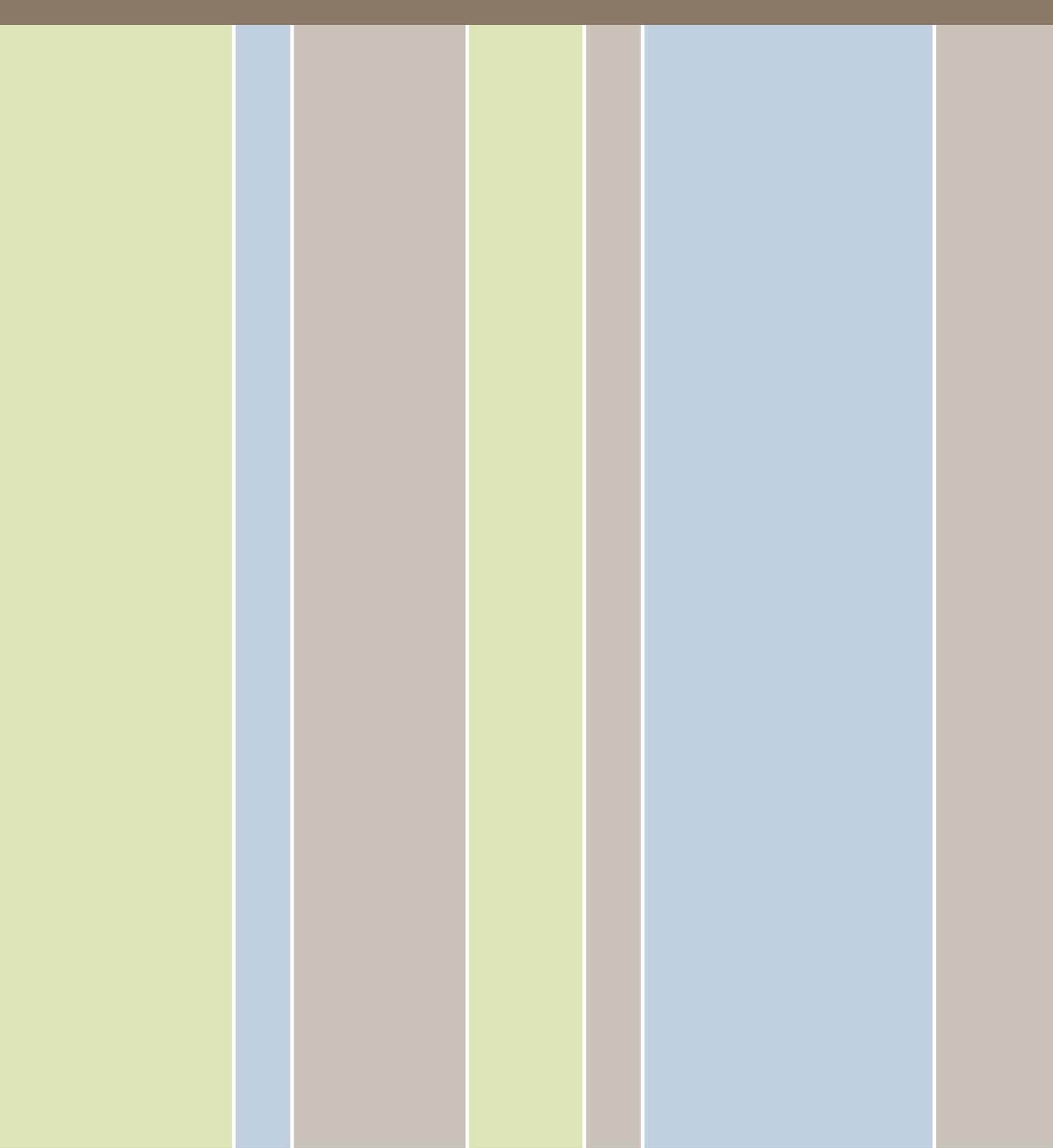
Central Regions	- Abraham Thomas
Eastern Cape	- Greg Botha
KwaZulu-Natal	- Greg Botha
Limpopo	- Nick Baglow
Marine Geoscience	- Luc Chevallier (Acting)
Northern Cape	- Luc Chevallier
Western Cape	- Luc Chevallier

chief financial officer

CFO SERVICES
Leonard Matsepe



Finances and Procurement	- Leonard Matsepe (CFO)
Information and Communication Technology	- Peter Motaung
Technical Services and Logistics	- De Clerq Botha



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RP: 67/2011

ISBN: 978-1-920226-34-3