

CURRICULUM VITAE

PERSONAL DETAILS

Name	Oliver Armin KRAPPMANN
Date of birth	16 th of October 1966
Place of birth	Nuremberg, Germany
Nationality	German; permanent residence in Namibia
Contact details	12 Jeanette St., P.O.Box 2499, Tel.: +264 – 81 28 99 718 9000 Windhoek, Namibia e-mail: oliver@gecko.na
Marital status	Married, three children
Health	Good
Driving licence	Full, codes: A, C1E
Language ability	Fluent English speaking and writing, conversational Afrikaans Basics in Spanish and Portuguese; mother tongue German
Computer skills	Several software packages, including: ArcGIS, MS Office, Micromine Software training courses attended: Datamine, MS Excel, Micromine, Sable
Professional skills	25 years professional experience in mineral exploration projects with overall management and administration, financial evaluation, aspects involving a wide range of commodities and styles of mineralisation, work with governmental organisations
Memberships & professional bodies	- Honorary Life member of the Geological Society of Namibia -South African Council for Natural Scientific Professions (SACNASP) Pr.Sci.Nat # 400097/10 - Member of the Chamber of Mines of Namibia, exploration committee
Interests	Nature and environment, aviation
Country work experience	Germany, South Africa, Mozambique, Zambia, Zimbabwe, Namibia, Portugal

EDUCATION AND QUALIFICATIONS

Friedrich-Alexander-University Erlangen / Germany (1989 - 1995)
Geology and Mineralogy Studies; Graduation in Geology (Dipl./MSc)

PROFESSIONAL EXPERIENCE

Dr. Rietzler&Heidrich GmbH, Nuremberg / Germany (1992 - 1994)

Part-time work for the first part of Master's thesis:

Work with this consulting company was concerned with investigations for siting a refuse dump in the shales of the Frankonian Forest Region. Duties included the supervision of diamond-drilling and water pressure tests; conduct geological mapping and core-logging as well as the preparation of layouts for ground water table indicators.

Gebr. Knauf, Westdeutsche Gipswerke GmbH (1994 - 1995)

Part-time work for the second part of the thesis:

Exploration mapping in the Upper Trias of northern Bavaria for the mineral resource department of this gypsum mining and processing company.

JCI - Randfontein Estates Limited / South Africa (February 1997 - May 2000)

Employed as a production geologist with this complex gold mining operation in the western Witwatersrand. The company conducted multi-reef mining operations in the Elsburg Formation of the Witwatersrand Supergroup by trackless mining and conventional stoping. My responsibilities encompassed a wide range of tasks for the SV1 production section (\pm 20.000 tons/month). The duties included the collection, collation and interpretation of geological data with emphasis on stratigraphic, structural and sedimentological information. I was also responsible for the coordination and supervision of samplers, diamond-drilling operations as well as the geo-technicians engaged with the section. In addition to this guidance of the mining operations, ore-reserve calculations and provision of mining layouts together with feasibility studies were an essential part of my work. With computer modelling packages used on the mine, ore resource computations in connection with short and long-term mine planning formed an integral part of my responsibilities.

Minerals Development Fund of Namibia / Namibia Small Miners Assistance Centre (June 2000 - December 2003)

Employed with this institution as Technical Assistant. The objective of NSMAC was to encourage development in the small-scale mining sector by providing the miners with the necessary mining related services. A large number of small-scale miners were helped with advice and training on reconnaissance and prospecting, with geological evaluations and mining consultations as well as support in the marketing of their products. I was actively involved in mineral exploration programs and exposed to the development and management of projects in various fields of mining and mineral processing – from the initial investigations to the realisation and actual production. Prominent assignments include the viability study on the re-processing of tailings material of the defunct Klein Aub Copper Mine; a joint project with the small-scale

miners' cooperative at Uis to explore and develop the B1/C1 tin-tantalite deposit; the reviving of the Cape Cross Salt mine and the establishment of a curio manufacturing facility in southern Namibia. Tasks further included economic assessments for the Minerals Development Fund of Namibia in view of financial assistance to various mining projects in the country. The wide range of duties with the organisation also encompasses those of the secretary to the board of directors as well as directorship with two subsidiary companies.

Geokey Consult CC - self-employed from January 2004 till July 2008

I am sole proprietor of this closed corporation. Under the company name I was conducting work in the fields of mineral exploration & mining, viability assessments as well as project development.

Assignments and work conducted:

- January - June 2004: Geological Survey of Namibia
Geochemical Stream and Soil Sampling Programme on the extend of 1:250 000 Topographical Map 2116 Okahandja
- August 2004: Afri Ore (Pty) Ltd
Diamond drill core logging for the company's Capricorn gold exploration project in the Otjiwarongo area of northern Namibia
- September 2004: Cortec (Pty) Ltd
Desk-top study on the Cortec's two Exclusive Prospecting Licenses for Tantalite in the Tantalite Valley area of southern Namibia
- October 2004: GeoAfrica Prospecting Services (Pty) Ltd
Gold exploration on two Exclusive Prospecting Licenses at Muzo and Naburi, Zambezia Province, Mozambique
- November 2004 – March 2005: Geological Survey of Namibia
Geochemical Stream and Soil Sampling Programme on the extend of 1:250 000 Topographical Map 2114 Omaruru
- February 2005: Chemetall GmbH / Germany
Phase-1 Cesium exploration project in Namibia:
Desk-top study on LCT pegmatite occurrences
- April 2005: Federal Institute for Geosciences and Natural Resources (BGR, Germany)
Excursion guide to small-scale mining locations in Namibia
- April – June 2005: Craton Diamonds (Pty) Ltd
Exploration drilling program on the company's Eden manganese project, Otjasondu area, Namibia. Setup, management, drill supervision and borehole logging
- June - July 2005: International Project Development (Pty) Ltd
Desk-top investigations for cement raw materials in Namibia
- June – August 2005: Chemetall GmbH / Germany

Phase-2 Cesium exploration project in Namibia; desk-top investigations, project proposal and budgeting

- August – September 2005: Igneous Mining (Pty) Ltd
Gemstone mining and exploration projects in Namibia; Geological investigations and application for a Mining License
- September 2005: Federal Institute for Geosciences and Natural Resources (BGR, Germany)
Desktop study / qualitative surveys of tantalite, tungsten and gold mineralization for small-scale mining in Namibia
- September - December 2005: Kalahari Minerals plc
Digitizing of data for this copper exploration project; layout and supervision of drilling programs; borehole logging and computation of data by means of Micromine software.
- September 2005 – December 2006: Bannerman Resources Ltd
Assist with the setup and initial phase of two uranium exploration programs. Data search and computation of the data; Project management and administration, training of field assistances and junior geologists, diamond core logging and compilation of data using Micromine software.
- March 2006 – July 2007: Geological Survey of Namibia
Geochemical Stream and Soil Sampling Programme on the extend of 1:250 000 Topographical Map 2014 Fransfontein
- October 2006 – November 2007: Federal Institute for Geosciences and Natural Resources (BGR, Germany)
Project study for Calcrete as an alternative building material in Namibia
- March 2007 – June 2008: Avdale Namibia (Pty) Ltd
RC drill supervision and logging as well as diamond core logging with the company's Otjikoto Gold Exploration project. Geological mapping and borehole logging for Teal's regional exploration programs. The deposit is presently mined and operated by B2 Gold, Namibia
- April 2007 – July 2008: Sunrise Minerals (Pty) Ltd
Application for Exclusive Prospecting Licenses EPL 3750 & 3751; accredited agent for the company in Namibia and coordination of remote sensing for prospecting over the license areas
- July 2007: Pyromet (Pty) Ltd
Desk-top study on high-grade quartz occurrences for silica carbide production in Namibia
- January - May 2008: Elspe Minerals (Pty) Ltd
Investigations on mineral licenses ML-105A-D for assessment of the gypsum resource available to mining as a cement additive. Various administrative matters as accredited agent for this company
- February 2019: Elspe Minerals (Pty) Ltd
Resource definition of gypsum mineralisation and renewal application for ML-105
- October 2018 - present: Gecko – Imerys Okanjande Graphite (Ltd) Ltd
Mineral license administration and water management

- November 2018 - present: Celsius Resources Ltd
Management of EIA process for Opuwo Cobalt mining licence application
- July – November 2019: Tulela Processing Solutions (Pty) Ltd
Project management: mineral exploration base and precious metals

Gecko Group of Companies (May 2008 - current)

Director Geology of Gecko Namibia (Pty) Ltd,
Manager Mineral Resource Department. Over the years Gecko compiled a large portfolio of mineral resource projects. Gecko's main objective is the development and exploitation of mineral deposits in a large variety of commodities. Aspects like health and environment together with mineral processing and value adding play integral rolls in this technical department. Gecko Namibia has entered into joint ventures with Celsius Resources, Australia, Imerys Carbon & Graphite and with Namibia Critical Metals, Canada.

My roll encompasses project management, resource and license administration. I was involved with the large number of projects and styles of mineralisation of which some are listed in the following:

Project	Period	Involvement
Aranos Coal, Namibia	2008 - 2010	Exploration, hydrogeology
Otjivalunda Salts, Namibia	2009 - 2015	Exploration, project management
Marine Phosphates and DE, Namibia	2009 - current	Exploration, project management
Cape Cross Salt, Namibia	2009 - current	Exploration, project management
Okanjande Graphite, Namibia	2010 – current	Exploration, project management, consulting
SwaCa Lime, Namibia	2010 - current	Exploration, project management
Mbada Diamonds, Zimbabwe	2012 - 2015	Consulting
Solwezi Copper, Zambia	2014 - 2017	Exploration, project management
Alcoutim, Iberian Pyrite Belt, Portugal	2016 - 2017	Consulting
Okorusu Fluorspar and Iron	2016 – current	Exploration, project management
Epembe Pyrochlore, Namibia	2017 - 2019	Project management
Lofdal REE, Namibia	2017 - 2019	Project administration

PUBLICATIONS

Calcrete, a cost-efficient natural building material for housing construction in Namibia: assessment of geological resources, properties, and economic viability. [2008], German Technical Cooperation (GIZ), Cooperation Project of Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Geological Survey of Namibia, Habitat Research & Development Center of Namibia (HRDC)

Industrial Minerals mined in Namibia, [2017], Cooperation Project of Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) and the Geological Survey of Namibia

REFERENCES

Mike Gipson, CEO, Gecko Holding (Pty) Ltd	Mobile SA +27 82 3762269, Mobile Nam +264 81 1262854
Dr Rainer Ellmies, Gecko Exploration (Pty) Ltd	Mobile 264 81 1225225
Veston Malango, CEO Chamber of Mines of Namibia	Mobile 264 81 1276381

More details can be provided on request.

Oliver Krappmann