

CURRICULUM VITAE: JANE BARRETT

PROFESSIONAL PROFILE

Jane is an experienced Environmental and Sustainability Consultant with a demonstrated history of working in the mining, renewable energies, construction and manufacturing industries.

She holds a BSc in Environmental Management and Botany, and has successfully completed certificated courses in project management, carbon foot printing and Environmental and Social Governance (ESG) reporting. She is currently enrolled for a Diploma in GHG Measurement and Verification.

Her interests lie in Net Zero Strategies, Life Cycle Thinking and the Circular Economy.

YEARS EXPERIENCE

12+ years

EMPLOYMENT HISTORY

Partner | Environmental & Sustainability Consultant

Cabanga Environmental, 2015 – current

- Client liaison, proposal preparation and review.
- Responsible for the overall management and execution of projects.
- Ensure alignment of projects with the applicable Environmental Legislation.
- Review and quality control of the unit's deliverables.
- Emissions Inventories, Carbon Accounting / GHG Emissions Reporting and Carbon Tax estimations.
- Compliance Auditing (e.g. EMP performance assessments, due diligence investigations, water use license audits including GN704).

Environmental Consultant

Cabanga Environmental, 2013 – 2015

- Environmental Screening, Pre-Feasibility and Feasibility Studies.
- Environmental Impact Assessments and Management Plans/Programmes.
- Permitting and Licensing in terms of the MPRDA. Including Section 102 and Section 11 applications.
- Environmental Authorisations and Licensing in terms of NEMA, NEMAQA, NEMWA, NWA and NHRA.
- Environmental Compliance Auditing.
- Stakeholder Engagement.

Environmental Project Manager

Cabanga Environmental, 2009 - 2013

- Project management, including reviewing and tracking project expenses.
- Supervising project assigned personnel and specialist sub-contractors.
- Liaising with other project-level functional leads (e.g. engineering) to assist them in integrating and/or addressing the applicable environmental requirements in their work products and activities.

Environmental Projects Assistant

Cabanga Environmental, 2006 – 2009

- Prepare applicable permit applications.
- Communicate and manage projects with subcontractors and specialists.
- Fieldwork, information gathering and data analysis.
- Assist with the compilation of impact assessments and technical documents.
- Stakeholder coordination and public participation.

PA to EXCO

Digby Wells & Associates, 2002 – 2006

Office Manager | Candidate Estate Agent

Realty Executives, 2000 - 2002

QUALIFICATIONS

2013 BSc Environmental Management & Botany, UNISA

2015 Short Course: Advanced Project Management, University of Cape Town, 2015

2015 Short Course: Carbon Footprint Analyst, Terra Firma Academy

PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

Certificated Natural Scientist: Environmental Scientist (Reg. No. 130485), South African Council for Natural Scientific Professions (SACNASP)

Member: International Association for Impact Assessment, South Africa (IAIASA)

Member: International Association for Public Participation, South Africa

Member: Greenhouse gas (GHG) Management Institute

Member: Environmental Law Association, South Africa

Member: Gauteng Department of Agriculture and Rural Development (GDARD) Environmental Assessment Practitioner's (EAP) Forum

CONTINUED PROFESSIONAL DEVELOPMENT

Carbon Tax Series Webinar, The Tax Faculty, 2022

Waste Management and Circular Economy Course, United Nations Institute for Training and Research, 2022

e-Learning Course on Science Based Targets, United Nations Global Compact Academy, 2022

Global Reporting Initiative (GRI) Disclosures Workshop, Environmental and Sustainability Solutions, 2021

GRI Certified Training Course based on the GRI Sustainability Reporting Standards, GRI Academy, 2021

Corporate Standard Training Webinar, The Greenhouse Gas Protocol, 2021

Short Course on the Health Effects of Climate Change, Harvard University via edX, 2020

Workshop on NEMA: The One Environmental System, Imbewu Sustainability Legal Specialists, 2015

Workshop on NEMA: Environmental Impact Assessment Regulations, Imbewu Sustainability Legal Specialists, 2015

Conference: NEMA and the Environmental Impact Assessment Regime, Gauteng Department of Agriculture and Rural Development, 2014

Workshop on NEM:Waste Management Act, Mac Roberts Attorneys, 2014

Workshop on Environmental and Mining Law, Mac Roberts Attorneys, 2013

3 Day Training on the South African Waste Legislation, Integrated Water and Waste Management Planning, CBS Solution, 2011

Workshop on National Environmental Management Act & NEM:Waste Act, EcoLaw, 2011

South African Property and Real Estate Law, Millpark, 2001

SELECTION OF PROJECT EXPERIENCE:

Schurvekop Colliery

Year: 2022 (current)

Client: Mmakau Coal (Pty) Ltd

Location: Bethal, Mpumalanga

- Application for mineral rights (coal) in terms of the MPRDA and submission via the SAMRAD portal.
- Scoping Report, Environmental Impact Assessment (EIA) & Environmental Management Programme (EMPr) for the environmental authorisation process, including stakeholder engagement.
- Application for an integrated water use license and compilation of the Integrated Water and Waste Management Plan (IWWMP).

Overlooked 11kV Powerline

Year: 2022 (current)

Client: Overlooked Colliery (Pty) Ltd

Location: Hendrina, Mpumalanga

- Environmental Screening Report and Enviro-Legal Review for the proposed 11kV powerline. Including motivation and application for authorisation of Water Uses in terms of GN509 of the NWA.

Waste Treatment Facility Screening Exercise

Year: 2022

Client: Siyanda Bakgatla Platinum Mine (Pty) Ltd

Location: Swartklip, Limpopo

- Environmental Screening Report and Enviro-Legal Review for the proposed pilot pyrolysis plant and organic waste treatment facility.

Halfgewonnen Solar PV Project

Year: 2022

Client: Dreamworks Haven Investments (Pty) Ltd

Location: Hendrina, Mpumalanga

- Application for authorisation of Water Uses in terms of GN509 of the NWA.

Tumelo Colliery Compliance Audits

Year: 2020 & 2022

Client: Tumelo Coal Mines (Pty) Ltd

Location: Pullenshope, Mpumalanga

- Compliance audit against the approved environmental authorisation & EMPr (NEMA).
- Compliance audit against the approved water use license and GN704 of the NWA.

Geluk & Goudlaagte Prospecting

Year: 2022

Client: Matsopa Minerals (Pty) Ltd

Location: Koppies, Free State

- Application for prospecting rights (bentonite) in terms of the MPRDA and submission via the SAMRAD portal.
- Basic Assessment Report (BAR) & EMPr for the environmental authorisation process, including stakeholder engagement.

Overlooked Alpha Emissions Reporting

Year: 2019 – 2021 (annually)

Client: Overlooked Colliery Alpha (Pty) Ltd

Location: Hendrina, Mpumalanga

- Compilation of an emissions inventory.
- Calculation of GHG emissions, and Carbon Tax estimations.
- Reporting via the NAEIS and SAGERS portals.

Tumelo Emissions Reporting

Year: 2019 – 2021 (annually)

Client: Tumelo Coal Mines (Pty) Ltd

Location: Pullenshope, Mpumalanga

- Compilation of an emissions inventory.
- Calculation of GHG emissions, and Carbon Tax estimations.
- Reporting via the NAEIS and SAGERS portals.

Union Mine Emissions Reporting

Year: 2019 – 2021 (annually)

Client: Siyanda Bakgatla Platinum Mine (Pty) Ltd

Location: Swartklip, Limpopo

- Compilation of an emissions inventory.
- Calculation of GHG emissions, and Carbon Tax estimations.
- Reporting via the NAEIS and SAGERS portals.

Overlooked Colliery Emissions Reporting

Year: 2019 – 2021 (annually)

Client: Overlooked Colliery (Pty) Ltd

Location: Bethal, Mpumalanga

- Compilation of an emissions inventory.
- Calculation of GHG emissions, and Carbon Tax estimations.
- Reporting via the NAEIS and SAGERS portals.

Benadeplaats Limestone Mine Annual Update of the IWWMP Report

Year: 2020 – 2021 (annually)

Client: G&W Base and Industrial Minerals (Pty) Ltd

Location: Slurry, North-West

- Review and contributing author of the IWWMP and Rehabilitation Strategy Implementation Plan (RSIP) report.

Mooinfontein Wash Plant Annual Closure & Rehabilitation Report

Year: 2019 – 2020 (annually)

Client: Eyethu Coal (Pty) Ltd /

Location: Witbank, Mpumalanga

- Annual closure and rehabilitation report as required in terms of the NEMA Financial Provision Regulations.

Overlooked Colliery Monitoring & Compliance

Year: 2016 – 2021 (annually)

Client: Overlooked Colliery (Pty) Ltd

Location: Bethal, Mpumalanga

- Environmental Officer Role: undertake monthly site inspections to monitor the effectiveness of mitigation measures as proposed by the EMPr. Including the review and management of the ongoing monitoring programme.
- Responsible for undertaking the Internal Compliance Audit against the approved water use license on an annual basis.

Tumelo Colliery Part 2 Amendment

Year: 2020

Client: Tumelo Coal Mines (Pty) Ltd

Location: Pullenshope, Mpumalanga

- EMPr amendment.
- Application to review and update of the integrated water use license, including stakeholder engagement.
- Compilation of the IWWMP

Benadeplaats Compliance Audits

Year: 2016 – 2021 (annually)

Client: G&W Base and Industrial Minerals (Pty) Ltd

Location: Slurry, North-West

- Compliance audit against the approved environmental authorisation & EMPr (NEMA).
- Compliance audit against the approved water use license and GN704 of the NWA.

Sudor Coal / Overlooked Alpha Section 11

Year: 2019

Client: Overlooked Colliery Alpha (Pty) Ltd

Location: Hendrina, Mpumalanga

- Completion and submission of the Section 11 Application in terms of the MPRDA for the transfer of Ownership from Sudor Coal to Overlooked Alpha for the Halfgewonnen and Weltevreden Collieries.

Verdoorskolk Prospecting

Year: 2018

Client: Witkop Fluorspar (Pty) Ltd / SA Lime

Location: Brandvlei, Northern Cape

- Completion of the Prospecting Right Application in terms of the MPRDA and submission via the SAMRAD portal.
- Contributing author and review of the BAR & EMPr.

Elikhulu Project for the re-processing of tailings

Year: 2018

Client: Evander Gold Mines (Pty) Ltd / Pan African Resources (PLC)

Location: Evander, Mpumalanga

- Responsible for managing the overall EIA process, to ensure alignment of the project with NEMA.
- Co-author of Scoping, EIA and EMP reports.

Uitkomst Colliery IWULA

Year: 2016

Client: Pan African Resources (PLC)

Location: Newcastle, KwaZulu Natal

- Application to review and update of the integrated water use license, including stakeholder engagement.
- Compilation of the IWWMP.

Prospect & Sahara Prospecting

Year: 2015

Client: Matsopa Minerals (Pty) Ltd

Location: Koppies, Free State

- Application for prospecting rights (bentonite) in terms of the MPRDA and submission via the SAMRAD portal.
- Basic Assessment Report (BAR) & EMPr for the environmental authorisation process, including stakeholder engagement.

IG Chem 24G Application

Year: 2015

Client: IG Chem (Pty) Ltd

Location: Olifantsfontein, Gauteng

- Application for rectification in terms of Section 24G of NEMA for activities associated with the storage and handling of dangerous goods. Compilation of the EMPr, and stakeholder engagement.

Pembani Coal IWULA

Year: 2015

Client: Pembani Coal Carolina (Pty) Ltd

Location: Carolina, Mpumalanga

- Application to review and update of the integrated water use license, including stakeholder engagement.
- Compilation of the IWWMP.

Weggelegen Colliery IWUL Compliance Audit

Year: 2015

Client: Iyanga Mining (Pty) Ltd

Location: Delmas, Mpumalanga

- Compliance audit against the approved water use license and GN704 of the NWA.

Koppies Bentonite Mine AEL

Year: 2015

Client: Matsopa Minerals (Pty) Ltd

Location: Koppies, Free State

- Application for an atmospheric emissions license (NEMAQA)



CURRICULUM VITAE: LELANI CLAASSEN

PROFESSIONAL PROFILE

Lelani started her career as an environmental consultant in 2008. She holds an Honours degree in Environmental Management from UNISA, which she completed whilst working as an environmental consultant following the successful completion of a BSc Degree in Landscape Architecture from the University of Pretoria. She has also successfully completed the SABS Short-course: Environmental Legal Requirements for ISO 14001 compliance. Her project experience is extensive in scope and covers various aspects of development including residential developments, filling stations and depots, infrastructure (pipelines, roads, power) and mining projects.

Lelani's experience includes environmental authorization processes: Basic Assessments, Environmental Impact Assessments, Environmental Management Plans and Programmes, Mining Right Applications, Water Use Licensing, Concept (Fatal Flaw), Pre-Feasibility and Feasibility Studies. She also has experience as an Environmental Control Officer on filling station and pipeline construction projects. Lelani has also completed numerous environmental compliance audits and environmental-legal compliance assessments.

In addition to projects throughout South Africa, Lelani completed an EIA which was approved in Zambia. She has travelled for work to the Democratic Republic of Congo (DRC) and Uganda. Lelani is familiar with the EIA process in Botswana and has assisted with Projects there as well.

Lelani is proficient on GIS software packages (ArcGIS, QGIS), the full MS Office suite, CorelDraw and AutoCAD.

Lelani is a Registered Environmental Assessment Practitioner (EAP) with the statutory body for EAPs in South Africa (EAPASA) (No 2018/153) and a Registered Scientist (Environmental Science) with the South African Council for Natural Scientific Professions (SACNASP) (121645).

QUALIFICATIONS

2011 - 2013	BSc. Hons. Environmental Management (UNISA)
July 2010	Short Course: SA Environmental Legal Requirements for ISO14000 (SABS)
2004 - 2007	BSc. Landscape Architecture (University of Pretoria)

YEARS EXPERIENCE

10 + years

EMPLOYMENT HISTORY

Cabanga Environmental: March 2018 – current
Position Held: Environmental Consultant.

Digby Wells and Associates (South Africa) (Pty) Ltd
January 2016 – March 2018. Position held: Environmental Consultant and Project Manager.

Mills and Otten Environmental Consultants CC. April – December 2015: Position Held: Environmental Scientist.

Exigo Sustainability (formerly Africa Geo-Environmental Services, AGES) 2010 – March 2015: Position Held: Environmental Consultant.

Eco Consult / E-Scap Landscapes: 2008 – 2009:
Position Held: Environmental Consultant and Landscape Technologist.

SELECTED PROJECT EXPERIENCE

EIA for Fairview TSF (2020)

Scope: EIA, EMP application for waste management license for proposed new Tailings Dam at the Fairview Gold Mine.

Client: Barberton Mines (Pty) Ltd: Fairview Mine

Location: Mpumalanga

Environmental and Legal Review: Save the Sands (2020)

Scope: Identify and Assess the legislation relevant to the management of the Sand River and its Catchment and investigate the current activities and infrastructure impacting on River Flow.



SELECTED PROJECT EXPERIENCE (continued)

Legal Registers and Legal Audits (2020)

Scope: Compilation of Environmental-Legal Registers and undertaking of Legal Audits at Halfgewonnen and Weltevreden Collieries.

Client: Overlooked Colliery Alpha (Pty) Ltd

Location: Mpumalanga

Compliance Audits (2018 – 2020)

Scope: Undertaking of various Compliance Audits against conditions of Environmental Authorisations, EMPs, Waste Management Licenses and/or Water Use Licenses (as relevant) for Halfgewonnen Colliery; Weltevreden Colliery; Evander Gold Mines Elikhulu Project (Mpumalanga); Enviroshore Refiners Cato Ridge Plant; Uitkomst Colliery; Wykom Siding (KwaZulu-Natal); Koppies Bentonite Mine (Free State);

Financial Provision Reporting (2018 – 2020)

Scope: Compilation of integrated Final Rehabilitation, decommissioning and closure plans, annual rehabilitation plans and environmental risk assessments, and annual updates of these plans, for various mines throughout South Africa including: Chelmsford, Da-Ma and Uitkomst Collieries in KwaZulu-Natal; Vlaklaagte, Welgelegen, Klipfontein, Overlooked Collieries in Mpumalanga Province; Koppies Bentonite Mine, Free-State Province; Benadeplaats Limestone Mine, North-West Province

Environmental Consulting Services for Enviroshore Cato Ridge (2018)

Scope: Provision of specialist advice and input to written representations to the Competent Authorities.

Client: Enviroshore Refiners (Pty) Ltd: Cato Ridge Plant

Location: KwaZulu-Natal

Chelmsford Colliery Amendment (2018)

Scope: Basic Assessment and EMP Amendment for mining of additional areas at the Chelmsford Colliery.

Client: Future Coal (Pty) Ltd

Location: KwaZulu-Natal

Springlake Environmental Due Diligence (2018)

Scope: Environmental Due Diligence investigation to identify risks and liabilities to the potential buyer.

Client: Private

Location: KwaZulu-Natal

SELECTED PROJECT EXPERIENCE (continued)

Environmental Audits for Gold Dump Reclamation (2017)

Scope: Undertake environmental compliance audits for the reclamation of historic Gold Dumps from past gold mining throughout the east- and west- rand of Johannesburg by Crown Mines, City Deep, Knights Mining, ERPM and ERGO Mining (including the operation of Brakpan and Withok Tailings Dams).

Client: ERGO Mining / DRD Gold

Location: Gauteng

Environmental Audit for Kibali Gold Mine (2017)

Scope: Environmental Compliance Audit for the Kibali Gold Mine, DRC.

Client: Rand Gold

Location: Doko, DRC

Environmental Consulting Services for AIFA (2017)

Scope: Undertake Environmental Assessment (with noise specialist) and advise on environmental-legal and permitting requirements for the activities of the AVIC International Flight Training Academy (AIFA) and related infrastructure at Oudtshoorn Air Field. Undertake Compliance Audit against AIFA's EMP.

Client: AIFA

Location: Oudtshoorn, Western Cape

HCI Coal: Environmental Legal Compliance Audits for Palesa and Mbali Coal Mines (2016 and 2017)

Scope: EMP Performance Assessments, Environmental-Legal Compliance Audits and Environmental Risk Assessments (including workshop facilitation)

Client: HCI Coal (Pty) Ltd

Location: Mpumalanga

Copper Sunset Audits and Expansion Application (2016)

Scope: Undertake EMP compliance Audits at the Copper Sunset Sand Mining Operation. Undertake applications for expansion of the Mining Area.

Client: Copper Sunset Sands

Location: Free-State

Due Diligence: Anderbolt Warehouse (2016)

Scope: Undertake high-level environmental due diligence and contamination assessment of industrial warehouse property in Anderbolt, on behalf of potential investor/purchaser.

Client: EDF Fenice (Italy)

Location: Boksburg, Gauteng



SELECTED PROJECT EXPERIENCE (continued)

Sekgame Electricity expansion project (2015)

Scope: EIA (Basic Assessment) and EMP for the development of the Sekgame switching station and associated electricity distribution infrastructure at Sishen Iron Ore Mine.

Client: Kumba Iron Ore, Sishen Iron Ore Company (Pty) Ltd

Location: Northern Cape

Duikerfontein Gravel Mine (2015)

Scope: EIA and EMP as part of application for Mining Rights and EA (including public participation), for the Mining of Quartzite and Sandstone.

Client: Labonte 5(Pty) Ltd

Location: Limpopo

Kitumba Copper-Gold Project (2014)

Scope: Environmental Impact Assessment and Management Plan, following environmental feasibility and Scoping Analysis for the Kitumba Copper-Gold Project (according to Zambian legislation and international standards).

Client: Blackthorn Resources

Location: Mumbwa, Zambia

Zandkopsdrift Rare Earth Project (2014)

Scope: Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP), as part of an Application for Environmental Authorisation (EA) and Mining Rights (including Public Participation) for the development of an opencast Rare Earth Mine and processing facility, including associated infrastructure (roads, pipelines, electricity distribution).

Client: Sedex Minerals

Location: Northern Cape

Mokolo River Sand Mine (2013)

Scope: EIA and EMP as part of the Section 24G Application for Rectification (including public participation), for the Mining of Sand from 20km of the Mokolo River.

Client: Labonte 5(Pty) Ltd

Location: Limpopo

SELECTED PROJECT EXPERIENCE (continued)

Sishen Concentrates Project (2012)

Scope: Scoping and EIA in support of application for EA for the reclamation of DMS thickener underflows at the Sishen Iron Ore Mine. The project proposed the construction of an additional processing facility and associated pipelines and waste management infrastructure.

Client: Sishen Iron Ore Company (Pty) Ltd

Location: Northern Cape

Delf Cullinan Sand Mine (2012)

Scope: Basic Assessment and EMP for the application for EA (Including Public Participation) for the proposed mining of sand.

Client: (Delf Sand (Pty) Ltd

Location: Gauteng

Zandkopsdrift Rare Earth Project (2012)

Scope: Input to the Concept Development and Pre-Feasibility Studies for the development of a Rare Earth Mine and associated infrastructure.

Client: Sedex Minerals

Location: Northern Cape

Sentech Telecommunications Mast (2010)

Scope: Basic Assessments, EMPs and Public Participation for application for Environmental Authorisation for various telecommunication masts.

Client: Sentech

Location: Gauteng and Eastern Cape

City of Tshwane Bulk Infrastructure Upgrades (2009)

Scope: Applications for Environmental Authorisation, including reporting and public participation for infrastructure upgrades (roads and stormwater) in Soshanguve.

Client: City of Tshwane Metropolitan Municipality (Roads and Stormwater Section, and Environmental Management Section)

Location: Gauteng

New Pinehaven (K72) interchange (2008)

Scope: The project related to the proposed new P126-1/39/1 Interchange (fly-over road) and required an EIA, Lelani compiled the Maps for the Reports.

Client: Mogale City Local Municipality

Location: Gauteng



CURRICULUM VITAE: KEN VAN ROOYEN

SUMMARY PROFILE

Ken started his career working as an Exploration Geologist in 1987 after which he specialised in Environmental Management, working both within the Mining Industry and then as an Environmental Consultant.

His main areas of interest are:

- the design, management and repair of waste facilities;
- rehabilitation planning and modelling;
- risk assessment; and
- quantifying environmental liabilities.

He obtained a Masters degree in Geography based on his final dissertation entitled "*An integrated method of coal discard and slurry disposal to reduce the environmental impact from coal residue*".

Ken's project experience is extensive in scope and covers various developments including agricultural and residential developments, power generation, infrastructure and mining projects. In addition to working on projects throughout South Africa, Ken has worked in Botswana, Mozambique, Zimbabwe, Zambia, Madagascar, Sierra Leone, Rwanda, Mali, Nigeria and the United States of America.

He has presented at numerous local and international forums on issues such as waste management, integrated environmental management and sustainability. As well as represented companies on various committees and advisory groups e.g. the Atmospheric Pollution Prevention Committee, the Water Research Commission (Vaal Barrage), the National Groundwater Quality Management Strategy Advisory Group, the Inkomati-Usuthu Catchment forum and many more.

EXPERIENCE

30+ years

QUALIFICATIONS

MSc Geography, Rand Afrikaans University, 1991

BSc Hons. Geography, Geomorphology & Climatology, Rand Afrikaans University, 1989

BSc Earth Science, Geology & Geography, Rand Afrikaans University, 1986

PROFESSIONAL MEMBERSHIPS & AFFILIATIONS

Registered with the South African Council for Natural Scientists (**SACNASP**), Pr.Sci.Nat Reg. 400121/93

Member of the International Association for Impact Assessment, South Africa

Member of the Geological Society of South Africa

Associate Member of Environmental Earth Science Group

SHORT COURSES

Carbon Footprint Analyst, Terra Firma Academy, currently completing

WRSM/Pitman model and WR2012, Bailey and Pitman Water Resources, 2020

SAMREC Code, Geological Society of South Africa, 2020

Financial Provision Regulations & Mine Closure Liabilities, Imbewu, 2016

Mining & Rehabilitation Modelling, Modelmakers, 2014

NEM:Waste Management Act, Mac Roberts Attorneys, 2014

Environmental and Mining Law, Mac Roberts Attorneys, 2013

Integrated Environmental Management Course (I.E.M.), 1991. Received group projects award.

Geographical Information Systems (GIS), Honours Level, 1991

EMPLOYMENT HISTORY

Cabanga Environmental: 2006 – current

Position Held: Managing Member

Digby Wells & Associates: 1995 – 2006

Last Position Held: Executive Director

Rand Mines: 1989 – 1994

Last Position Held: Group Environmental Scientist

Ecological Evaluators: 1988 – 1989

Position Held: Environmental Consultant

Rand Mines, Durban Roodepoort Deep and Blyvoor Gold: 1987 – 1988

Last Position Held: Surface and Underground Geologist

SELECTED PROJECT EXPERIENCE

Pre-Feasibility & Feasibility Assessments

Scope: Assessing the viability of a development from an environmental perspective. Identifying potential issues and risks to the successful completion of the project and proposing mitigatory measures where appropriate.

Client: Various -

- Tumelo Coal Mines, Tumelo Colliery 4 Seam Project, Mpumalanga Province (2019)
- Future Coal, Chelmsford Colliery, Macclesfield Opencast, KwaZulu-Natal (2018)
- Optimum Coal, Marion 4 Dragline Crossing, Mpumalanga (2017)
- Mmakau Coal, Schurvekop Colliery, Mpumalanga (2017)
- Evander Gold Mines, Elikhulu Re-processing Project, Mpumalanga Province (2016)
- Tinco Investments, Rutonga Mining Operation, Rwanda (2013)
- Tinco Investments, Nyakabingo Mining Operation, Rwanda (2013)
- Badger Mining and Consulting, Sakoa Coal, Madagascar (2012)

Rehabilitation Modelling & Assessment of Financial Liabilities

Scope: Modelling of the final landform for various mining operations, and calculating the environmental liabilities associated therewith.

Client: Various -

- Tumelo Coal Mines, Tumelo Colliery, Mpumalanga (2020)
- Eyethu Coal, Mooifontein Colliery (Washplant) (2019 - 2020)
- Iyanga Mining, Klipfontein Colliery (2019 - 2020)
- G&W Base and Industrial Minerals, Boane Bentonite Mine, Mozambique (2016 – 2019)
- MC Mining, Uitkomst Colliery, Kwa-Zulu Natal (2016 – 2019)
- Matsopa Minerals, Benadeplaats Limestone Mine, North-west Province (2016 - 2020)
- G&W Base and Industrial Minerals, Koppies Bentonite Mine, Free State (2016 – 2020)
- Witkop Fluorspar, Witkop Mine, North-west Province (2017)
- Optimum Coal, Optimum Colliery, Mpumalanga (2017)

Environmental Advisory, ECO Services & Technical Reviews

Client: Various -

- Pan African Resources, Technical Review and Opinion of the Sasol Secunda UG Water Storage Risk Assessment, Mpumalanga (2020)
- Sabi Sand Conservation Trust, Save the Sands Project, Independent Environmental Review: Current status of development affecting the Sand River, Mpumalanga (2020)
- Overlooked Colliery, Strategic Environmental Advisor and ECO services, Mpumalanga (2016 - current)



SELECTED PROJECT EXPERIENCE (continued)

- Droogvallei Rail Siding Company, Strategic Environmental Advisor and ECO services, Mpumalanga (2012 – 2019)
- Idwala Coal, River Reinstatement, Project Management and ECO services for the Reinstatement and Rehabilitation of the tributary to the Rietspruit River, Mpumalanga (2017)
- Evander Gold Mines, Internal Review and Approval of the Environmental Reports for the Elikhulu Project, Mpumalanga (2016)
- Worldwide Coal Carolina (Pembani Coal), Strategic Environmental Advisor for the Groenvallei Colliery, Mpumalanga (2006 – 2015)
- IG Chem, Olifantsfontein Plant, Internal Review and Approval of the 24G EMP, Gauteng (2015)
- Logistics Intelligence Siding Depot, Internal Review and Approval of the EMP for the Upgrade and Operation of a Siding Depot, Gauteng (2015)
- Shanduka Coal (Glencore Coal South Africa), Strategic Environmental Advisor for Mpumalanga and KwaZulu-Natal operations (2006 – 2014)
- Overlooked Colliery, Technical Review and Contributing Author of Mine Works Programme, Mpumalanga (2013)
- Ludwich's Landscapes and Water Features, Internal Review and Approval of the EMP for Kya Sands Industrial Township, Gauteng (2013)
- Shanduka Coal (Glencore Coal South Africa), Internal Review and Approval of the EMP for the MTC Water Treatment Plant, Mpumalanga (2013)
- Eskom SOC Ltd and Shanduka Coal, Internal Review and Approval of the EMP for the Deviation and Re-alignment of a 400kv powerline
- West Middelburg Community Forum, Establishment and Facilitation of the Middelburg Community Forum (2009 – 2012)

- Worldwide Coal (Pembani Coal), Ebuhleni Township Development, Mpumalanga. Internal Review and Approval of the Basic Assessment Report and EMP for the development of twenty two (22) RDP style houses (2009)

Mine Residue Management

Scope: Conceptual design and remediation of various waste management facilities throughout South Africa, including:

- Iscor Vanderbijl, conceptual design of the slag dump
- Durban Roodepoort Deep, conceptual design of the tailings facility
- Duiker Mining, Tselentis Colliery, conceptual design of co-disposal dump
- Vansa Vanadium remediation and extension of the mine residue facility
- Duiker Mining, Spitzkop Colliery, remediation of the burning discard dump
- Union Colliery, remediation of burning discard dump