

## **CURRICULUM VITAE**

### **RINAE MAKHADI**

#### **Contact details:**

**Postal address:** 23 Humewood Complex  
Cromwell Road, Navalsig  
Bloemfontein  
9300

**Cell phone:** +27 (0)61 881 7149 / 0839901948

**E-mail:** rinaemakhadi72@gmail.com

#### **Tertiary and professional education:**

##### **Qualifications**

- BSc (Geology) – University of the Free State (2012)
- BSc (Hons) (Geology) – University of the Free State (2013)
- MEM (Master of Environmental Management) – University of the Free State (2016-2019)
- BSc (Hons) (Geohydrology) – University of the Free State (2019)

##### **Awards**

- 9<sup>th</sup> annual Inkaba yeAFRICA award for one of the best oral presentations, November, 2012
- Centre for Environmental Management (UFS), recognition for mini-dissertation with distinction, June 2019
- Awarded the 2019 Khotatsa award from the centre of teaching and learning (UFS)

#### **Work Experience:**

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|----------------------|------------------------------|
| <b>Institution</b>   | University of the Free State |
| <b>Department</b>    | Geology                      |
| <b>Position held</b> | Student assistant            |
| <b>Duration</b>      | 2011-2012                    |

##### **Key responsibilities**

- Facilitated practical sessions
- Facilitated field excursions alongside lecturers
- Helped students with problems encountered during practical sessions
- Invigilated during semester and practical tests
- Marking of assignments and practical tests

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|-----------------------------|------------------------------|
| <b>Institution</b>          | University of the Free State |
| <b>Department</b>           | Geology                      |
| <b>Position held</b>        | Junior lecturer – Lecturer   |
| <b>Duration</b>             | 2014-*                       |
| <b>Key responsibilities</b> |                              |

- Lecturing of first year general geology and second year environmental geology students
- Prepare classes ( theoretical and practical sessions)
- Prepare assessments such as semester tests and examinations
- Facilitate field schools to waste disposal facilities and water treatment plants
- Research

**Skills and competencies:**

- Contaminated site investigations (for projects on solid waste disposal facilities, groundwater contamination, acid mine drainage and untreated sewage waste).
- Sound knowledge and experience in relevant environmental legislations in South Africa (NEMA, NWA, MPRDA, NWMS, NEMAQA).

**Community service:**

- Free State provincial organiser: Minquiz National Science Competition (2016-2018).
- Representative of the Geology Department (UFS): Creative Minds Club for disadvantaged learners in the Free State Province (2019-\*).

**Publication record:**

**Dissertations**

1. Makhadi, R. (2012). *Geochemical analysis of surface water quality in the Welkom area with special reference to impacts on the environment*. Unpublished honours dissertation, University of the Free State.
2. Makhadi, R. (2019). *Assessment of groundwater quality in the vicinity of municipal solid waste landfill sites in Bloemfontein, South Africa*. Unpublished master's dissertation, University of the Free State.

**Submissions to peer-reviewed journals**

1. Ololade, O.O., Mavimbela, S., Oke, S.A. and Makhadi, R. (2019). *Impact of leachate from northern landfill site in Bloemfontein on water and soil quality: Implications for water and food security*. Sustainability **11**(15) 4238; doi:10.3390/su11154238.
2. Makhadi, R., Oke, S. and Ololade, O. (2020). The influence of non-engineered municipal landfills on groundwater chemistry and quality in Bloemfontein, South Africa. Molecules **25**(23), 5599; doi.org/10.3390/molecules25235599.

## Conference contributions

1. Makhadi, R., Tredoux, M. and Van der Merwe, J. (2012). *Geochemical analysis of surface water quality in the Welkom area with special reference to impacts on the environment*. 9<sup>th</sup> Annual Inkaba yeAFRICA Workshop, GFZ Potsdam, 26-30 November 2012.
2. Ololade, O.O., Mavimbela, S., Oke, S.A. and Makhadi, R. *Impact of leachate from northern landfill site in Bloemfontein on water and soil quality: Implications for water and food security*. 7<sup>th</sup> World Sustainability Forum, Beijing China, 19-21 September 2018.

## Postgraduate supervision

1. Ngubeni, L. (2019) (BSc Hons) *The distribution of TDS concentrations in the pollution monitoring boreholes of the northern landfill site Bloemfontein, South Africa*.
2. Mokati, K. (2019) (BSc Hons) *The distribution of sulphate in the pollution monitoring boreholes of the northern landfill site Bloemfontein, South Africa*.
3. Mokoto, T. (2020) (BSc Hons) *The impact of weathering of sulphides in mine waste environments- implications for waste characterization and mitigation. A case study from Kitumba copper mine, Zambia*.
4. Matoyi, C. (2020) (BSc Hons) *Environmental impacts of coal deposits and their implications for mining and waste management – Witbank coalfields, South Africa*.

## Reference list

1. Name: Prof Bisrat Yibas  
Company: University of the Free State – Geology Department  
Relationship: Head of Department  
Contact details: 051 401 3080 | [YibasBabsoB@ufs.ac.za](mailto:YibasBabsoB@ufs.ac.za)
2. Name: Prof F. Roelofse  
Company: University of the Free State – Geology Department  
Relationship: Former HOD  
Contact details: 051 401 9001 | 084 406 7002 | [roelofsef@ufs.ac.za](mailto:roelofsef@ufs.ac.za)
3. Name: Prof O. Ololade  
Company: University of the Free State – Centre for Environmental Management  
Relationship: M.sc supervisor and mentor  
Contact Details: 051 401 3958 | 061 668 0858 | [OloladeOO@ufs.ac.za](mailto:OloladeOO@ufs.ac.za)
4. Name: Dr. S. Oke  
Company: Central University of Technology Bloemfontein  
Relationship: Mentor  
Contact details: 061 118 4893 | [soke@cut.ac.za](mailto:soke@cut.ac.za)