

NEWSLETTER

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Call for Contributions

We would love to feature your contributions – If you have news, updates, insights or articles you would like to share with the Geological community please submit your content to **lully.govender@gssa.org.za** - Your contributions will be reviewed and if approved will be included in the newsletter.



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NOLEEN PAULS

GSSA PRESIDENT

Heritage Month: Celebrating Our Land and Legacy

September is Heritage Month in South Africa — a time to reflect on the diverse traditions, histories, and values that connect us. While we often highlight our cultural and social heritage, our geological heritage is equally remarkable and worth celebrating.

South Africa is home to some of the world's oldest rocks, globally important fossil sites, and unique landscapes like Table Mountain. Sites like the Cradle of Humankind remind us that our story is deeply connected to the Earth itself.

As we mark Heritage Month, let's honour not only the richness of our people and cultures, but also the natural foundations that continue to shape our shared future.



And what better way than to celebrate our geoheritage milestones.

Earlier this year, the GSSA helped bring geology to life by partially funding the installation of new information boards at the Pilanesberg Complex and the Kgaswane Nature Reserve in Rustenburg. These boards offer visitors accessible explanations of the area's unique geological features, providing engaging context for those without a technical background.

The Geology Museum is bouncing back! Thanks to the hard work of the Geology Museum Association (GMA) members and Museum Africa staff, the Geology Exhibit has undergone a remarkable transformation; cabinets have been cleaned, samples dusted, damaged walls repainted, and labels collected for reattachment.

The Geology storeroom has seen equally impressive progress under the care of Ms. Lesego Mlambo who has restored old display cabinets, giving them a fresh new look. The big challenge is replacing flood-damaged cardboard boxes with sturdy plastic crates—fundraising efforts are underway to make this possible.

Next up: washing selected samples and reattaching labels to displays. Step by step, the Geology Museum is being brought back to life!



SANPARKS is responsible for the construction and maintenance of the Kgodumodumo Dinosaur Centre in the Golden Gate National Park, which has just been opened (see <https://www.sanparks.org/parks/golden-gate-highlands/what-to-do/activities/kgodumodumo-dinosaur-interpretive-centre>). It is a magnificent facility and entrance is free until end September. The Karoo Origins Fossil Centre in Graaff-Reinet, championed by Bruce Rubidge and Wits University, opened in mid-August (see <https://fossilcentre.co.za/home/>). Both of these facilities are world-class and well worth a visit if you are travelling in the vicinity.

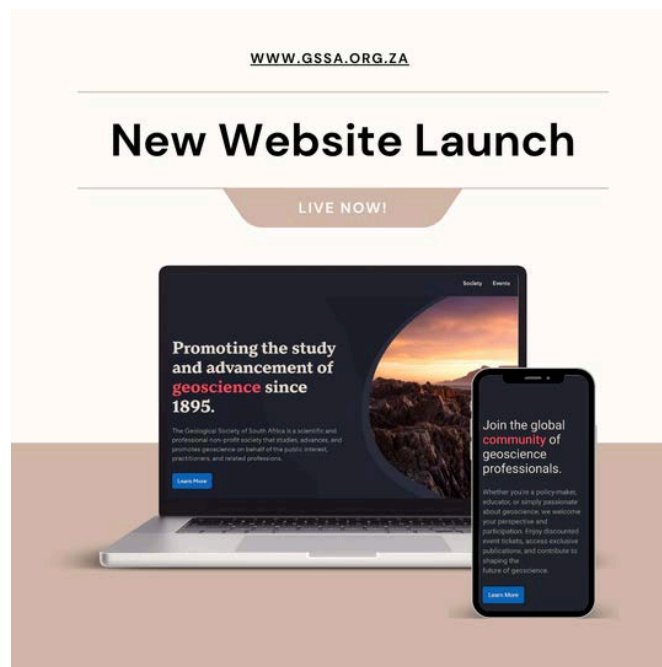
Continuing the celebration of South Africa's rich geoheritage, Professor Marlina Elburg (Department of Geology, University of Johannesburg) was interviewed on the Aubrey Masango Show on Radio 702 on Wednesday, 17 September. She shared her insights on the Pilanesberg Complex, addressing recent claims on popular websites that it represents "the world's oldest volcano. Although the latter is of course not true, it is a remarkably well-preserved Mesoproterozoic subvolcanic alkaline complex with many unusual minerals. As the public called in with their questions, the hour-long interview ended up covering geology in its broadest sense, from the birth of our solar system to continental drift and orogenesis - showing that there still is an audience out there interested in our favourite subject.

This month, the GSSA and co-patron Southern African Institute of Mining and Metallurgy (SAIMM) also celebrated the 25th anniversary of the SAMREC Code - a quarter of a century of shaping trust, integrity, and excellence in reporting South Africa's mineral resources and mineral reserves.

When the SAMREC Code was first launched in 1998, it represented more than just a technical framework. It was a statement of intent – that South Africa would stand shoulder to shoulder with the global mining and investment community, holding ourselves accountable to the highest standards of transparency, materiality, and competence. Over the years, SAMREC has become a cornerstone of investor confidence, guiding companies, practitioners, and regulators through turbulent markets and ever-evolving challenges.

The collaboration between the SAMREC Working Group, SAIMM and the GSSA has ensured that the Code has remained dynamic, credible, and responsive to change. This partnership has helped position South Africa as a leader within CRIRSCO – the Committee for Mineral Reserves International Reporting Standards – giving our country a strong and respected voice on the global stage.





Our new website and web application backend showcases a modern security and architectural design, featuring a modular system that mirrors real-world business processes. The platform uses a non-monolithic architecture with a clean frontend and secure backend, where CloudOffice represents our first major module for centralizing business workflows. Security is handled through robust role-based authentication, ensuring users only access what they're authorised to see.

We've implemented a high-performance flat-file database that eliminates many traditional database security vulnerabilities while maintaining fast query performance. The modular design means new features and capabilities can be added seamlessly without disrupting existing functionality, and the entire codebase follows Domain-Driven Design principles, making it highly maintainable and naturally aligned with how GSSA operates.

Our new website is slowly filling out, with new modules being wired in weekly. Note, however, that it will take time for all of the features to be included and we beg your indulgence in this matter. In the interim, however, we would ask that everyone please access their account and update all of their details - this will help us to ensure a smooth transition and prevent you from missing out on any of the services that you have come to expect from the GSSA. You do this through the DASHBOARD feature.

If you have difficulty accessing your dashboard and account services, please send an email to info@gssa.org.za explaining the problem; If you can't log in due to a change in email address, please include a copy of your proof of GSSA membership (or proof of payment of your 2025 fees, showing your GSSA number), your current email address, your past email address that was previously used to access the site, and an alternative email address where we can contact you directly (preferably not a company/institution address).

9 SEPTEMBER 2025

Professionalism & Code of Ethics



The GSSA held an online workshop dealing with Professionalism and Ethics in the Geosciences on Tuesday 8th September 2025. Professionalism in the geosciences is vital for ensuring ethical conduct, scientific integrity, and public trust. Geoscientists often work on projects with profound societal and environmental implications—such as resource management, hazard mitigation, and climate research—so their decisions must be guided by transparency, accountability, and respect for diverse communities. Upholding professionalism also fosters collaboration across disciplines and cultures, enabling geoscientists to navigate complex challenges with both technical expertise and moral responsibility. In essence, it's the compass that keeps the science grounded and the impact meaningful.

This FREE workshop is held annually. Its purpose is to introduce young professionals to the world of professional registration, continuing professional development and professional conduct. It also presents the GSSA Code of Ethics and demonstrates various acceptable and non-acceptable actions by reference to a number of real-life case studies. This year, 132 delegates attended the three-hour workshop.

11 & 12 SEPTEMBER 2025

Data Analytics & Machine Learning



The GSSA hosted the annual Data Analytics and Machine course, taught by Prof. Glen Nwaila from the University of the Witwatersrand. This two-day course has been designed to be accessible for people with no prior coding experience and aimed to develop the skills of geologists in an increasingly data-intensive world. The course explored diverse topics, including geostatistics, exploratory data analysis, and geological uses of machine learning, which are transforming the industry. Participants engaged in practical exercises and group discussions, while building their fundamentals in python, leaving them with an appreciation for the evolving role of data analytics and machine learning, and ready to apply these skills in their careers.



Structural Course Southbroom - UKZN 20 & 21 September 2025



The Geological Society of South Africa recently hosted a highly successful Structural Geology Field Course on the spectacular coastal outcrops of Southbroom, KwaZulu-Natal, generously sponsored by Tect Geological Consulting and Seequent. The course was led by Prof. Michael Watkeys, a renowned structural geologist with decades of experience in unravelling the tectonic history of the Mesoproterozoic Natal Metamorphic Complex (NMC). The course drew 11 delegates from Zimbabwe, Zambia, and South Africa (Limpopo, KwaZulu-Natal, and Gauteng provinces), representing both academia and industry.

The Southbroom coastline contains outcrops of high-grade metamorphic terrane, where rocks preserve evidence of ductile deformation. Outcrops reveal a rich variety of structures which include isoclinal folds, sheath folds, boudinage, and ductile shear zones.



The program opened on Saturday, 20 September, with Prof. Watkeys introducing the factors governing the development of ductile structures, supported by practical exercises in the measurement and documentation of planar and linear features. A highlight of the training was his introduction of the “Watkeys Way” of stereonet analysis which is a clear and simplified approach to plotting folds, foliations, and lineations, and ensuring consistency between field measurements, stereonet plots, and geological maps. This method demystified stereonet use for many delegates, giving them confidence to interpret the orientation and geometry of structural features with precision and clarity. Afternoon sessions advanced into compressional ductile structures, where delegates discussed how folding and strain partitioning can localise ore shoots and fluid traps in structurally complex orebodies.



On Sunday, attention shifted to extensional deformation and shear zones, with field examples of boudin trains, shear sense indicators, and progressive overprinting fabrics. These structures provided a perfect springboard for considering the role of polyphase deformation in 3D and 4D reconstructions and their direct implications for exploration targeting in high-grade metamorphic belts.

By the end of the course, delegates had developed both a practical skillset in structural measurement and stereonet analysis and a deeper appreciation for how these structures underpin the geometry and distribution of mineralisation in relation to existing ore body types.

The course not only honed technical skills but also fostered valuable networking between geoscientists across southern Africa. Many thanks to Prof. Watkeys for his engaging, field-based teaching and innovative stereonet methods, as well as our event sponsors, Tect Geological Consulting and Seequent, for supporting this initiative that strengthens the structural geology expertise essential for orebody analysis during exploration and mining.



Tshego Majane

SAMREC/SAMVAL AND JSE REPORTING



The SAMREC/SAMVAL Compliance and JSE Reporting Workshop, held at the Johannesburg Country Club on 29-30 September 2025, welcomed 80 delegates from across the mining and exploration sectors.

The two-day event provided essential training for Competent Persons, covering the SAMREC and SAMVAL Codes, reporting standards, valuation approaches, and regulatory updates. Highlights included a celebration of 25 years of the SAMREC Code and engaging panel discussions on professionalism and the relevance of the codes. Sincere thanks to our sponsors JSE, B&S Geological, SAIMM, Minrom, Bara Consulting, Minxcon, Amis and Geo Explore Store for their generous support in making this impactful event possible.

Tshego Majane

SAMREC/SAMVAL AND JSE REPORTING

29 & 30 SEPTEMBER - JHB COUNTRY CLUB

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SAMREC/SAMVAL AND JSE REPORTING

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GSSA Team - Noleen Pauls, Tania Marshall, Sifiso Siwela, Loni Gallant, Tshego Majane, Lully Govender, Sally Nienaber



SAMREC/SAMVAL AND JSE REPORTING

29 & 30 SEPTEMBER - JHB COUNTRY CLUB



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COCKTAIL FUNCTION



TERROIR IN A TEASPOON



The connection between geology, beekeeping, and honey is beautifully expressed through the concept of "terroir" - the way a landscape's unique characteristics influence its products. The geology of a region determines its soil composition, which in turn shapes the types of plants and flowers that can thrive there.

These plants become the foraging grounds for honeybees, who collect nectar and pollen to create honey. The result is that honey from different geological regions carries distinct flavours, colours, and chemical properties: honey from quartzite-rich areas might support different flora than igneous soils, producing honey with unique mineral traces and taste profiles. Beekeepers have long understood that their bees are essentially capturing the essence of their local geology in liquid form - whether it's the delicate flavour of honey from bees foraging on heather growing in acidic, granitic soils, or the robust character of honey from wildflowers thriving in mineral-rich alluvial plains.

Perhaps it's no surprise that many geologists are drawn to beekeeping as a hobby; spending careers studying the Earth's processes and natural resources fosters a deep connection to the land and its ecosystems. This professional intimacy with nature often translates into a natural affinity for pursuits like beekeeping, where one can observe firsthand how the rocks beneath our feet ultimately influence the sweetness in our tea. In this way, geology provides the foundation, plants act as the intermediary, and bees transform it all into honey that tells the story of the land beneath it.

Cecilia Hattingh
Consulting Geologist
BSc (Hons.), Pr.Sci.Nat., FGSSA

Honey Tasting & Auction



We would like to thank Cecilia for donating the honey we auctioned at the SAMREC conference on 30 September at the Johannesburg Country Club. All proceeds collected from the auction will go towards the GSSA Mentorship picnic day. Helping us to empower and guide the next generation.

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The African Exploration showcase aims to provide an opportunity for professionals in the industry to be informed about new African exploration projects and current developments. It is an ideal opportunity to learn more about deposits that could potentially add significant economic value to the continent's pipeline.

Our speakers are from major and junior mining companies, and from large consulting companies to independents, which should ensure an interesting event.

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*The President of The Geological Society cordially
invites you and your partner to the annual*

FELLOWS DINNER

13 November 2025 | 6.30pm

Johannesburg Country Club
1 Napier Road, Auckland Park.

Speaker : Prof Roger Gibson
University of the Witwatersrand

Talk Title - Cosmic immigration - lessons from the
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geologists should (occasionally) look up

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CODES, GUIDELINES AND GUIDANCE NOTES

The SAMCODE is comprised of three Codes and three associated Guideline documents. The three codes are:

SAMREC - The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves

SAMVAL - The South African Code for the Reporting of Mineral Asset Valuation

SAMOG - The South African Code for the Reporting of Oil and Gas Resources

These documents set out the definitions and minimum standards for disclosure of information for public reporting, but can also be used by companies for private financing.

Due to the fact that diamond and industrial mineral deposits have specific reporting requirement, the SAMREC Code has two associated (commodity-specific) guideline documents (The Diamond and Precious Stones Guidelines and the Industrial Minerals Guideline). These documents expand on the peculiarities of these deposit types and requirements for their reporting. These two documents are part of the SAMREC Code and they need to be complied with when assessing these deposit types. Companies reporting on coal deposits should consider the South Africa National Standard 10320:2017 Systematic evaluation of coal exploration results, inventory coal, Coal Resources and Coal Reserves ("SANS 10320"), which is a SABS document and not a SAMCODES requirement.

A third associated Guideline document is the SAMESEG - South African guideline for the reporting of environmental, social and governance (ESG) Parameters. This document was developed to assist CPs in understanding the ESG parameters that influence reasonable prospects for economic extraction (RPEE) and the Modifying Factors. The SAMESEG guideline is not part of the Code but is provided to guide CPs in considering what may be relevant and/or material to report.

In addition to the above, the SAMCODES make allowance for the publication of Guidance Notes. **Such Guidance Notes are not part of the SAMCODES and compliance with them is not obligatory.** These notes are provided by the various Committees to provide background, context and to generate discussion on various issues.

SAMCODE Guidelines and Guidance Notes should not be confused with guidelines/requirements set out by regulatory bodies, such as the Johannesburg Stock Exchange (JSE) (or whichever Exchange exists in the jurisdiction where the company is listed or registered). Listing Rules are not part of the SAMCODES and are not developed or influenced by the Code committees.

The SAMREC, SAMVAL and SAMOG Codes have been adopted by the JSE since 2000 and are incorporated in to their Listing Rules. However, the Exchange may, at their sole discretion, include additional requirements (or waive them) for companies wishing to list (and remain listed).

South African Journal of Geology

Volume 128, Number 2, June 2025

Now available online via Geoscience World



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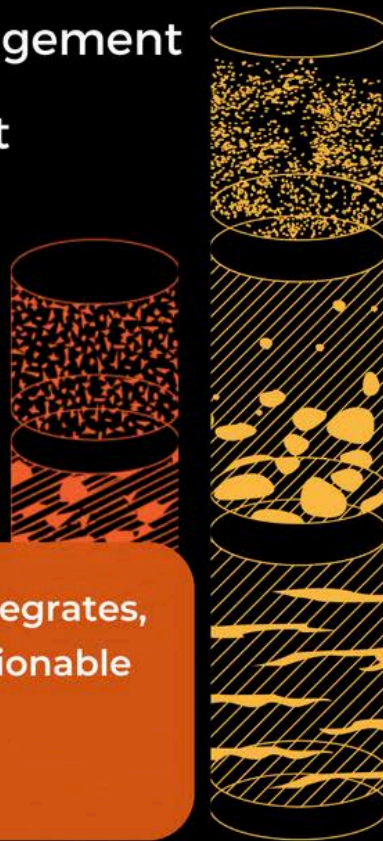
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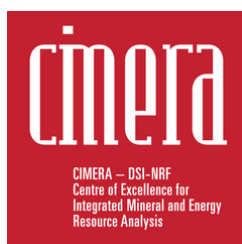
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