Geological Society of Zimbabwe

Newsletter

June 2025 No. 2 of 3 of 2025

Group photo taken at Musango Safari Camp after a talk given to African Parks' research staff, Matusadona during the GSZ Committee's retreat on Lake Kariba in May.

www.geologicalsociety.org.zw

The Geological Society of Zimbabwe, P.O. Box CY 1719, Causeway, Harare

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Editorial

This is the first Newsletter during the tenure of Chairman, Caston Musa and his new Committee, a number from which represent new faces and new blood. We welcome you and wish you well during your term of office. Your profiles and portfolios follow that of the Chairman as a means of introduction to the membership. There are certainly numerous challenges to be faced as the Society tends towards enhancing our Membership's professional status. Many of the topics were discussed during a Committee retreat to Lake Kariba, which was facilitated by Chairman Musa through the use of the Anglo American Platinum (now Valterra Platinum) houseboat, *Talisman.* These are outlined by the Chairman, and some items are expanded upon elsewhere in this Newsletter. Gayle Hanssen describes the benefits for establishing an international southern African exploration initiative (ZAXI) and the potential that this may have to enhance geological data gathering with its application to finding new ore deposits within the region. The issue relating to the delay in granting of EPO applications and the adverse effects this has on investment and the implementation of applying appropriate exploration tools in the search for new significant mining targets was discussed as was the question for professional registration for geologists. Since the May trip, the new Mines and Minerals Bill has been Gazetted. This 356 page tome will affect us in our daily work and it begs the need for all to scrutinize the implications it has for Mining and Exploration in Zimbabwe and for us as Geologists in particular. It is untimely for Forbes to write a full commentary on the mining Industry for this issue of the Newsletter and to comment on the adaptations that will have to be made once the bill is signed into Law. The section in the Bill relating to the 'Regulation of the Geology Profession' is therefore reproduced in full for your edification and comment. Communication relating to this and other aspects of the Bill can be voiced to the Chairman through our Administrator, Kundai Zvinorova at geol.soc.zimbabwe@gmail.com.

Participants on the Kariba Committee Retreat in May gave the opportunity to reach out to the National Parks/African Parks Partnership with respect to their understanding aspects of geological heritage that surrounds them.

Gayle also updates us with respect to our Membership, welcomes new Members and emphasizes the importance that the support of Institutional Membership has to the well being and functionality of our Society. Citations and abstracts are recorded in respect to our Award Winners at the AGM held in March. Martin Prendergast submitted a discussion on his paper relating to pre-Colonial iron smelting and he issues a challenge for those in the field to observe and record new finds. Kathryn Goodenough of the BGS was good enough to allow us to published her abstract, with others, on a review of lithium pegmatites in Africa, as was the Geological Society of South Africa in giving us permission to publish the abstract of Heilke Jelsma's journal paper, with Nesbitt and Fanning on our current understanding of the evolution of the Zimbabwe Craton.

Our news contributors from institutions form the backbone of the Newsletter and as always, their efforts are much appreciated as is the search for news items associated with our mining industry, which are gleaned by Kennedy Mtetwa. The communication work with contributors that is carried out by Faith Maipisi is gratefully acknowledged.

Don't forget to diarize the 24th October so that you are able attend this year's Summer Symposium.

Tim Broderick (Icositet)

Chairperson's Chat

The Geological Society of Zimbabwe (GSZ) effectively concluded the previous year with a vibrant Summer Symposium held at the Natural History Museum of Zimbabwe in Bulawayo, thanks to the efforts of Andrew du Toit and the GSZ Committee. This event, held at the end of 2024, also featured the Macgregor Memorial Lecture delivered by Professor Ben Mapani. The symposium attracted 120 members and 110 students, setting a dynamic tone for the year ahead.

Professor Mapani's lecture was complemented by presentations on various topics, including pegmatites and lithium by Judith Kinnard and Paul Nex, the geology and gold mineralization of the Gwanda Greenstone Belt by Godfrey Chagondah, and the famous Dwaars River chromitite layer of the Bushveld Igneous Complex by Dr Tony Martin. Mark Tsomondo discussed the modern kinematics and geodynamic constraints of southern Africa. The conference also highlighted the upcoming 2026 International Commission for the History of Geological Sciences (INHIGEO) Conference at Victoria Falls and called for GSZ involvement. Forbes Mugumbate presented a paper promoting the Limpopo Belt in Zimbabwe as a geological heritage site.

The year also featured two significant field trips organized by the Society for Economic Geology. One trip, led by Gayle Hanssen, focused on Zimbabwe's lithium while the other, led by myself, explored the Great Dyke retracing the famous and iconic field trip routes. These trips were highly successful, bringing valuable global expertise to Zimbabwe and opening opportunities for academic and other forms of collaboration. Following these trips, Gayle organized a successful Orogenic Gold Workshop and field trip during February 2025, which was graced by experts including Richard Goldfarb and our own Bob Foster. This led to proposals to establish a ZAXI (Zimbabwe & Regional Exploration Initiative) on the lines of the West African Initiative (WAXI).

The AGM on 8th March, 2025 introduced a new committee, which brought in new blood as we welcome Faith Maipisi, Fadzanayi Mupaya and Edgar Chiteka (Vice Chairman) whilst retaining myself as Chairman, Metrinah Mutika, Andrew du Toit, Kennedy Mtetwa, Tenyears Gumede, Benefit Mawoneka and Gayle Hanssen. The committee immediately

began preparing for the activities lined up for 2025 and 2026 including the ZAXI initiative. At the AGM, past society chairman Hillary Gumbo emphasized the importance of exclusive exploration orders for investment in Zimbabwe's mining sector, sparking a proposal to form a sub-committee to lobby Government for license issuance.

In early May 2025, the new committee held a strategic retreat on a houseboat on Lake Kariba, focusing on the agenda for 2025 and beyond. Key discussions included:

Geological Society Membership: Proposals were made to allow for School of Mines graduates to participate as full members with voting rights and committee roles.

EPO Strategy: The GSZ aims to streamline the Exploration Prospecting Order (EPO) process, advocating for a seven-year tenure and improved administrative functions.

AMIRA Global: The GSZ plans to leverage AMIRA global initiatives to benefit Zimbabwe, potentially creating a ZAXI programme to address geoscience data gaps and support exploration companies for the region.

Field Trips: Planned trips include visits to the Marange diamond field and Dinson Steel Operations at Manhize, and possibly the Limpopo Belt with its podiform chromite deposits.

It was also approved that work commence on upgrading the Geological Society Logo, by standardizing the GSZ emblem and seeking professional assistance in the society's publicity and membership drive.

The efforts on seeking membership professional registration have gained momentum and the process is likely to be delivered along with the new proposed Act. Thanks to efforts by Kennedy Mtetwa, Andrew du Toit and Forbes Mugumbate.

Also on the agenda was the Summer Symposium later during the year, which will likely be graced by International Speaker Mei Fu Zhou presenting the AGM keynote address, with a proposed trip to the Limpopo Belt and podiform chrome deposits.

The retreat also featured a lecture by Tim Broderick to the African Parks and National Parks partnership in Matusadona National Park. He shared historical aspects on the construction and history of the Kariba Dam and the regional geology, focussing on Matusadona. The talk was held at Musango Safari Camp where proprietor Steve Edwards holds a registered fossil collection and was followed by a visit to the phytosaur and lungfish type locality near Tashinga base.

Caston Musa

Profile, Caston Musa, Chairman

Caston Musa embarked on his career in geology after completing undergraduate studies at the University of Zimbabwe in 1988. He joined Anglo American Corporation as a Field Geologist, where he spent several years exploring the Zimbabwe greenstone belts for base metal, precious metal and industrial mineral deposits. His work involved extensive field geochemical work, geophysics, structural analyses and field mapping for target evaluation, reconnaissance follow-up and acquisitions, which led to a substantial expansion of Anglo American's mineral title holdings in the region.

Caston's expertise later led him to work on Exclusive Prospecting Orders (EPOs) in the Limpopo Mobile Belt, where he identified nickel, chrome, and kimberlite targets as a follow-up to airborne hyper-scanning for alteration patterns. During his tenure with the exploration and acquisition department he was part of the team that assessed and conducted due diligence on various deposits, including base metals, precious metals, coal, and industrial minerals, both within Zimbabwe and abroad.

Caston spent over 25 years working on Anglo American's Great Dyke operations, including chrome operations at Zimbabwe Alloys and PGM deposits at Unki. His work focused on understanding the structure, alteration, layering, mineralization, and landforms of the Great Dyke, culminating in the completion of his MSc Degree and thesis at Rhodes University.

In addition to his technical expertise Caston, who also achieved an MBA from Durham University, has extensive experience in mine production and planning. As a result of this experience and further study he holds a Mine Manager's Certificate of Competency. He is also qualified in Mine Environmental Control and Rock Engineering. Caston has served on various boards and committees, including the School of Mines, Mining Affairs and the Geological Society of Zimbabwe Committee.

Profiles of New Committee Members

Edgar Chiteka, Vice-Chairman

MSc, BSc Geology *(Rhodes University and University of Zimbabwe)*
Expertise: Gold | PGEs | Copper-Nickel Sulphides | REE-Lithium | Chromium
Project Development: Greenfield Exploration → Bankable Feasibility Studies (BFS)
Regions: Southern Africa (Zimbabwe, Mozambique, Botswana, Namibia and Tanzania)| West Africa (Mali, Sierra Leone)

CORE COMPETENCIES

✓ **Exploration Leadership** – Designed/executed exploration strategies for **gold** (orogenic, palaeoplacer), **PGEs** (Great Dyke - Bushveld-style reefs), **REE-Li** (pegmatites), base **metals** (Cu and Ni-sulphides – magmatic and sedimentary).

✓ **Technical Mastery** – Advanced skills in:

- Structural geology & 3D modelling.
- Geochemical surveys (soil, rock, trenching) & geophysics (magnetics, IP, EM).
- Drill program management (RC, diamond, aircore) & resource estimation.

✓ **Project Development** – Has led projects from **conceptual targeting** through **scoping/pre-feasibility** to **BFS**, optimizing ROI.

✓ **Operational Excellence** – Mine planning (open pit & underground), budgeting, and ESG-compliant resource development.

Metrinah Mutika, Honorary Secretary

Is currently Group GIS Manager at Dallaglio Investments and assistant to the Dallaglio Group's Technical Services Manager, based at the company's head office in Harare.

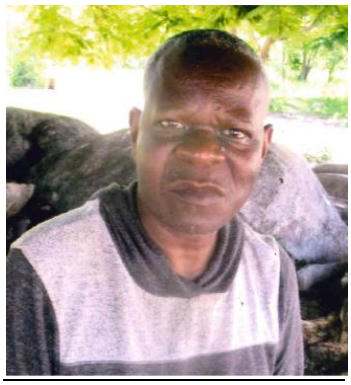
She has over 20 years of experience as a DBA Geologist (data-base administrator), having worked for Kinross Gold Mine, de Beers and ACR before joining Dallaglio. Metrinah also worked briefly in the UZ Geology Department as a Remote Sensing part-time lecturer before joining the Environment & Remote Sensing Institute of the SIRDC.

She has earnt her:
BSc General Degree in Geology & Geography from the University of Zimbabwe (UZ);
A post-grad qualification in Remote Sensing & GIS from UZ;
Her MSc in GIS from the University of Salzburg in Austria; and has an
Advanced Database Administration qualification from the Open University in the United Kingdom.

Faith Maipisi, Newsletter Liaison

Faith has 19 years of experience in Platinum Group Metals (PGMs) and Base Metals within the Great Dyke environment. She holds a Bachelor of Science degree in Geology and Physics from the University of Zimbabwe.

Faith is currently serving as the Section Head of Mineral Resources Evaluation for the Mimosa Mining Company. She joined Mimosa in 2006 as a trainee Geologist. Over the years, she has progressed through various roles, working as a Section Geologist from 2008 until 2016. In 2016, she transitioned to the Resource Evaluation team, where she took on the role of Resource Evaluation Geologist. Most recently, in 2023, Faith was appointed as the Section Head of Resource Evaluation.



Fadzanayi Bornwell Mupaya - Publications

A dynamic, highly innovative, team-spirited and performance-driven geological professional with over 30 years of experience in exploration and mining geology. Well experienced in precious metals and base metals exploration. Has an ability to communicate and motivate team members to enhance strategic goals and key objectives. He is well versed in mining and exploration regulatory frameworks of Australia and the SADC region, mainly Zimbabwe. He holds two MSc degrees in Ore Deposit Studies and Evaluation, and Exploration Geology, which makes him versatile in ore deposit target generation. Bornwell is currently, studying part time for a PhD in economic geology on the *Provenances and genesis of placer diamonds in the Umkondo Basin of Zimbabwe*, which will enhance his capacity in searching for potential mineral deposit environments by applying various techniques, especially metallogenic concepts. The focus being on placer diamonds and gold deposits.

He currently teaches various subjects but mainly Economic Geology and Ore Deposit Geology at the University of Zimbabwe. Bornwell previously worked as Regional Geologist, Harare at the Zimbabwe Geological Survey for about 18 years and then moved to manage gold and diamond exploration for 5 years with DTZ-OZGEO (Pvt) Ltd. He is a past Chairman of the Geological Society of Zimbabwe and he led a very interesting field trip to the Umkondo placer diamond deposits in Marange and Chimanimani in 2012.

Benefit Muoneka, Summer Symposium

A seasoned Geologist with a BSc Degree in Geology from the University of Zimbabwe, currently employed as a Resident Geologist by Dallaglio's Eureka Gold Mine. Having worked as a Geologist for three major gold mining companies, he has accumulated fourteen years of experience in exploration, production, and resource geology in both underground and surface mining operations.

Kundai Zvinorova - Administrator

Kundai Zvinorova completed her geology undergraduate studies in 2017 at the University of Namibia. She started out as a freelance field geologist working with many different geologists and then joined Samrec Vermiculite Mine as a junior geologist. Her work involved grade control and laboratory work for production and included field mapping and drilling supervision within the exploration programme that led to the current Shawa Mine pit extension. Kundai also worked at Todal Mine under MSA as a junior exploration geologist and then joined the Geological Society of Zimbabwe as Administrator in 2023.

Join the Geological Society of Zimbabwe Facebook Group

MEMBERSHIP UPDATE

Gayle Hanssen, Membership Secretary gaylehanssen@gmail.com

Institutional Membership Contribution

Institutional Membership is an important part of the Geological Society of Zimbabwe' support profile. In 2023, a decision was made to put their income contributions towards empowering and elevating Zimbabwean geologists on the International stage.

The GSZ would like to continue to form bonds with International Institutions and would like to fund further presentations by Zimbabweans at International Conferences in 2025.

Institutional Members

GeoAssociates (Pvt) Limited

Kavango Resources

Mimosa Mining Company

Performance Laboratories, Zimbabwe

Prospect Resources

Honorary Members

Blenkinsop, Tom; Broderick, Tim; Colvine, Sandy; Eriksson, Ken; Jelsma, Hielke; Kramers, Jan; Mapani, Ben; Martin, Tony; Master, Sharad; Mugumbate, Forbes; Nisbet, Euan; Park, Graham; Podmore, Francis; Prendergast, Martin; Wilson, Allan.

Ordinary Members

We would like to welcome the following new Members to the Society:

Madzivire	Tendekai		Matiza	Chipo		Mahanya	Moven
Ngwena	Farai		Pore	Tatenda		Murekwa	Michelle
Morris	Peter		Ncube	Mbongeni		Lesaya	Wisdom
Goredema	Beaman		Tsungarai	Fadzi		Mushayavanhu	Allen
Chingwena	Yvonne					Shindo	Kazuyasu

- **Honorary:** This membership has been bestowed on all presenters of the A.M. Macgregor Memorial Lecture, and to those who have made outstanding contributions to the Society over the years. Currently we have 15 such members.
- **Ordinary:** Professional membership by application for geologists who have a registered degree. To apply for this category, we need a copy of your degree certificate, a form sponsored by 2 current Ordinary Members, and your CV.
- **Foreign:** As above, but for those not resident in Zimbabwe.
- **Associate:** For interested parties not holding a degree but who are interested in participation.
- **Institutional:** Corporate membership and ardent supporters of the Zimbabwe Mining Industry.
- **Student:** Members of a recognized Student Body by the GSZ. Student body to submit members names and their number. For a Student Body to be recognized, the Constitution and current Committee to be submitted to GSZ.

http://www.geologicalsociety.org.zw/membership

The Membership Application Form can be down-loaded from the Membership Page of the website.

MEMBERSHIP SUBSCRIPTION FEES & RENEWAL REMINDER

(The first year's fee is the joining fee. If your application is rejected this joining fee will be forfeited)

Members (including Associate Members) US$30 annually
(or ZWL equivalent at the bank rate on the day of payment if US$ unobtainable)

Institutional Member US$500 annually
(invoices have been sent to existing members, but if your organisation is interested – please get hold of Gayle Hanssen, Membership Secretary, for an invoice - gaylehanssen@gmail.com)

Note: Foreign Members are classified as such on the basis of postal address. There is a different NOSTRO account for external payments, details for which will be provided on request.

Banking Details **OR** **Ecocash**

Geological Society of Zimbabwe
First Capital Bank (Barclays)
Kurima House Branch

Merchant Number 82758

USD Nostro FCA Domestic: 21573779436
OR
RTGS Account Number: 21576533195
OR
FOR EXTERNAL FOREX TRANSACTIONS
Account Name: Geological Society of Zimbabwe
Branch Name: NGO Centre
Account Numbers: Nostro FCA: 21573779533
Swift Code BARCZWHX

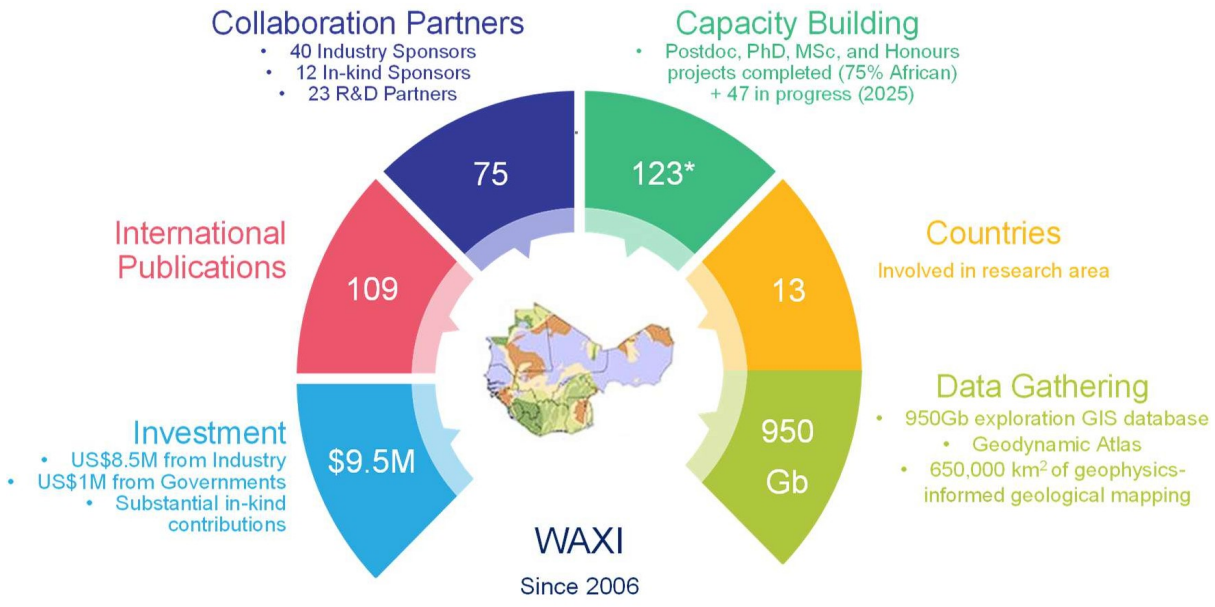
THE OFFICE IS OPEN
University of Zimbabwe – Geology Department – First Floor – Room 20
Mondays and Wednesdays from 9am to 4pm

Scan and Email your PoP to geol.soc.zimbabwe@gmail.com and kundaizvinorova@gmail.com

GSZ and AMIRA – the Birth of ZAXI and Beyond

Gayle Hanssen

Many of the GSZ members attended the Orogenic Gold Workshop championed by Rich Goldfarb and Bob Foster at the University of Zimbabwe earlier this year. Bob introduced us all to the concept of "ZAXI" – based on the very successful programme conducted in West Africa over the last 20 years by AMIRA Global, a research organization based out of Western Australia. This is known as WAXI (West African Exploration Initiative), and has set the ground work for the great mineral discovery boom in West Africa. The project covered 13 countries, was funded by 40 Industry partners and benefitted 123 MSc and PhD students, 75% of whom were from West Africa. This is charted below and shows the huge success of this initiative.



This impressed the Zimbabwean geologists, and a decision was made to make enquiries into whether a project is viable in this part of the world. To date, only a single introductory meeting has been held with AMIRA, but it is hoped that this could be the beginning of something big in southern Africa. Discussions suggested that the Kalahari Craton would be the focus, and this would incorporate not only Zimbabwe and South Africa, but Moçambique, Botswana and Namibia as well.

I hope for the years to come, we can have many publications included in this Newsletter, but this very preliminary mention is to appraise the community on this exciting project, that will need "all hands-on deck" and many resources to be brought to fruition. More about AMIRA can be found on their webpage, with the particular link to the WAXI projects on https://amira.global/projects/west-african-exploration-initiative-waxi-stage-4/

Articles and Reports

Pre-colonial Iron: Geologists and Archaeologists Co-operating

M.D. Prendergast

Field geologists engaged in mapping projects in Zimbabwe may occasionally have seen – or even have stubbed their toes (!), or just sat down to take a rest − on piles of rubble different in appearance from the surrounding rock-scape. On closer examination these would sometimes be found to comprise smelting slag, fused furnace walls, tuyères, iron ore, or varying mixtures of all four. Such observations – important evidence of past metallurgical activity − should normally (and most usefully) in the first instance be reported to the National Museums and Monuments of Zimbabwe, either at their Head Office in Harare or to any of the country's national museum. Museums can then record this data and use the information to compile maps of pre-colonial iron production, which helps identify sites for further investigation, including excavation and C14 dating.

Recent reviews of Zimbabwe's pre-colonial economy have highlighted the importance of iron mining and metallurgy and the ways in which they developed over time and were influenced by changes in adjacent regions. An important issue in the development of iron production in this country is the evident use of two contrasting modes of furnace operation − forced draught and natural draught − over time and in different areas; another is the place of iron in both local and regional trade. With respect to the latter, an intriguing question is the possibility of iron exports to the East via the port of Sofala during the Shona state of Great Zimbabwe in the 14th to 15th centuries.

Geologists with their eyes on the ground potentially have an important role to play in unearthing the evidence for pre-colonial iron production in its various forms around the country. In many cases, those seeming piles of rock may also have helped archaeologists answer questions relating to metallurgical technology as well as the economic and social roles of iron amongst the pre-colonial Shona. This work, incidentally, has been to follow in the footsteps of the country's earliest archaeologists and field geologists, whose joint interest at the time was mainly the Stone Age, as well as their successors, with varied interests, but all noted for their close co-operation when required.

In 2019, the Chamber of Mines of Zimbabwe published a book on the technical history of the mining industry in Zimbabwe with the title *Mining in Zimbabwe: From the 6th to the 21st Centuries.*[1] It included a chapter on *Pre-colonial Iron* by this author, who subsequently published a paper in the international journal *Historical Metallurgy* with the title *Iron mining and metallurgy in pre-colonial Zimbabwe: A review*[2]*;* this article is essentially a slightly revised version of the earlier chapter and was aimed at a readership without immediate or direct access to the original work. For those geologists keen to further their knowledge and understanding of this subject, and indeed anyone else, the paper is now available without charge on request to the author[3].

[1] *Mining in Zimbabwe: From the 6th to the 21st Centuries,* edited by Martin Prendergast and John Hollaway (ISBN 978-1-77906-610), The Chamber of Mines of Zimbabwe.
[2] *Iron mining and metallurgy in pre-colonial Zimbabwe: A review*, by Martin Prendergast, *Historical Metallurgy* 55(1), 2025, 17–29 https://doi.org/10.54841/hm.670.
[3] Email: *mprendergast277@gmail.com*

A.E. Phaup Award Citation, 2024
Tony Martin

Sub-committee - Andrew du Toit, Brian Mapingere, Tony Martin, Houda Bouammar and Maideyi Meck

The Award shall consist of a suitably inscribed scroll and shall be presented to the Author or Authors who in the opinion of an appointed sub-committee, made an important contribution to the geology of Zimbabwe by publication of a paper in a recognised scientific publication. The Author(s) need neither be a Member(s) of the Society nor resident in Zimbabwe.

Nine papers were published in 2024 that contributed to the geology of Zimbabwe – which must be a record number in recent years. All are of considerable merit and highlight the interest in research in this country and its importance in understanding geological processes.

In the eighteenth century a famous poet referred to the geologists who wandered the hills of Scotland breaking rocks as "road makers gone mad, who say it is to see how the world was made". Some 250 years later, that observation remains valid.

Two papers published in 2024 were on recent palaeontological finds in the Zambezi Valley detailing two new fossil species in the Triassic Pebbly Arkose Formation of the Karoo Supergroup. The remainder focussed on the Archaean.

Mugumbate's paper highlighted the many world-class exposures of the Belingwe Greenstone Belt while calling for it to be declared a Geoheritage Site. This paper cites 81 references, underlining the interest in the unique geology of this Greenstone Belt and the fact that Zimbabwe is one of the most important Archaean research terranes in the world.

Hoffman *et al* published new age determinations on the Ngezi Group of the Belingwe Belt and presented a model for its origin involving stretching of the granitic crust allowing emplacement of the thick komatiitic and basaltic successions, without a mention of the word ophiolite.

Further additions to the Archaean age database were presented by Chagonda *et al* confirming the 2.62 Ga age of the Bikita pegmatite while 2.0 Ga muscovites from the Mweza Belt pegmatites reflect a Palaeoproterozoic overprint associated with the North Marginal Zone of the Limpopo Belt.

Erikson and McClung discussed the origins of quartz-rich sedimentary rocks in a number of sedimentary basins including Archaean examples from Zimbabwe such as the Manjeri Formation. An atmosphere dominated by carbon dioxide played a large part in the weathering process with intrabasinal reworking by tides and waves to concentrate the quartz-rich sands.

Jiaji *et al* focussed on the presence of possible, deeply-subducted slabs of crustal material that have been detected by seismic tomography in the lower mantle under the southern half of Africa. This paper incudes evidence from, but is not specific to, Zimbabwe.

Dumisa *et al* presented an analysis of the orbicular granite at Diana's Pools in the Matobo Granite based on samples subjected to detailed petrographic, geochemical and isotopic analysis to determine the very complex petrogenesis of the orbicules.

Finally to Rollinson *et al* and their contribution on the origin of the Chilimanzi potash-rich granites, which cover a considerable portion of the Zimbabwe Craton. Based on their chemistry, it has long been assumed that these come from partial re-melting of precursor rocks such as those of tonalite–trondhjemite–granodiorite (TTG) composition and metasediments. However, TTGs contain little potash feldspar and in their paper the authors address what they refer to as the late 'Archaean granite paradox' – where does the potassium come from? They invoke hydrothermal potassic enrichment of a basaltic protolith to the TTGs and the influences of fractional crystallisation and/or crustal contamination of the TTG magmas. This paper addresses one of the fundamental problems of the formation of the Zimbabwe Craton and is, in the opinion of the sub-committee, the most important contribution to the geology of Zimbabwe in 2024. However, the volume paradox remains: how much restite of TTG or rocks of sedimentary origin is required at a 5 to 15% partial melt to produce the potash granites and where are the remnants of this?

As with all research, conclusions lead to questions and the Geological Society thanks all 27 authors and co-authors who have contributed to the research done in Zimbabwe in 2024 and long may it continue.

It is with great pleasure that the Geological Society of Zimbabwe presents the A.E. Phaup Award to Hugh Rollinson, Godfrey Chagondah and Axel Hofmann for their outstanding contribution to our understanding of the geology of Zimbabwe.

50th Anniversary Invited Review

The late Archaean granite paradox: A case study from the Zimbabwe Craton

Hugh Rollinson, Godfrey Chagondah, Axel Hofmann

Late- to post-tectonic high-K granites are found in many Archaean cratons and are thought to be the product of a major, crustal-scale melting event in the underlying TTG crust leading to the stabilisation of the craton. However, despite the TTG melting model being an obvious explanation for the origin of late-Archaean high-K post-tectonic granites, experimental studies show that TTGs are insufficiently fertile to produce large volumes of potassic granites. This is the late Archaean granite paradox. Here we argue that the paradox can be resolved if the TTG protolith is more potassic than might be expected from a straightforward partial melt of an Archaean basalt. We propose that a likely fertile protolith for late Archaean granites is TTG crust which has incorporated a partial melt of older felsic crust during its emplacement. This hypothesis is validated with a case study from the Neoarchaean rocks of the Zimbabwe Craton.

This paradox reflects a more fundamental problem when considering the origin of Archaean TTGs, for the 'enriched' basaltic protolith invoked in many models of TTG genesis is not abundant in Archaean terrains, nor should it be if the basaltic protolith is a melt of primitive or depleted mantle. This means that fertile, K-rich, TTGs are not simply the product of the melting of a basaltic protolith, but involve an additional process. Three models of TTG petrogenesis are discussed which might lead to K-enrichment in the melt – the hydrothermal potassic enrichment of the basaltic protolith and the influences of fractional crystallisation and/or crustal contamination on the TTG magmas. We conclude that to produce a sufficiently fertile, K-rich TTG source in the Zimbabwe Craton the contribution of a melt phase from older TTG crust is most consistent with the major and trace element and isotopic geochemistry.

Precambrian Research 410 (2024) 107491, 11pp. https://doi.org/10.1016/j.precamres.2024.107491

Exploring our current understanding of the geological evolution and mineral endowment of the Zimbabwe Craton

H.A. Jelsma, R.W. Nesbitt and C.M. Fanning

Abstract

A.M. Macgregor (1888-1961) is remembered for his enormous contribution to geology. His maps changed the course of geological thinking in southern Africa. Following in his footsteps we examine aspects of our current understanding of the geological evolution of the Zimbabwe Craton and, using new SHRIMP U-Pb ages of zircons from felsic volcanic and plutonic rocks from northern Zimbabwe and unpublished data related to the seminal paper by Wilson et al. (1995), a synthesis is proposed for the formation of the Neoarchaean greenstones. The data suggest marked differences (lithostratigraphy, geochemistry and isotope data, mineral endowment and deformational history), between Eastern and Western Successions, which indicate fundamentally different geodynamic environments of formation. The Eastern Succession within the southcentral part of the craton, largely unchanged in terms of stratigraphy, is reminiscent of a rift-type setting with the Manjeri Formation sediments and overlying *ca.* 2745 Ma Reliance Formation komatiite magmatism being important time markers. In contrast, the Western Succession is reminiscent of a convergent margin subduction-accretion system with bimodal mafic-felsic volcanism and accompanying sedimentation constrained to between 2715 and 2683 Ma. At *ca.* 2670 Ma, a tectonic switch likely marks the onset of deposition of Shamvaian felsic volcanism and sedimentation. The Shamvaian resembles pull-apart basin successions and is dominated by deposition of a coarse clastic sedimentary succession, with deposition likely constrained to between 2672 and 2647 Ma. The late tectonic emplacement of small, juvenile multiphase stocks, ranging in composition from gabbroic to granodioritic was associated with gold ± molybdenum mineralisation. Their emplacement at 2647 Ma provides an upper age limit to the timespan of Shamvaian deposition. Amongst the youngest granites are the extensive, largely tabular late- to post- tectonic *ca.* 2620 to 2600 Ma Chilimanzi Suite granites. These granites are characterised by evolved isotopic systems and have been related to crustal relaxation and anatexis following deformation events. After their emplacement, the Zimbabwe Craton cooled and stabilised, with further deformation partitioned into lower-grade, strike-slip shear zones, and at *ca.* 2575 Ma the craton was cut by the Great Dyke, its satellite dykes and related fractures.

SOUTH AFRICAN JOURNAL OF GEOLOGY 2021 • VOLUME 124.1 PAGE 279-310 • doi:10.25131/sajg.124.0020

Macgregor, 1947	Wilson, 1979	Wilson et al., 1995	This paper		Geochronology	Intruded by:
Great Dyke					2574 ± 2 Ma	
Upper Series → Shamvaian System (e.g., Stagman, 1978)	Shamvaian Group	Shamvaian Supergroup	upper Shamvaian		>2647 Ma	Chilimanzi Suite: ca. 2620-2600 Ma Bindura Stock: 2647 Ma Mazowe Stock: 2647 Ma
			HS	Passaford Vent	2643 Ma	
			U6	lower Shamvaian — Lake Kyle Vent	2661 Ma	
				Shamvaian volcaniclastics / porphyries	2666-2647 Ma	
Lower Series → Bulawayan System (e.g., Stagman, 1978)	Upper Greenstones / Upper Bulawayan Group	Bulawayan Supergroup	Upper Bulawayan	U5	2683 Ma 2688 Ma 2696 Ma 2698 Ma 2697 Ma 2702 Ma 2715 Ma	Sesombi Tonalite: 2672 Ma Wedza Suite: 2704 Ma
				U4W U4E		
				U3	≥2700 Ma	Mashaba-Chibi dykes: 2700 Ma
				U2	ca. 2745 Ma	
				U1	>2745 Ma	Mutare Tonalite: 2741 Ma
	Lower Greenstones / Lower Bulawayan Group		Lower Bulawayan	L4	2803-2788 Ma 2805 Ma 2799-2788 Ma	Somabula Tonalite: 2752 Ma Gwenoro Dam gneiss: 2769 Ma
		Belingwean Supergroup	Upper Belingwean	L3		
			Lower Belingwean	L2	2880-2870 Ma 2870 Ma 2904 Ma	Chingezi Suite: 2850 Ma Ngezi Tonalite: 2875 Ma
				L1	2990 Ma ca. 3000 Ma	Rhodesdale Gneiss: 2946 Ma
Magnesian Series → Sebakwian System (e.g., Stagman, 1978)	Sebakwian Group				> 3375 Ma 3475 Ma 3554 Ma 3565 Ma	Mont d'Or Granite: 3350 Ma Mushandike Granite: 3375 Ma

Western Succession: e.g., What Cheer Fm, Passaford Fm, Avalon Fm, Surprise Fm, Maparu Fm, Maliyami Fm, Iron Mask Fm

Eastern Succession: Cheshire Fm, Zeederbergs Fm, Reliance Fm, Manjeri Fm, Koodoovale Fm, Arizona Fm, Eldorado Fm, Brooklands Fm, Bend Fm, Mafic Fm, Redcliff Jasp. Fm, Hokonui Fm, Manica Felsic Fm, Buchwa Quartzite, Byute Fm

Sebakwe Proto-Craton, Shabani Gneiss, Tokwe Gneiss, Sebakwe River Gneiss

Table 1. Stratigraphic nomenclature employed by various workers for the greenstone belts of Zimbabwe: Macgregor (1947, 1951), Stagman (1978), Wilson (1979), Wilson et al. (1995), Jelsma et al. (1998) and this study.

Lithium Pegmatites in Africa: A Review

K. M. Goodenough, R. A. Shaw, A. M. Borst, P.A.M. Nex, J. A. Kinnaird, M. van Lichtervelde, A. Essaifi, L. Koopmans, and E. A. Deady

Abstract

Electrification of transport plays a vital role in the energy transition, which is needed to tackle the pressing challenge of climate change. Lithium is a critical raw material for the batteries that are used to power electric vehicles. Currently, about 60% of the world's lithium is sourced from rare metal pegmatites, with the top three producing countries (Australia, Chile, China) accounting for more than 80% of global supply. There is limited legal extraction of lithium on the African continent, with Zimbabwe currently being the only country actively mining lithium at large scale, but Africa is host to significant, untapped lithium resources. This paper provides an overview of lithium pegmatites in Africa, describing the key features (e.g., zonation, mineralogy, and paragenesis) of pegmatites from different tectonic settings and of varying ages. It is notable that each of the key orogenic events on the continent has a distinct lithium pegmatite fingerprint. Archaean pegmatites are typically petalite dominated; unzoned spodumene pegmatites are common in the Paleoproterozoic of the West African Craton; Mesoproterozoic pegmatites in Central Africa are typically tin-tantalum rich, which is a function of the high degree of albitization observed in many of these pegmatites; and complex zoned pegmatites are more common in the Neoproterozoic to Palaeozoic orogens. Many of these pegmatites have a common paragenesis that can be broadly described in four stages (magmatic crystallization, albitization, greisenization, and low-temperature alteration), but there is a need to understand what controls the wider variation in pegmatite type and economic mineral assemblages. The continent of Africa provides an excellent natural lab for placing pegmatites into their broader geologic context in order to develop better mineral deposit models.

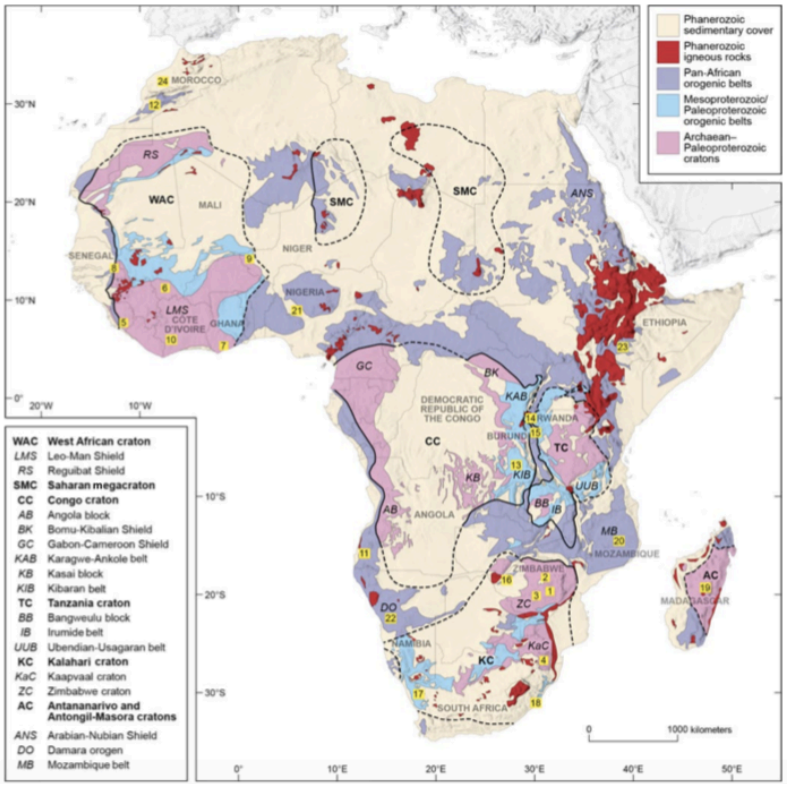


Fig. 3. Simplified geologic map of Africa, showing the major cratons and mobile belts. Numbered localities are pegmatite fields mentioned in the text: 1 = Bikita, 2 = Arcadia, 3 = Zulu, 4 = Archaean pegmatites of South Africa/ Eswatini, 5 = Archaean pegmatites of Sierra Leone, 6 = Goulamina and Bougouni, 7 = Ewoyaa, 8 = Saraya, 9 = Dibilo, 10 = Issia, 11 = Giraúl, 12 = Zenaga, 13 = Manono-Kitotolo, 14 = Gitarama-Gatumba and Musha-Ntunga, 15 = N'dora, 16 = Kamativi, 17 = Orange River, 18 = Highbury, 19 = Madagascar, 20 = Alto Ligonha, 21 = Angwan Doka, 22 = Damara belt, 23 = Kenticha, 24 = Sidi Bou Othmane.

Economic Geology (2025) https://doi.org/10.5382/econgeo.5133

THE GEOFFREY BOND AWARD WINNER
FANUEL TANAKA MAKUNGUWO
For the best BSc Honours Geological Sciences Project presented in 2024

WEDZA FAULT ZONE AND ITS IMPACT ON SOUTH HILL NORTH SECTION ORE RESOURCE, MIMOSA MINE

ABSTRACT
The research aimed to provide detailed characteristics of the Wedza Fault Zone, other secondary geological structures and their impacts on mineral resource mine-ability in the South Hill North Section at Mimosa Mine along the Great Dyke of Zimbabwe. The main objectives of the research were to determine underground fault expressions on surface and ground conditions within the South Hill North Section mineral resource. Research data was compiled through underground mapping, geotechnical core logging and core log analysis, digital elevation modelling, ground penetrating radar scanning and rock mass rating. Sub-vertically north dipping major and minor faults with talc and serpentinite infill material were observed during underground mapping. Cumulative faulting, crushed zones, continuous ore body displacements were defined through geotechnical core logging and surface borehole core logs analysis. Through digital elevation modelling, higher and lower elevated zones were delineated which mark the surface expressions of major faults. Secondary geological structures such as shallow dipping planes and sub-parallel planes were observed on ground penetrating radar scans. Rock mass rating calculations show that the ground is predominantly of ground control districts D and E. In response to the objectives from all the observations and findings, the research concluded that the local topography falls within a graben terrain dominated by the Wedza Fault and associated sympathetic faults. The fault zone is dominated by reverse faults due to progressive over-thrusting of the Zimbabwe and Kaapvaal cratons. Abrupt changes in surface elevation appear to be fault expressions within the terrain. The occurrence of high fault and joint frequencies within small spanned zones increases waste generation during development and increases the size of bracket pillars while the resource is mineable.

An investigation into the geological controls of gold mineralization at Pickstone Mine

Lovemore Banda
Winner of the J.F. Wilson Award for the best Honour's Degree Geology Project adjudged in 2024 that was submitted in the Department of Geosciences, Midlands State University

ABSTRACT
The area investigated sits on the Archaean Chegutu Greenstone Belt in Mashonaland-West Province, approximately 100km southwest of Zimbabwe's capital city, Harare, and 20km south-southeast of the town of Chegutu.

The project area mainly comprises argillaceous rocks, which include but are not limited to siltstone, black shale and mudstone occupying flat terrain to the north, and arenaceous rocks, which are more resistant to denudational processes, such as gritstone and quartzite

forming the hills in the southern portion of the project area. The host rock (banded jaspilite) occurs in the central part of the project area as an interlayered sediment within the 3.5Ga to 2.7Ga-old greenstones, that reflect a regional fabric trending from east to west and which is steeply dipping to the north at approximately 80 degrees.

Rocks in the study area have been subjected to both regional and local metamorphism, which is characterized by chlorite and sericite alteration that is intensely foliated with the overall grade of metamorphism considered to be in the upper greenschist facies.

The aim of the project was to determine the relationship between lithology, alteration, geological structure and gold distribution in the Pickstone-Concession trend. This was achieved through geological mapping, diamond drilling, core logging, channel sampling, petrographic analysis, fire assaying, QAQC (Quality Assurance and Quality Control) and geological modelling.

The results from this investigation show that mineralization is both lithologically and structurally controlled in the Pickstone-Concession trend. Gold is mainly concentrated in silicified banded jaspilite. Faults cutting across the regional fabric are uncommon, but one northwest trending lineament, known as the Mombe Fault, was observed. From fire assay results, gold appears to be concentrated in the pressure shadows of this fault.

The Keith Viewing Award for 2024

Each year the person summarising the Summer Symposium, in this case Prof. Sharad Master, nominates the a winner of the Keith Viewing Award, which is given for the best presentation at the annual summer symposium. Best can be defined in a number of ways - presentation, preparation, scientist content, innovation effort etc. It tends not to be awarded to the pros - the keynote speakers nor the professors who are experts at making this sort of presentation. This year we had quite a few of those including Judith Kinnard, Paul Nex, Sharad Master, Tony Martin and of course we had our Macgregor Memorial Lecturer, Ben Mapani.

This year the award goes to a presentation that was clear, well presented, well prepared and lucidly delivered by William Collett. Sharad's comments were that *'his sharing of the complete exploration history* [of the Dokwe gold discovery]*, including the geophysics and geochemical exploration methods of this most important undercover gold deposit was refreshing, informative and very much appreciated by the Geological Community of Zimbabwe.'* Particularly impressive is that the presenter is a recent graduate and mature student.

William Collett's abstract for his presentation, 'The Dokwe Gold Discovery' was published in the February Newsletter and can be read on the Society Website.

News

Geology Section: Department of Chemistry and Earth Science, University of Zimbabwe

Submitted by Maideyi Meck

Department Overview

The Department of Geology continues to function steadily. However, we are experiencing a noticeable decline in enrolment for the BSc Honours in Geological Sciences program. For the upcoming August intake, only 10 students have selected the program as their first choice—this is in stark contrast to previous years when the program (formerly named "Geology") attracted over 100 first-choice applicants.

Our **Thin Section Laboratory** is fully operational and offers thin section preparation services. Interested parties can contact **Ms E. Hamah** or **Mr D. Mupambo** for assistance. Efforts are ongoing to foster integration with the **Geological Survey of Zimbabwe**, with a view to enabling a shared use of their state-of-the-art thin section making facilities to support both teaching and research.

The **National Centre for Groundwater Research and Training**, hosted in the department, is at an advanced stage in its establishment. Webinars on hydrogeology and related fields are being planned with support from the **International Association of Hydrogeologists (IAH)**. Contributions, ideas, and participation from the geological community are welcome—please reach out to **Prof. Maideyi Meck** at *maideyimeck@yahoo.com*.

We still have 100 hard copies of *"Dambo Farming in Zimbabwe"* by **Dr. Richard Owen** available. No copies have been collected to date. Interested members may obtain a free copy by contacting Ms. Hamah.

UniWater Canada has generously offered to donate books to the department. These will be made available to the broader geological community once received.

The department recently participated in the **National Stakeholder Dialogue on Groundwater**, supported by **SADC-GMI**.

The call for applications is now open for the **Master's in Exploration Geology** program, which is fully funded by **His Excellency**.

The department has also been invited to host the **first SADC-GMI Summer School** from **28 July to 10 August 2025**.

Teaching and Learning

Teaching continues under the modular system—three weeks of instruction followed by one week of examinations. While **academic staff are currently on industrial action**, we

remain hopeful that the impasse will be resolved soon. Two modules are still pending delivery and examination at each level (Parts 1 to 4), including the Master's level.

A total of **26 students enrolled under the Pan-African Minerals University of Science and Technology (PAMUST)** are currently undertaking their Master's research projects. Industry-support during this period is appreciated

The department is appealing to industry professionals to assist with teaching in the **Master's in Exploration Geology** program.

Staff Updates

- **Mr B. Mapingire** has left the department to pursue PhD studies in Canada.
- **Ms L. Mugariri** has pre-registered for PhD studies in Hydrogeology.

Research Activities and Opportunities for Collaboration

The department is currently pursuing several research projects and welcomes collaboration from industry partners:

1. Characterization of Polymetallic Copper deposits in Zimbabwe;
2. Agrogeology – Using rocks for soil and crop improvement;
3. Geo-hydraulic properties and aquifer vulnerability of the Middle Sabi Aquifer;
4. Assessment of geothermal wellhead power potential and links to seismicity and geotechnology;
5. Coal appraisal in the Zambezi Valley;
6. Critical raw materials appraisal.

Staff Contact details as of June 2025:

Name	Position	Email	Cell Phone	Office Number	Office Phone 024-2303211 (Extension)
Dr P. Mushonga	Chairperson	mushonga777@gmail.com	0774063113	Chemistry	
Prof. M.L. Meck	Lecturer	mabvira@science.uz.ac.zw	0772906612	25	15046
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Mr D. Mupambo	Technician	DIDYMUS@science.uz.ac.zw	0772916652	16	15024
Ms S. Gorogodo	Messenger/Cleaner		0772390026		15029

Mennell Geological Society

Report as of May 2025

Compiled by Chibaya Pharisie (Mennell Geological Society Chairman)

Edited by F.B. Mupaya (Patron)

As the Mennell Geological Society we would like to express our sincere gratitude to the Geological Society of Zimbabwe for the unwavering support that you give us every year. Your funding has enabled us to successfully execute some of our key activities, and we are truly appreciative of your contribution to our mission. As we move forward into 2025, we are excited to share our plans with you as our mother society. We discussed many issues last year with a goal of improving the flow of our society's activities starting from this year. We have actually set ourselves in motion for this year by discussing the geology of some areas that we intend to visit.

This year the Mennell Geological Society aims to:

1. Collaborate with all local universities to promote geological research and education by discussing geological burning issues.
2. Host workshops focused on geological mapping and exploration techniques to sharpen upcoming geoscientist's exploration skills.
3. Organize at least two field trips to explore the geology of the proposed areas that include:
    - The **Limpopo Mobile Belt** - to appreciate the geology of the northern part of the Limpopo Mobile Belt.
    - **Chinhoyi –** exploring the Eldorado shear zone and part of the Magondi Belt.
    - **Muzarabani** – appreciate the geology and hydrocarbon potential of the Zambezi basin.

Activities (February-April, 2025)

During the month of March and April we convened a couple of meetings, discussing various issues about different parts of the Zimbabwe Craton. Some of the sub topics covered included the stratigraphy within the Zimbabwe Craton, evolution of the Limpopo Mobile Belt and we also discussed a paper on "Granite paradox" by Hugh Rollinson, Godfrey Chagondah and Axel Hofmann, 2024.
We also have two Mennell students who have sent their abstracts to SEG for review. If accepted these students will have to attend the conference in Australia this year in order to present their findings.

As we need to explore the above mentioned areas, we still appeal to our mentors in the Geological Society of Zimbabwe to help us with funds for these field trips.

Contact us on

Mr Mupaya (Lecturer), fbmupaya@gmail.com, the Patron

Pharisie Chibaya, pchibaya11@gmail.com, 0787757410, the Chairman

Beauty Gwitira, beautygwitira19@gmail.com, 0776445144, the Secretary

Mennell Geological Society Executive 2025

Position	Name and Surname	Email
PATRON	*Mr F B Mupaya*	*fbmupaya@gmail.com*
COORDINATOR	*Mr S Mabhanga*	*smabhanga@science.uz.ac.zw*
CHAIRPERSON	*Mr Pharisie Chibaya*	*pchibaya11@gmail.com*
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COMMITTEE MEMBER LEVEL 3	*Mr Pride Musasa*	*pridemusasa2@gmail.com*
COMMITTEE MEMBER LEVEL2	*Mr Calvin Chikondo*	*calvinchikondo@gmail.com*
COMMITTEE MEMBER LEVEL 1	*Miss Thelma Selemani*	*selemanithelma953@gmail.com*

MIDLANDS STATE UNIVERSITY

FACULTY OF ENGINEERING & GEOSCIENCES
ZVISHAVANE CAMPUS

Updates from the Department of Geosciences

1. Introduction

The MSU Geosciences Department offers three undergraduate programs:

- **BSc Honours in Applied Geology**
- **BSc Special Honours in Applied Geology**
- **BSc Honours in Geophysics**

Each program accommodates a maximum of 30 students per intake, with one intake per year for all undergraduate programs.

Additionally, the department currently has **five registered MPhil candidates**, while a sixth is in the initial stages of their application process.

2. Staffing

The department currently has 18 teaching staff and 4 non-teaching staff as listed in Table 1.

Table 1. List of teaching and non-teaching staff at the Geosciences Department, Midlands State University - June, 2025

Names	Position	Email Address
TEACHING STAFF		
Mr P Chifoto	Lecturer	chifotop@staff.msu.ac.zw
Ms P Chima	Chairperson/ Lecturer	chimap@staff.msu.ac.zw
Mr E Chinwada	Lecturer	chinwadae@staff.msu.ac.zw
Mr O Chingobo	Lecturer	chingoboo@staff.msu.ac.zw
Mr Dewah	Lecturer	dewahh@staff.msu.ac.zw
Dr T Dzvinamurungu	Lecturer	dzvinamurungut@staff.msu.ac.zw
Miss A Gumbo	Teaching Assistant	gumboa@staff.msu.ac.zw
Miss T Gwavuya	Teaching Assistant	gwavuyat@staff.msu.ac.zw
Dr A Mamuse	Senior Lecturer	mamusea@staff.msu.ac.zw
Dr P Mandingaisa	Lecturer	mandingaisap@staff.msu.ac.zw
Miss K Moyo	Teaching Assistant	kmoyo@staff.msu.ac.zw
Mr D Munyikwa	Lecturer	munyikwad@staff.msu.ac.zw
Ms R Musinga	Lecturer	musingar@staff.msu.ac.zw
Dr M Mutakaya	Lecturer	mutakayam@staff.msu.ac.zw

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Mr LT Senderai	Lecturer	senderayilt@staff.msu.ac.zw
Ms A Wazulu	Teaching Assistant	wazulua@staff.msu.ac.zw

NON-TEACHING STAFF

Miss A Musoro	Technician	musoroa@staff.msu.ac.zw
Mr T Mwaramba	Technician	mwarambat@staff.msu.ac.zw
Mr L Ndhlovu	Technician	lndlovu@staff.msu.ac.zw
Mr F Zihanzu	Chief Technician	zihanzuf@staff.msu.ac.zw

3. Research

Battery metals are a key research focus within the department, with five out of six MPhil candidates specialising in lithium or nickel studies, supported by both local and international funding. Additionally, hydrogeology and environmental research are gaining momentum as emerging priorities, engaging multiple faculty members and students in impactful projects.

4. Student Activities

The Midlands State University Student's Geological Society (MSU-SGS), an affiliate of the Geological Society of Zimbabwe, is dedicated to cultivating a deeper understanding and interest in geosciences among students. As a vibrant platform for learning, networking, and practical engagement, the society fosters academic excellence, professional growth, and collaboration with peers, institutions, and industry experts. Comprising about 90 members, the MSU-SGS is steered by a 12-member executive team responsible for curating a diverse portfolio of events, which include workshops, interdisciplinary seminars, and field trips. Through these activities, the society aims to:

- Enhance academic and professional development among its members;
- Promote collaboration and knowledge-sharing with other institutions and industry experts; and
- Provide opportunities for practical engagement and hands-on experience in the field of geology.

By pursuing these objectives, the Midlands State University Student's Geological Society strives to create a dynamic and supportive community that inspires students to excel in their academic and professional pursuits.

4.1 Student's Report: The Magondi-Great Dyke Excursion

In April 2025, Level 2.2 Applied Geology students from the Geosciences Department, Midlands State University embarked on a five-day field trip covering Zimbabwe's Magondi Belt and Great Dyke. The expedition, expertly guided by Dr. P. Mandingaisa and Geosciences Chairperson Miss Chima and with the support of Teaching Assistant Miss Tinotenda Gwavuya, provided invaluable hands-on experience in essential field techniques including rock identification, structural mapping, and environmental interpretation. Through direct engagement with diverse geological formations, students developed

professional competencies while gaining appreciation for Zimbabwe's remarkable geological heritage.

The field investigation began in Chinhoyi District where students examined sedimentary and metamorphic systems, including the Manyame River's striking meta-polymict conglomerates displaying characteristic ENE-WSW foliation. Detailed analysis of clast composition sparked lively debates about palaeoenvironmental conditions, while at the Alaska Mine, students documented malachite-stained dolostones that revealed both hydrothermal mineralization processes and the environmental legacy of an abandoned mine. Grain-size studies of arkosic sandstone outcrops provided crucial insights into sediment transport history and depositional environments, reinforcing theoretical concepts from classroom learning.

Moving to Hurungwe District, the focus shifted to crystalline basement rocks and economic geology. Students analyzed the Karoi Gneiss's distinctive textures to understand deformation processes during the Magondi Orogeny, while examinations of coarse-grained pegmatite intrusions highlighted Zimbabwe's potential for rare-element mineralization. The existence of the Lynx Graphite Mine within paragneisses demonstrates the important relationship between metamorphic processes and graphite mineralization.
The field trip's most challenging and rewarding component came during the independent mapping exercise near Chinhoyi, where students mapped slates, phyllites and quartzites while interpreting complex fold and fault systems. This practical experience in correlating lithological units across metamorphic gradients proved instrumental in developing professional confidence and spatial reasoning abilities.

The expedition ended with a mapping exercise of the Great Dyke around the Mapinga Pass. Students observed textbook examples of cumulate textures in pyroxenites and documented serpentinization features that illustrated retrograde metamorphic processes.

Through this immersive field experience, students gained not only technical skills but also a deeper understanding of the environmental considerations and economic potential inherent in geological systems.

4.2 ***Student Meetings***

On 29th May 2025, a handover-takeover meeting was held to officially transfer responsibilities to the incoming Level-4 and Level-2 students. The society extends its heartfelt appreciation to the outgoing Level-2.2 and Level-4.2 students, led by Chairperson Mackan Rugara together with his Vice-Chairperson and executive members, for their outstanding leadership that propelled the society to greater heights. Their tireless efforts and commitment have yielded significant achievements, and their legacy will undoubtedly inspire future generations.

4.3 ***Upcoming Student Activities***

The Midlands State University Student's Geological Society has planned a series of events for the upcoming second semester from August to December 2025. The events will commence with a 'Welcome Back' meet-and-greet event, followed by a geological mapping excursion around Zvishavane. More society field excursions are on the cards and will be confirmed in due course.

The society will also undertake outreach programs, fundraising campaigns and social events aimed at promoting academic excellence, professional development, and community engagement among its members.

5. Conclusions

With a dynamic blend of experience and expertise, the MSU Geosciences Department is well-positioned for sustainable growth. By prioritising student engagement, hands-on fieldwork, innovative research, and strong collaborative partnerships, the department is poised to evolve into a world-class centre of excellence in geosciences.

Compiled By:
Antony Mamuse, Trisha Paraziva and Tinotenda Gwavuya

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Department of Mining and Processing Engineering

Research. *Innovation.* *Sustainable Development.*

As we approach the end of the academic year, we are pleased to report significant progress in this semester. Our students have successfully completed the first block exams, demonstrating commendable dedication and academic excellence. In our continuous effort to enhance the skills and knowledge of our members and students, the university is proud to announce the launch of two new short courses that started this semester:

Artisanal and Small-Scale Mining (ASM): This course aims to provide comprehensive insights into the practices, challenges, and sustainable approaches within the ASM sector. It is designed to equip participants with practical knowledge to improve safety, efficiency, and environmental stewardship in small-scale mining operations.

Artificial Intelligence and Fuzzy Logic in Mining: Recognizing the growing role of technology in our field, this innovative course will explore the application of AI and fuzzy logic techniques in geological data analysis, mining and decision-making processes. Participants will gain valuable skills to leverage cutting-edge tools for enhanced geoscientific and mining outcomes. Both courses are tailored to meet the evolving demands of the mining and geological sectors, ensuring our members remain at the forefront of industry developments.

To bridge the gap between academic learning and real-world experience, we are actively seeking partnerships with industry players to provide industrial attachment placements for our students. These attachments are vital for hands-on training, professional growth, and fostering industry-ready graduates. We invite mining companies, geological consultancies, and related organizations to collaborate with us by offering internship opportunities. Your support will not only enrich the student's learning experience but also contribute to the development of a skilled workforce ready to drive Zimbabwe's mineral sector forward.

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Contributed by Hazel Chibaya

ZIMBABWE SCHOOL OF MINES

Serving the SADC mining industry

Our update for this issue is sadly missing, but we look forward to a progress report in our October Newsletter.

Submitted by Fyrence Ndebele *fndebele@zsm.co.zw*

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF EARTH SCIENCES

We are happy to share with you that the National University of Science and Technology (NUST), on 20th March 2025, established the Earth Sciences Department under the Faculty of Applied Science. The new department will host all current Earth Science-related academic programmes. That is the BSc (Hons) in Earth Science and the MSc in Geophysics degree programmes. The department will develop new and bold strategies that will contribute significantly towards the growth of the academic discipline of Earth Science at NUST. The present staff complement of the department is as shown below.

Currently, the Earth Sciences Department is receiving applications for both the BSc (Hons) in Earth Science and MSc in Geophysics degree programmes starting with the August 2025 Intake. Details on how to submit applications and more information can be found on the NUST Website. The department fully participated at the Career Fair held at NUST from 13th to 15th May 2025, during which period the academic programmes and career path for our students was showcased.

Our third-year Part III BSc (Hons) in Earth Science Degree Programme students are on their industrial attachment training programme. The success of our Industrial Attachment Training Programme depends very much on the willingness of industries to embrace our students. Accordingly, we are kindly requesting our industry partners to avail internship opportunities for these students.

The department had a contact visit by Mr Bernard Siachngoma from MSU.

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Submitted by Dr. Brassnavy Manzunzu

Geological Survey Department

Ernest T. Mugandani
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UPDATE ON KEY DEVELOPMENTS

- The Zimbabwe Geological Survey (ZGS) has embarked on an ambitious project to resuscite the geological mapping project around the Beatrice area following years of inactivity due to non-availability of resources and manpower. The department team, led by Mcepherson Gwindi, managed to conduct a reconnaissance visit to the area in May this year and where able to notify concerned stakeholders in the area.

- The UNESCO International Centre on Global-Scale Geochemistry was officially established in the China Geological Survey on 12th May 2016. The centre aims to establish a global co-operation network for the "Chemical Earth" Project, to foster knowledge and technology of global-scale geochemistry and to sustain natural resources and the environments of the world. The Zimbabwe Geological Survey is pursuing collaboration with the UNESCO International Centre on Global Geochemistry. Discussions are now at an advanced stage and we are looking forward to the training of our geoscientists and the implementation of the project during the second half of 2025.

- The Ministry of Mines and Mining Development signed a Memorandum of Understanding with the Iran Geological Survey to cooperate in geological mapping, mineral exploration, and the management of geological data.

- The building housing the Zimbabwe Geological Survey is earmarked for a major facelift following the allocation of funds in May 2025 from the Ministry of Finance Investment Promotion and Economic Development to enable the refurbishment of Maufe Building.

STAFFING

- The Deputy Director, **Ernest Mugandani**, attended the 30th Session of the Council of the International Seabed Authority (ISA) held from 17-28th March 2025, in Kingston, Jamaica.

  The International Seabed Authority is an autonomous inter-governmental organization mandated by the United Nations Convention on the Law of the Sea to manage the mineral resources of the seabed beyond national jurisdiction for the shared benefit of humankind.

  The Authority is mandated to ensure that all economic activities in the deep seabed, including mining, are regulated and responsibly managed using the best available scientific evidence for the benefit of all humankind.

  Ernest subsequently attended the Southern Africa Regional AMREC/PARC/GMI Sensitization and Implementation workshop held in Lusaka, Zambia from 16-20th June 2025.

  - The African Mineral and Energy Resources Classification and Management System (AMREC) is a continent-wide system intended for management of Africa's mineral and energy resources.

  - The Pan-African Resource Reporting Code (PARC) is the AMREC-based code for public reporting of resources under relevant financial and security regulations in Africa.

  - The Geological and Mineral Information (GMI) strategy is to facilitate the strengthening of the African production, management and dissemination of geological and mineral information in connection with the implementation of the African Mining Vision (AMV) and the domestication of the Country Mining Vision (CMV).

- The Director, **Forbes Mugumbate**, was part of the government delegation that accompanied the Vice President Dr Constantino Chiwenga and the Hon. Deputy Minister of Mines and Mining Development, Engineer Caleb Makwiranzou to Tehran, Iran for the Iran-Africa Economic Conference held from 28th April to 5th May 2025. A Memorandum of Understanding (MOU) in the field of Geology was signed with the Geological Survey of Iran during the visit. The ZGS is now committed to working on the modalities of implementing the MOU.

- **Melissa Phiri** participated in the 2nd Quarter Gold Mobilization programme that was conducted during the period 7-14th May 2025. The purpose of the exercise is

to encourage miners to dispose their gold through official channels to the Fidelity Gold Refinery (FGR).

- **Mangwiro Sibanda** attended the African Legal Support Facility (ALSF) Zimbabwe Extractives Project Workshop held in Victoria Falls from 12 to 14th May 2025. The ALSF, is an international organization hosted by the African Development Bank (AfDB) to provide advisory services to African governments in the structuring and negotiation of complex commercial transactions relating to extractives and natural resources, infrastructure, public-private partnerships, energy and the sovereign debt sectors to ensure that African countries benefit from transactions that are fair and equitable and contribute to their sustainable development.

Mining News and Commentary

The full text of the Mines and Minerals Bill referring to the "Regulation of the Geology Profession" is reproduced below without Commentary. As the implications affect our Membership and all those without, now is the time for your commentary, which should be addressed through the Administrator to the Chairman of our Society at: geol.soc.zimbabwe@gmail.com

Mines and Minerals [Bill]

PART XXVII

Regulation of Geology Profession

317 Interpretation in Part XXVII

In this Part—

"certified geologist" means a geologist certified as such in accordance with rules published in terms of section 318;

"chartered geologists' society" or "society" means a geologists' society that is chartered in terms of section 319;

"geology" means the branch of natural science concerned with the Earth and other astronomical objects, the rocks of which they are composed, and the processes by which they change over time;

"geologist" means a practitioner of any one or more of the geology disciplines or specialisms associated with geology (with particular reference the making of explorations and examinations of the mineral resources of the land), as defined in the chartered geologists' charter, who is entitled to call himself or herself an geologist by virtue of—

(a) holding such university or college degree or other qualification and having such relevant experience as are recognised by the chartered geologists' society for the purposes of the geologist profession of which he or she is a practitioner; and

(b) being—

(i) at the date of commencement of the approval of the charter, a fellow or member of the appropriate grade in good standing of the chartered geologists' society; or

(ii) a certified geologist;

"practise as geologist" means engage in the profession of geology for reward or gain as a fulltime or part-time occupation, whether on one's own account or as an employee or agent of another person;

"society of geologists" means a society, institute, institution, body or federation established by geologists to promote their collective professional interests in one or more of the geology disciplines defined in their constitution or other constitutive document.

318 Application for approval as chartered geologists' society

(1) Any society of geologists operating in Zimbabwe for an uninterrupted period of twenty years may, in terms of this Part, apply to the President through the Minister to become the chartered geologists' society by submitting to the Minister the draft charter of the society and such other documentation and fee as may be prescribed.

(2) The draft charter of the applicant society of geologists shall make provision for the following matters—

(a) the name of the society; and

(b) the objects and functions of the society; and
(c) the membership and governance of the society; and
(d) the administration of the society; and

(e) the making of internal regulations, by-laws or rules by which the society will be governed; and

(f) the appointment, removal and conditions of service of members of staff of the society;

(3) The Minister shall refer the application to the Secretary who shall, in terms of section 11, evaluate and verify the suitability of an application under this section and advise the Minister accordingly.

(4) Where upon the advice and report of the Minister the President is satisfied that -

(a) the financial and other resources required to enable the applicant to discharge its functions are available or are likely to become available; and

(b) the applicant, if approved, is likely to maintain the best professional standards of the geologist profession on a long-term basis; and

(c) the approval of the applicant to become the sole society responsible for certifying professional geologists is in the public interest and the national interest of Zimbabwe;

the President may grant the applicant a charter for an indefinite period, or a definite period of not less than ten years from the date of its grant, and shall publish a proclamation in a statutory instrument setting forth the terms of the charter:

Provided that if the President rejects the application, or the charter, having been granted, subsequently lapses or is revoked, the continued existence of the applicant as a registered or unregistered incorporated association shall not be affected thereby.

(5) Upon publication of a proclamation, the private institution concerned shall be established as a body corporate capable of suing and being sued in its corporate name and, subject to its charter, of performing all acts that a body corporate may by law perform.

(6) The chartered geologists' society shall keep a register of professional geologists certified by it at its offices which shall be available for inspection by members of the public during normal working hours, upon payment of the prescribed fee, if any.

319 Professional certification and disciplinary rules by chartered geologists' society

(1) The chartered geologists' society shall be responsible for the professional conduct of its members who are registered persons and, for that purpose, the society shall have power, in accordance with its charter, to undertake disciplinary proceedings against such members and to punish them for breaches of the rules referred to in subsection (2).

(2) Subject to subsection (3), the chartered geologists' society shall make rules governing—
(a) the admission to or cancellation or suspension of membership of the society concerned;
(b) the professional conduct to be observed by certified geologists:
(c) the examinations required to be passed or qualifications required to be obtained for certification as a geologist in any geology discipline governed by that society.

(3) Rules made in terms of this section shall be referred to the Secretary for onward transmission to the Minister as soon as possible after they are made, and shall not be of any force and effect until they have been approved by the Minister on the recommendation of the Secretary and published in the *Gazette*.

(4) Every certified geologist shall, for the purposes of being subject to the disciplinary rules of the chartered geologists' society, be deemed to be a member of the chartered geologists' society, but no certified geologist shall be entitled to participate in the internal governance of such

society unless, in addition to the certification fee, the certified geologist also pays the fee for membership of such society as prescribed in its rules or by-laws.

320 Offences by unregistered persons and those employing them

(1) As soon as the rules referred to in section 317 have been published in the *Gazette,* no person other than a person who—

(a) at the date of commencement of the approval of the charter, is a fellow or member of the appropriate grade in good standing of the chartered geologists' society; or
(b) is a certified geologist;
shall hold himself or herself out to be a geologist or use the designation of geologist or any other name, title, description or letters indicating that he or she is a certified geologist, whether by advertisement or description or in any document.

(2) If immediately before the date on which rules referred to in section 317 have been published in the *Gazette*, any person (not being a fellow or member of the chartered geologists' society as described in subsection (1)(b)) is practising as a geologist, he or she may continue to practise as such for a period of not more than six months from such date, after which he or she must have become certified as a geologist or applied for and obtained a temporary practising certificate in terms of section 319.

(3) Any person who contravenes subsections (1) or engages or knowingly 20 accepts the services of a person who contravenes subsections (1), shall be guilty of an offence and liable to a fine not exceeding level eight or imprisonment for a period not exceeding one year or to both.

(4) A conviction for an offence under subsection (3) shall not preclude further prosecution or conviction if the offence continues or recurs.

321 Temporary practising certificate

(1) Any geologist who is in Zimbabwe by virtue of a temporary residence permit, or who is not ordinarily resident in Zimbabwe, and who wishes to practise as such in Zimbabwe, may apply to the chartered geologists' society for a temporary practising certificate, for which purpose he or she shall submit with his or her application such contribution to the chartered geologists' society as may be prescribed in rules, together with such certificates, documents and information as the secretary of the society may reasonably require.

(2) On receipt of an application for the issuance or renewal of a temporary practising certificate, the secretary of the chartered geologists' society shall issue or, as the case may be, renew the practising certificate, if he or she is satisfied that—

(a) the applicant is a qualified geologist in the country in which he or she ordinarily resides; and

(b) the contribution referred to in subsection (1) has been submitted together with the application.

(3) If the secretary has any question about the nature of the applicant's qualifications as a geologist, the secretary shall refer the application to the governing body of the society.

(4) Where an application has been referred to it in terms of subsection (2), then the governing body of the society, after making such inquiry into the matter as it considers necessary shall—

(a) direct the secretary of the society to issue or, as the case may be, renew the temporary practising certificate concerned; or

(b) refuse to issue or, as the case may be, to renew the temporary practising certificate concerned, and shall direct the secretary of the society to advise the applicant of its decision and the reasons for it.

(5) For the duration of the temporary practising certificate, the holder thereof is subject to the disciplinary rules of the chartered geologists' society.

(6) Subject to subsection (7), a temporary practising certificate shall be valid—

(a) for the period of twelve months from the 1st January next following the application therefor; or

(b) if the applicant so requires, from the date of its issue until the 31st December of the year in which it is issued.

(7) A temporary practising certificate issued to a person who is prohibited or suspended from practice as a geologist for being in breach of the disciplinary rules of the chartered geologists' society, shall cease to be valid from the date of such prohibition or suspension, and the person shall forthwith return the temporary practising certificate to the secretary of the society for destruction.

MINING NEWS

gleaned from https://www.mining.com/

by Kennedy Mtetwa

Zimbabwe seeks $950 million in new bid to kickstart mining firm

Bloomberg News | **February 13, 2025** | News Africa Gold Lithium Platinum

Zimbabwe's state miner is planning a fresh bid to kickstart a range of projects a year after the government took full control of the company. Kuvimba Mining House Ltd, under new chief executive officer Trevor Barnard, is looking to development banks, mining companies and traders to raise $950 million to develop lithium, platinum and gold assets, he said in an interview.

"Access to all the large development banks, to all the funding, to all the major traders has just opened up," said Barnard, without identifying the potential financiers. The change in the ownership structure has "been really a very good move for Kuvimba."

Previous attempts to raise funding were hindered because of speculation over the undisclosed identity of private investors who held about a third of the company. Earlier attempts to hold an initial public offering and form a venture with Russian investors were abandoned.

Kuvimba's main assets were formerly held by companies tied to Kudakwashe Tagwirei, a politically connected businessman, *Bloomberg* reported in 2021. Tagwirei, a one-time adviser to Zimbabwe's President Emmerson Mnangagwa, has been sanctioned for alleged corruption by the US and the UK. Kuvimba has always denied that he ever held a stake in the company. The government has discussed handing some of Kuvimba's output to Trafigura Group to repay an outstanding fuel debt, *Bloomberg* reported in 2022.

More than half of the amount the company plans to raise will go towards building an underground platinum mine at the long-delayed Darwendale project, according to Barnard, who took up his post in December. A lithium project the company estimates will cost as much as $275 million may be quicker to develop, he said. The company has agreed a lithium joint venture with Chinese mining firms, and will finalize the deal by March before proceeding to build the first phase of the project known as Sandawana. It will take about 15 months after signing to start production that will ultimately reach 500,000 tons of lithium concentrate per annum, Barnard said. The Chinese partners will finance the project and transfer it back to Kuvimba once the loan is repaid, a process he estimated would take less than five years.

Kuvimba also plans to develop a second area at Sandawana. Barnard said the company has already received interest from potential investors, including Cluff Africa Ltd and a major European commodity trader that he declined to name. Other Chinese investors are also keen, he said, adding Kuvimba may sign a deal within six to 12 months. Cluff did not immediately respond to an emailed request for comment.

At the Darwendale platinum deposit, the company initially plans to develop a smaller open-pit mine this year that will cost about $50 million to dig. It will pay another mining company to process that ore, according to Barnard. Kuvimba is in talks with development banks for loans to finance the bigger, underground project and processing facilities, he said, without giving more detail. The targeted start date is within three years. Zimbabwe holds

the world's second-biggest platinum reserves after South Africa and is Africa's biggest lithium producer.

Kuvimba is now 70%-owned by the state sovereign wealth fund known as Mutapa Investment Fund, with entities held by the finance ministry, including state pension funds, power utilities and a deposit insurance fund, holding the rest, Barnard said.
(By Matthew Hill)

Zimbabwe debt woes grow as state mining firm faces asset seizure
Bloomberg News | **April 10, 2025** | Africa Diamond Palladium Platinum Rhodium

A state-owned Zimbabwean mining firm is trying to protect assets that risk being seized because the country failed to honour a debt incurred when it lost an international arbitration case over cancelled nickel and platinum ventures. The Zimbabwe Mining Development Corporation has asked the Mines Ministry for a resolution to a longstanding dispute with a unit of Amaplat Mauritius Ltd that is laying claim to the assets, a letter written by the company's chairman Paul Chimbodza to Mines Minister Winston Chitando shows. Chimbodza confirmed the veracity of the letter, which has been seen by *Bloomberg*, but declined to comment further, referring queries to the Ministry.

The $93 million owed by ZMDC is among a litany of creditor woes confronting state entities in Zimbabwe. The government is more than $21 billion in debt and locked out of international capital markets after defaulting on payments owed to institutions including the World Bank and European Investment Bank.

"The corporation has on many occasions requested that the Amari debt be assumed by the state," Chimbodza wrote in reference to ZMDC's standoff with the Amaplat unit. ZMDC, which the Treasury indicated should address the matter using internal resources, has few assets of its own as they have mostly been transferred to a new state company known as Defold Mine Ltd.

Zimbabwe's case against Amaplat was heard by the International Chamber of Commerce's arbitration court in a sitting in Zambia in 2014, and the tribunal ruled in the company's favour. Zambia's High Court granted Amaplat leave to enforce the arbitration ruling in 2019. Two years later, the company made a proposal to the country's finance ministry for the settlement of the debt, which amounted to $65.9 million at the time. That was acceded to with the understanding that ZMDC would make the payments.

ZMDC suggested that Bravura, a company owned by Nigerian businessman Benedict Peters, pay Amaplat $15 million as part of the agreement. Bravura, which received platinum concessions, however only paid $3 million to the mines ministry, Chimboza said, and the remaining terms of the settlement, including the transfer of mining assets to Amaplat, have not been met. Bravura officials were not available for comment, said a person who answered their phone at offices in Zimbabwe's capital, Harare.

"It is not for Amari and Amaplat to determine how the government of Zimbabwe sources funds for payment for its public debt," Amaplat said in a response to queries. "As the ICC award is against a Zimbabwe government parastatal and the commissioner of a government ministry, the ZMDC and the Chief Mining Commissioner of the Ministry Mines, the public debt remains the responsibility of the government of Zimbabwe for the full amount." Secretary for Mines Pfungwa Kunaka said he was traveling and did not respond to questions on how the dispute would be handled.

More legal trouble may lie ahead for Zimbabwe as Amaplats plans to register its award in Canada, after doing the same in the US at the end of last year. A hearing in Canada is set for June 30, Chimbodza said in the letter.

Zimbabwean diamonds, due to be sold in Brussels, were temporarily seized in relation to the dispute in 2014. The continuous engagement of external lawyers is costly with more than $500,000 spent by ZMDC and the Ministry in engaging legal representation, Chimbodza said.
(By Godfrey Marawanyika and Ray Ndlovu)

Zimbabwe restarts minting of gold coins as bullion prices soar to record

Bloomberg News | **April 28, 2025** | Africa Gold

Zimbabwe's central bank is again issuing gold coins it scrapped 10 months ago, a step it took to ramp up the bullion stockpile used to back up the local currency, the ZiG (now ZWG). Minting of the so-called "Mosi-Oa-Tunya" 22-carat coins, named after the iconic Victoria Falls, was scrapped in July, central bank Governor John Mushayavanhu told *Bloomberg* in an interview at the time. The coins are now available again through the nation's lenders at a "time of attractiveness" of bullion, according to Persistence Gwanyanya, a central bank monetary policy committee member.

"Gold is more attractive to the market at the moment and it supports our value preservation efforts," Gwanyanya said Sunday in a phone interview. "We are taking advantage of firm gold prices and are re-injecting the gold coins into the market."

Two banks confirmed the sale of newly-minted coins — the Central Africa Building Society, or CABS, a subsidiary of Old Mutual Zimbabwe, and a local unit of the South African lender Nedbank Group Ltd. The coins were first issued in 2022 as a store of value for pension funds and individuals seeking a safe haven from frequent bouts of inflation and currency volatility.

"We are pleased to inform you that the Reserve Bank of Zimbabwe has reintroduced the issuance of gold coins through authorized dealers," CABS said in a client notice issued over the weekend.

The coins are an "alternative investment option" which can be used to enhance investment portfolios with a "valuable asset," Nedbank said in its client notice. The coins are sold in denominations ranging from one-tenth of an ounce to one ounce of gold.

A surge in global gold prices by about 25% so far this year, fuelled by the uncertainty of a trade war launched by the US, is widely expected to be a boon for Zimbabwe, a primary producer of the precious metal. The value of Zimbabwe's gold shipments jumped to $395.9 million during the first quarter from $303.1 million a year earlier, according to data from the Reserve Bank of Zimbabwe.
(By Ray Ndlovu)

Gold powers South African miners to best month on record

Bloomberg News | April 1, 2025 | Markets Top Companies Africa Gold

The surging gold price has propelled South African mining stocks to their best monthly performance on record, shielding the country's benchmark index from the mayhem in global markets. An index of South African mining companies jumped 33% in March, the

most in a month since *Bloomberg* started compiling the data in 1995. That helped the benchmark FTSE/JSE All Share Index post a 3.1% gain for the month, outperforming emerging-market peers and US equities.

Leading the charge have been gold producers, with Harmony Gold Mining Co, the biggest local miner of the metal, and Sibanye Stillwater Ltd both soaring 48% to make them the best-performing stocks in the benchmark index. DRDGOLD Ltd and AngloGold Ashanti Plc were also among the top performers.

Gold miners are back in favour after the metal hit multiple records this year on central-bank buying and haven appeal amid worries about the escalating trade war. And the rally may not be over yet, with Wall Street banks including Goldman Sachs Group Inc predicting further gains. That could fuel profits for gold miners "well in excess" of previous years, said Lester Davids, an analyst at Unum Capital Ltd.

"Gold miners are known to have fixed costs, meaning that as gold prices rise, their profits can increase exponentially," Davids said.

The South African benchmark's advance in March outpaced the 0.4% gain in MSCI Inc's index of emerging-market equities. In dollar terms, the South African gauge added almost 5%, compared with a loss of close to 6% for the S&P 500. Bullion neared $3150 an ounce on Tuesday, on pace for a fourth day of gains. Traders are on edge as President Trump plans to announce sweeping levies on all of America's trading partners on Wednesday, raising the risks of retaliatory measures. The metal may rise as high as $3300 in the coming months, according to Goldman Sachs.

"I remain happy to ride this momentum wave to the upside, with bullion's salad days unlikely to come to an end any time soon," said Michael Brown, a senior research strategist at Pepperstone Group Ltd. "The rally isn't quite indestructible, but the bulls continue to believe in their soul for now."

South African platinum producers have also thrived, as a slowdown in sales of electric vehicles spurred demand for the commodity, which is used in gasoline-powered engines. The spot price of platinum is up about 10% year to date, powering the shares of producers including Impala Platinum Holdings Ltd, up 43% in March, and Northam Platinum Holdings Ltd, up 35%.

"March has largely been a continuation of some of the year-to-date themes where precious metals and a couple of large-market-cap stocks have led the market higher," said Peter Takaendesa, head of equities at Mergence Investment Managers Ltd. The global rotation out of US equities has also benefited South African stocks, according to Unum Capital's Davids.

"The Johannesburg Stock Exchange has been a beneficiary of the flows, with relatively lower valuations being one of the key drivers," he said. The forward price-earnings ratio for the FTSE/JSE Africa All Share Index is about 15, compared with about 21 for the S&P 500, according to data compiled by *Bloomberg*.
(By Khuleko Siwele)

Silver lining spied for Africa's gold exporters, oil importers

Bloomberg News | April 22, 2025 | Markets Africa Gold Oil & Gas

Surging gold and the slide in oil prices are offering some African countries a rare boost, as the region copes with the fallout from President Donald Trump's trade war and freeze on

US aid. While oil exporters Angola and Nigeria will be hit after Brent crude slumped below $67 per barrel from around $75 at the start of the month, energy importers including South Africa will get a bit of relief.

The jump in gold prices past $3500 an ounce for the first time, amid concern that Trump may seek to oust Federal Reserve Chair Jerome Powell, provides additional support, with Ghana, the region's largest gold exporter, among those standing to benefit.

"Gold strong, oil weak looks very pretty for South Africa," said Nicky Weimar, chief economist at Nedbank Ltd in Johannesburg, adding the main benefit is from lower energy import costs. She cautioned that the country does not earn as much from gold as in the past, and the prices for its other exports including platinum and coal have also been hurt by the same concerns over global growth that hit oil. But net/net South Africa looks to be coming out ahead.

"Does this psychologically give the rand a boost? Without a doubt," she said. "It does help to calm inflation fears and that obviously feeds through to interest rates."

The rand was trading 0.8% firmer at 18.58 against the dollar at 3:30 p.m. in Johannesburg. The South African Reserve Bank held rates at 7.5% last month, despite inflation near the floor of its 3% to 6% target range, arguing that uncertainty warrants policy caution.

Ghana, which has been battling annual inflation around 23% while restructuring its debts after defaulting in 2022, looks like a clear winner from the bullion rally.

"The surge in gold prices should support investor sentiment towards Ghana external bonds, especially given cheap entry points after the recent sell-off in emerging market high-yield credit," said Samir Gadio, head of Africa strategy at Standard Chartered Plc in London. "The gold rally could also help the Bank of Ghana to anchor the cedi as it continues to accumulate reserves."

Ghana's 2035 Eurobonds rose 0.1% to 65.43 cents on the dollar at 12:51 p.m. in London. African Eurobonds were among those hurt as investors retreated from riskier markets as Trump unveiled much harsher-than-expected tariffs earlier this month.

The region was already looking at a dollar squeeze after he froze US aid for Africa. Access to international credit markets got tougher after the trade war erupted, but if the bullion rally is sustained it will deliver an important lift to foreign exchange earnings.

"Higher gold prices are helping countries like Ghana and other gold exporters in frontier markets not to be as dependent on foreign financing," said Mark Bohlund, a senior credit research analyst with REDD Intelligence. Reduced pressure on foreign reserves to finance oil imports will also help Ghana, Kenya and South Africa, as well as aiding inflation and "that should lead to more monetary easing," he said.

(By Moses Mozart Dzawu and Matthew Hill)

Anglo American shareholders approve demerger of South African platinum unit

Reuters | April 30, 2025 | Markets Top Companies Africa Palladium Platinum

Global miner Anglo American said on Wednesday that shareholders have approved the demerger of its South African unit, Anglo American Platinum (Amplats), along with the company's share consolidation. The resolution was passed at the company's general meeting, with 99.94% of votes cast in favour. The demerger is expected to become effective on May 31, subject to the satisfaction or waiver of certain conditions.

Amplats, the world's leading producer of platinum group metals (PGM) by volume, will be separated from Anglo American as the parent company refocuses on energy transition metals like copper and iron ore. Amplats, which proposed changing its name to Valterra Platinum in March, will retain its primary listing in Johannesburg, with a secondary listing on the London Stock Exchange. The share consolidation is set to take effect on June 1, with the ratio to be announced on May 20.
(By Aatrayee Chatterjee; Editing by Alan Barona)

Premier African Minerals stock triples on Glencore deal talks
Staff Writer | April 23, 2025 | Battery Metals Top Companies Africa Lithium

Premier African Minerals (LON: PREM) shares more than tripled on Wednesday after the company announced it was pursuing a lithium concentrate supply agreement with Glencore (LON: GLEN). The stock surged to 0.092p in late-morning trading in London, up from Tuesday's close of 0.030p. By midday, it was up 80% at 0.056p, valuing the company at £25.3 million ($33.6 million).

Premier, which operates the Zulu lithium-tantalum mine in Zimbabwe, said a potential deal with Glencore could help it resolve a $35 million debt owed to major shareholder Canmax Technologies. The debt stems from an offtake prepayment arrangement tied to a 2022 agreement that promised Canmax 50,000 tonnes of spodumene concentrate annually from Zulu, beginning in May 2023. Repeated delays in bringing a spodumene concentrator online have prevented Premier from meeting production targets. The company is now looking to finalize a binding purchase agreement with Glencore within three months. If successful, Glencore would also support Premier in managing and repaying its outstanding obligations to Canmax and other creditors.

After Ukraine deal, US turns its critical minerals gaze to Africa
Reuters | May 7, 2025 | Critical Minerals Africa USA Cobalt Copper Specialty Minerals Tin Tungsten

Away from the headlines around the minerals deal with Ukraine, the United States has pursued a potentially even more significant critical metals deal in the Great Lakes region of Africa. The government of the Democratic Republic of Congo reached out to the Donald Trump administration with a Ukrainian-style proposal in February in response to the rapid advance of the Rwandan-backed M23 rebel group in the east of the country. The US government has responded enthusiastically with a flurry of negotiations aimed at ending a decades-long conflict born out of the Rwandan genocide of 1994.

The political momentum is building towards a potential peace deal between Congo and Rwanda as soon as May, to be accompanied by bilateral minerals deals between both countries and the United States. At stake are the mineral riches of North and South Kivu provinces, a major but highly problematic source of metals such as tin, tungsten and coltan.

Saving the Bisie Tin Mine
The M23 rebels seized control of Goma and Bukavu, eastern Congo's two largest cities, in February. By early March, they had advanced rapidly westwards to Walikale, the location of the Bisie tin mine. Bisie is a poster child for ethical mining in the Congo, having transitioned from an artisanal site to a fully-modernized operation that is the world's fourth largest producer of tin concentrates. Bisie's operator, Alphamin Resources, quickly shut down and evacuated the site as M23 rebels closed in, sending tin prices into a frenzy and

threatening the Congolese government with the loss of a major source of revenue. The fall of Walikale seems to have accelerated direct talks between the US government, Congo and Rwanda, resulting in M23 fighters withdrawing in what they presented as a goodwill gesture ahead of Qatar-brokered peace talks. Alphamin resumed operations at Bisie on April 15.

Armed Riches

Bisie is the only official-sector mine in North and South Kivu provinces. Everything else is artisanal. Researchers from The International Peace Information Service have mapped over 2800 sites in eastern Congo since 2009 and collected information from 829 active sites that it estimated employed some 132,000 miners between 2021 and 2023. Of the sites surveyed, 85% were mining gold and most of the rest digging for the 3T minerals – tin, tungsten and tantalum, the latter occurring as coltan ore. The IPIS estimates that 61% of miners at these sites were affected by "armed interference", defined as coercive rent-taking, from one of the many armed groups operating in the region, not least the Congolese army. This has been a problem for many years. Indeed, Congo was the template for what became known as "conflict minerals" legislation such as the 2010 Dodds-Frank Act requiring US companies to adhere to responsible sourcing rules. Sadly, not much has changed on the ground.

The M23 rebels themselves are involved in the minerals trade. Artisanal producers of coltan in the town of Rubaya pay a 15% tax to the group, *Reuters* journalists found on a visit to rebel-controlled areas. The seepage of metals across Congo's eastern borders is a major problem, not just for the Congolese government, but also for Western buyers due to the threat of conflict minerals contaminating the official supply chain.

The Great Railway Game

Congo's minerals wealth is undisputed and its potential rewards far more immediate than from the deal with Ukraine. A peace deal between Rwanda, Congo and the M23 rebel group would be an important first step to restoring order to the troubled Kivu provinces. But there are plenty of other armed groups actively operating in the region and it is unclear how far the United States would want to commit to any military presence to deter them. The prize, however, is tantalizingly large.

Congo is also one of the world's richest sources of copper and cobalt, which are produced far away from the Great Lakes region in the southern province of Katanga. This part of Congo's mineral wealth is largely controlled by Chinese operators, which ship both raw materials and finished metal back to China. The West would love to loosen China's grip.

A lot of investment is going into the Lobito Corridor project, which will rehabilitate and extend a railway line linking the Angolan port of Lobito with Congo's copper-belt mines. The aim is to use the railway as a generator of economic development and also open up a western transport route for Congo's metals. China's response is a $1.4 billion deal to upgrade the Tanzania-Zambia railway line that transports Chinese-produced metals eastwards to the port of Dar es Salaam. Railways have until now defined the great minerals game being played out between East and West in the heart of Africa. A minerals-for-security deal in the north of the country would open a whole new front in that strategic competition and a new chapter in Congo's history.

(The opinions expressed here are those of the author, Andy Home, a columnist for Reuters.)

SEG Timothy Nutt Memorial Fund

This fund will be available to provide financial support for geology students and young economic geologists located in Zimbabwe or in southern Africa with ties to Zimbabwe. The fund may be used to support SEG student chapter activities, travel to meetings, field trips, for research or study grants, technical lectures or any other activities approved by the SEG Regional Vice President for Africa.

Strong preference will be given to those applicants who are SEG Student Members.

To become an SEG Student member visit www.segweb.org/join

Applicants must describe what the project is, why the research is important and how it is to be done.

An estimate of expenses for the project must be included with the application.

Grants are expected to be fully utilized by April 30 following the calendar year in which they are awarded / dispersed.

Grant recipients are required to provide a year-end accounting of how the money was spent together with a suitable progress report or final abstract.

A 2018 Research Grant application form may be downloaded from www.segweb.org/StudentResearchGrants

Student Research Grants Committee c/o Assistant for Student Affairs, Society of Economic Geologists Foundation 7811 Shaffer Parkway, Littleton, CO 80127-3732 USA

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GSZ Research and Development Fund

Enquiries relating to the distribution of funds through this facility should be made with the standing Chairperson.

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Conferences

Summer Symposium 2025

Date: Friday 24th October 2025

Venue: University of Zimbabwe, Harare

The Geological Society of Zimbabwe cordially invites you to our annual Summer Symposium, which will be followed by a 1-day field trip **(25th October)** yet to be arranged.

We are therefore starting to allocate speaking slots. If you would like to present, please let us know (muonekab@gmail.com or andrewdutoitzim@gmail.com). We welcome presentations on a broad range of subjects of general interest to geologists.

Diarize these Dates – We need to see you there.

Geological Society of South Africa
African Exploration Showcase
Johannesburg Country Club, Auckland Park
12 – 13 November, 2025

For further information on specific events staged by the Geological Society of South Africa see https://www.gssa.org.za/
or email info@gssa.org.za

Colloquium of African Geology
CAG30 -
Unveiling Africa's Geological Resources:
"Forging a Path for Sustainable Development"
Nairobi, Kenya – 23-27 September, 2025
Biennial Conference organized by the Geological Society of Africa
cag30info@cag30nbi.org / cag30.nbi@gmail.com

GEOLOGICAL SOCIETY OF ZIMBABWE: CONTACT DETAILS OF MEMBERS OF THE EXECUTIVE COMMITTEE FOR 2025

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