

CURRICULUM VITAE

JO-ANNE THOMAS

Profession : Environmental Consultant
Specialisation : Environmental Management; Strategic environmental advice;
Environmental compliance advice & monitoring; Environmental Impact Assessments; Policy, strategy & guideline formulation; Project Management; General Ecology
Years experience : Fourteen (14) years in the environmental field

KEY RESPONSIBILITIES

Provide technical input for projects in the environmental management field, specialising in Strategic Environmental Advice, Environmental Impact Assessment studies, environmental permitting, public participation, Environmental Management Plans and Programmes, environmental policy, strategy and guideline formulation, and integrated environmental management. Key focus on integration of the specialist environmental studies and findings into larger engineering-based projects, strategic assessment, and providing practical and achievable environmental management solutions and mitigation measures. Responsibilities for environmental studies include project management; review and manipulation of data; identification and assessment of potential negative environmental impacts and benefits; review of specialist studies; and the identification of mitigation measures. Compilation of the reports for environmental studies is in accordance with all relevant environmental legislation.

Undertaking of numerous environmental management studies has resulted in a good working knowledge of environmental legislation and policy requirements. Recent projects have been undertaken for both the public- and private-sector, including compliance advice and monitoring, electricity generation and transmission projects, various types of linear developments (such as National Road, local roads and power lines), waste management projects (landfills), mining rights and permits, policy, strategy and guideline development, as well as general environmental planning, development and management.

SKILLS BASE AND CORE COMPETENCIES

- Project management for a range of projects
- Identification and assessment of potential negative environmental impacts and benefits through the review and manipulation of data and specialist studies
- Identification of practical and achievable mitigation and management measures and the development of appropriate management plans
- Compilation of environmental reports in accordance with relevant environmental legislative requirements
- External and peer review of environmental reports & compliance advice and monitoring
- Formulation of environmental policies, strategies and guidelines
- Strategic and regional assessments; pre-feasibility & site selection
- Public participation processes for a variety of projects
- Strategic environmental advice to a wide variety of clients both in the public and private sectors
- Working knowledge of environmental planning processes, policies, regulatory frameworks and legislation

EDUCATION AND PROFESSIONAL STATUS

Degrees:

B.Sc Earth Sciences, *University of the Witwatersrand, Johannesburg*, 1993

B.Sc Honours in Botany, *University of the Witwatersrand, Johannesburg*, 1994

M.Sc in Botany, *University of the Witwatersrand, Johannesburg*, 1996

Courses:

Environmental Impact Assessment, *Potchefstroom University*, 1998

Environmental Law, *Morgan University*, 2001

Professional Society Affiliations:

Professional Natural Scientist (Registration No 400024/00).

EMPLOYMENT

Current: Director of Savannah Environmental (Pty) Ltd. Independent specialist environmental consultant

October 1997-November 2005: Bohlweki Environmental (Pty) Ltd: Senior Environmental Scientist; Environmental Management and Project Management

January to July 1997: Junior Science Teacher, Sutherland High School, Pretoria

PROJECT EXPERIENCE

Current projects include:

Compliance Monitoring

- ECO compliance monitoring for the construction of the De Hoop Dam and the deviation of the R555, Limpopo Province
- Project manager – ECO compliance monitoring for the rehabilitation of Blaauwpan Dam, Gauteng Province
- Project manager – ECO compliance monitoring for the expansion of Waterval WCW, Gauteng Province
- Project manager - ECO compliance monitoring for the Mine Water Recovery Project at Duvha Power Station, Mpumalanga Province

Electricity Sector Projects: Wind Energy

- Project manager for the proposed EXXARO West Coast wind energy facility and associated infrastructure at a site within the Western Cape (for EXXARO Resources)
- Project manager for the proposed Oyster Bay wind energy facility, Eastern Cape Province (for Renewable Energy Resources Southern Africa)
- Project manager for the proposed Spitskop Bay wind energy facility, Eastern Cape Province (for Renewable Energy Resources Southern Africa)
- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site within the Western Cape (for Eskom Generation)
- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site near Hopefield, Western Cape Province (for Umoya Energy)

- Project manager for the proposed Klipheuwel/Dassiesfontein wind energy facility and associated infrastructure at a site within the Overberg area of the Western Cape (for BioTherm Energy)
- Project manager for the proposed Suurplaat wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Project manager for the proposed West Coast One wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Project manager for the proposed Rhebokfontein wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Basic Assessment for proposed wind monitoring masts on a site north of Koekenaap, Western Cape Province (for EXXARO Resources)
- Basic Assessment for proposed wind monitoring masts on a site in the Overberg area, Western Cape Province (for BioTherm Energy)
- Basic Assessment for proposed wind monitoring masts on a site near Beaufort West, Western Cape Province (for Umoya Energy)
- Basic Assessment for proposed wind monitoring masts on a site near Laingsburg, Western Cape Province (for Umoya Energy)

Electricity Sector Projects: Solar Energy

- Project manager for the EIA and EMP for two PV sites within the Western and Northern Cape Provinces (for INCA Energy)
- Project manager for the Basic Assessment and EMP for PV site within the Northern Cape Province (for INCA Energy)
- Project manager for the EIA and EMP for the proposed Waterberg PV plant, Limpopo Province (for Thupela Energy)
- Project manager for the EIA and EMP for the proposed Project Ilanga (125MW CSP facility) near Upington, Northern Cape Province (for Ilangethu Energy)
- Project manager for the EIA and EMP for two PV sites within the Northern Cape Province (for MedEnergy Global)
- Project manager for the Basic Assessment and EMP for PV sites within 4 ACSA airports within South Africa (for ACSA PV)
- Project manager for the Basic Assessment and EMP for a PV site near Rustenburg, North-West Province (for Momentous Energy)

Electricity Sector Projects: Eskom

- Project manager for the EIA and EMP for the proposed Mokopane Integration Project, Limpopo Province (for Eskom Transmission)
- Project manager for the proposed transmission lines from the Koeberg-2 Nuclear Power Station site, Western Cape Province (for Eskom Transmission)
- Project manager for the proposed Tshwane strengthening project, Phase 1, Gauteng Province (for Eskom Transmission)
- Project manager for the EIA and EMP for the proposed Kyalami Strengthening Project, Gauteng Province (for Eskom Transmission)
- Project manager for the EIA and EMP for the proposed Steelpoort Integration Project, Limpopo Province (for Eskom Transmission)
- Project manager for the EIA and EMP for the proposed conversion of the existing Open Cycle Gas Turbine (OCGT) Ankerlig Power Station (located in Atlantis Industria) to a Combined Cycle Gas Turbine (CCGT) power station, and the associated 400 kV transmission power line between Ankerlig Power Station and the Omega Substation (for Eskom Generation)

- Project manager for the EIA and EMP for the proposed conversion of the existing Open Cycle Gas Turbine (OCGT) Gourikwa Power Station (located near Mossel Bay) to a Combined Cycle Gas Turbine (CCGT) power station, and the associated 400 kV transmission power line between Gourikwa Power Station and the Proteus Substation (for Eskom Generation)

Strategic and Regional Assessments

- Strategic Assessment for the location of wind energy facilities within the Western Cape Province (for Western Cape Department of Environmental Affairs and Development Planning)
- Regional Assessments for wind energy developments within identified areas in the Overberg Area of the Western Cape Province (for BioTherm Energy)
- Regional Assessment for wind energy developments within an identified area in the Sutherland Area of the Northern and Western Cape Province (for Investec Bank Limited)
- Regional Assessment for wind energy developments within an identified area on the West Coast of the Western Cape Province (for Investec Bank Limited)
- Regional Assessment for wind energy developments within an identified area on the West Coast of the Western Cape Province (for Eskom Holdings Limited)

Environmental Management Tools

- Review the effectiveness and efficiency of the environmental impact management (EIA) system in South Africa on behalf of the Department of Environmental Affairs and Tourism
- Development of a comprehensive site-specific EMP for the construction and operation of the Eskom Braamhoek Integration Project, Free State and KwaZulu-Natal Provinces
- Compilation of Provincial Guidelines for off-road routes within the Western Cape Province
- Water use permit applications for water use at Tiffindell Ski Resort, Eastern Cape Province
- Water use permit applications for various properties within the Olifants West Game Reserve, Limpopo Province
- Environmental Risk Analysis for Salbro Property Holdings, Gauteng Province
- Project integration and compilation of a Strategy for Sustainable Development for Gauteng Province
- Advice regarding environmental compliance of existing and future development at Tiffindell Ski, Eastern Cape Province
- Advice regarding environmental compliance at Salberg factory, Gauteng Province

Peer Review

- Review of EIAs submitted in terms of the ECA for the Northern Cape Department of Tourism, Environment and Conservation, including:
 - * EIA for a new wastewater treatment works in Warrenton
 - * EIA for chicken layer houses in Kimberley
 - * EIAs for the upgrading of petrol stations in Kimberley
 - * EIA for a new up-market residential development in Kathu
 - * EIA for residential development in Kimberley
- Review of EIA and EMP for the proposed Waterfall Wedge development, Gauteng Province

Infrastructure Projects

- Project manager for the EIA and EMP for the proposed bridge across the Ngotwane River located on the border of South Africa and Botswana

Mining Sector Projects

- Environmental Impact Assessment and Environmental Management Programme in terms of the MPRDA for the proposed Elitheni Coal Mine near Indwe, Eastern Cape Province
- Environmental Management Programmes for three borrow pits associated with the proposed Groot Letaba River Development Project, Limpopo Province

Water resources projects

- Project manager for the EIA and EMP for the proposed modification of the existing Hartebeestfontein Water Care Works, Gauteng Province (for ERWAT)
- Project manager for the EIA and EMP for the proposed expansion of the existing Welgedacht Water Care Works, Gauteng Province (for ERWAT)

Projects undertaken on behalf of Bohlweki Environmental include:

Specialist projects

- Development of an Environmental Policy for the Ekurhuleni Metropolitan Municipality
- Development of an Integrated Environmental Policy for the City of Tshwane Metropolitan Municipality Environmental Opportunities and Constraints Assessment for the Wonderboom Airport
- Review of the State of the Environment Report for the North West Province

Transport sector projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed N2 Wild Coast Toll Road between East London (Eastern Cape) and Durban (KwaZulu-Natal)
- Environmental input to the Denneboom Local Integrated Transport Plan
- Environmental input to the Ekurhuleni transportation corridors study
- Environmental Impact Assessment for the proposed Platinum Highway from Warmbaths via Pretoria to Skilpadhek (on the South Africa-Botswana border), including obtaining all environmental permits required.
- Environmental Scoping Study and public participation process for the upgrading of Provincial Main Road 100 between the intersection with Main Road 521 and Ndwedwe
- Environmental Management Plan for repairs of portions of the N3 and N1, Gauteng
- Environmental Scoping Study and public participation process for the Kingsway Relief Road in Maseru, Lesotho

Electricity Sector projects

- Project manager for the undertaking of an EIA and compilation of an EMP for the proposed Open Cycle Gas Turbine (OCGT) Power Station and associated 400 kV Transmission lines and substation at Atlantis, Western Cape Province
- Environmental Scoping Study for a new coal-fired power station in the Lephalale area, Limpopo Province
- Project manager for the undertaking of Environmental Scoping Study and compilation of an Environmental Management Plan for various 132 kV Sub-Transmission lines and substations within the Mpumalanga Province
- Detailed Environmental Scoping Study and public participation for the proposed Capacity Increase Project at Arnot Power Station, Mpumalanga Province
- Project manager for the undertaking of an Environmental Scoping Study and EMP for the proposed 132 kV sub-Transmission line between the GaRankuwa and Dinaledi substations, North West Province

- Project manager for the undertaking of an EIA for the proposed 765 kV Transmission line between the existing Hydra Substation (near De Aar) and the proposed Gamma Substation (near Victoria West), Northern Cape Province
- EIA & public participation for the proposed new Ikaros Substation and associated 400 kV Transmission line infrastructure, North West Province
- Environmental Scoping Study public participation for the Establishment of Eskom Infrastructure for Power Supply to the C-Cut Development at Premier Mine, Cullinan, Gauteng Province
- EIA & public participation for the proposed 3rd 400 kV Transmission line between the Poseidon and Grassridge Substations in the Eastern Cape Province
- EIA & public participation for the proposed new 400 kV Transmission line between Matimba Substation (near Lephalale) and Witkop Substation (near Polokwane), Limpopo Province
- Environmental Impact Study and public participation for the proposed 2nd 400 kV Transmission line between the Grassridge Substation and the Poseidon Substation in the Eastern Cape.
- Public Participation Process for the proposed Return-to-Service of the Camden Power Station, Mpumalanga Province
- Detailed Environmental Scoping Study and public participation for the Breyten Strengthening Project: proposed new Breyten Substation and associated 88 kV Distribution line, Mpumalanga Province
- Environmental Pre-Scoping Study for the proposed Concentrating Solar Plant, in the Northern Cape Province
- Environmental Impact Assessment public participation for the proposed new nine 132 kV power lines between the Grassridge Substation and the Coega Industrial Development Zone, Eastern Cape Province

Pipelines

- Environmental Impact Assessment for the proposed Petronet New Multi-Products Pipeline (NMPP) between Durban and Gauteng Province
- Exemption application for the construction of a gas pipeline between Majuba Mine and Majuba Power Station, Mpumalanga Province.
- Exemption application for the construction of an emergency water supply pipeline from Mamelodi to Ekandustria via Cullinan, Gauteng Province.
- Environmental Scoping Study for the installation of a new water supply pipeline from Centurion to Diepsloot, Gauteng Province.

EIAs for Technology projects

- Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at Alpha's ULCO Plant near Kimberley in the Northern Cape Province
- Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at Dudfield Plant, North West Province
- Environmental Impact Assessment for the proposed Blending Platform to be established within the Gauteng Province
- Investigation of possible alternative Scrap tyre collection and disposal strategies in Gauteng, South Africa

Mining sector projects

- Environmental Management Programme Report (EMPR) for the proposed small-scale kaolin clay mine near Ndwedwe, KwaZulu-Natal Province

- Environmental Management Programme Report (EMPR) for prospecting activities within the Premier Mine Game Farm, Cullinan for De Beers Consolidated Mines Limited
- Environmental Management Plan for the Proposed C-Cut Development at Premier Mine, Cullinan
- Environmental Management Programme Report for the Proposed C-Cut Development at Premier Mine, Cullinan
- Environmental Impact Assessment and public participation process for the Proposed C-Cut Development at Premier Mine, Cullinan

Development projects

- A detailed Environmental Scoping Study and public participation process for the Thaba ya Batswana Development on portions of the Farm Rietvlei 101 IR, Gauteng
- Environmental Scoping Report and public participation process for the development of a Community Safety Centre in Khutsong-South, Carletonville

Water resources projects

- A detailed Environmental Impact Assessment of new regional water care infrastructure in the DD5A sub-drainage district in Eastern Gauteng (adjacent to the Blesbokspruit Ramsar Site) for the East Rand Water Care Company (ERWAT)

CURRICULUM VITAE

RAVISHA AJODHAPERSADH

Profession : Environmental Consultant at Savannah Environmental
Specialisation : Environmental Management
Years experience : Five

KEY RESPONSIBILITIES

- Providing consulting services to clients for Environmental-related matters.
- Conducting Environmental Impact Assessment (EIA) processes.
- Preparation of EIA reports.
- Environmental Compliance Auditing and Environmental Control Officer (ECO) services.
- Project management.

SKILLS BASE AND CORE COMPETENCIES

- EIA Reporting
- Site Investigations
- Environmental Auditing and compliance monitoring
- Co-ordination and management of project teams
- Co-ordinating and conducting Public Involvement processes.
- Administrative tasks (minutes of meetings)
- Research

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- B Soc Sci (Environmental Management) obtained from the University of Natal in 2005.
- (Hons) (BSc) (Environmental Management) obtained from the University of South Africa in 2010.

Courses:

- Attended an EIA training course conducted by Dekra Norisko in 2008.
- Attended a Wetlands Course by the WESSA and the Department of Water Affairs and Forestry in 2008.

EMPLOYMENT

1. September 2009 – Present

Name of Employer: Savannah Environmental

Position: Environmental Consultant

2. May 2009 – August 2009

Name of Employer: Environmental Impact Management Services

Position: Environmental Control Officer

3. June 2007 – April 2009

Name of Employer: Nemai Consulting

Position: Environmental Consultant

PROJECT EXPERIENCE: ENVIRONMENTAL IMPACT ASSESSMENTS

1. **Scoping Report** for the Proposed Flagging Trees Wind Energy Facility, near Middelburg, Eastern Cape Province.
2. **Scoping, EIA Report & EMP** for the Proposed Suurplaat Wind Energy Facility, near Sutherland Western and Northern Cape Provinces.
3. **Scoping, EIA Report & EMP** for the West Coast One Wind Energy Facility, Western Cape.
4. **Scoping, EIA Report & EMP** for the Rhebokfontein Wind Energy Facility, Western Cape.
5. **Scoping Report** for the Uyekraal Wind Energy Facility near Vredenburg, Western Cape.
6. **Scoping, EIA Report & EMP** for the Hidden Valley Wind Energy Facility, Northern Cape.
7. **Scoping Report** for a Wind Energy Facility near Britannia Bay, Western Cape.
8. **Scoping, EIA Report & EMP** for a Photovoltaic Solar Plant near Upington, Northern Cape.
9. **Scoping, EIA Report & EMP** for the Kleinbegin Photovoltaic Solar Plant near Groblershoop, Northern Cape.
10. **Scoping, EIA Report & EMP** for the Morgenzon Photovoltaic Solar Plant, Northern Cape.
11. **Scoping, EIA Report & EMP** for the Hertzogville Photovoltaic Solar Plant, Free State.
12. **Scoping, EIA Report & EMP** for the Hartebeestpan Photovoltaic Solar Plant near Christiana, North-West.
13. Basic Assessment Process for the Middleburg Solar Park, Eastern Cape.
14. Basic Assessment Process for the Tollie Photovoltaic Solar Plant near Noupoort, Eastern Cape.
15. Basic Assessment Process for the Dida Photovoltaic Solar Plant near Noupoort, Eastern Cape.
- 16.
17. Basic Assessment Process for Wind Monitoring Masts, near Britannia Bay, Western Cape Province.
18. Basic Assessment Process for the Amakhala Emoyeni Wind Monitoring Masts, between Bedford and Cookhouse, Eastern Cape Province.
19. Basic Assessment Process for Wind Monitoring Masts, near Vredenburg, Western Cape Province.
20. Basic Assessments for Sections (Section 1, Section 2 & Section 10 – Soweto) of the Rea Vaya Bus Rapid Transit System and road upgrade (under Nema Consulting) for the Johannesburg Development Agency (2008-2009).
21. Waste Licencing for Transnet Freight Rail for the Remediation of Asbestos Contaminated Land at Railway Stations in Limpopo and Mpumalanga.

ENVIRONMENTAL COMPLIANCE AUDITING AND ECO

1. **Environmental Control Officer** (monthly audits) undertaking environmental monitoring for the Waterval Water Care Works on behalf of ERWAT (2010 – current).
2. **Environmental Control Officer** (full time, daily auditing) for Transnet's New Multi-Product Pipeline, duties include environmental auditing, preparing daily reports, weekly reports and monthly reports (2009) under IEMS.
3. **Environmental Control Officer** (weekly auditing) for the rehabilitation of Blaauwpan

Dam due to aviation fuel spillages from O.R Tambo Airport on behalf of the Airports Company of South Africa (2010).

PUBLIC PARTICIPATION AND ENVIRONMENTAL EDUCATION / AWARENESS PROGRAMMES

1. Assisted in conducting the EIA for the Neptune-Poseidon 300KV Transmission Lines, for Eskom (2008-2009).
2. Conducted the **public participation process** for the Fischer-Tropsch Wax Expansion Project, for Sasol (Ltd) (2007-2008).
3. Implemented and managed the Klipspruit River and Wetlands Cleanup, for the Gauteng Department of Agriculture Conservation and Environment. Responsibilities included managing 87 employees, preparation of annual, quarterly and monthly reports, and hosting monthly community and stakeholder meetings (2007 – 2008).
4. Implemented and managed the Bertrams Environmental Education Programme, for the Johannesburg Development Agency. Responsible for the project operations, report writing, event co-ordination, training and capacity building of employees, conducting waste audits and stakeholder engagement (2007- 2008).
5. Implemented and managed the Rehabilitation of illegal dumpsites: **Waste Education Programme** in Soweto, for Pikitup. Duties entailed training and managing the waste awareness team, conducting site visits, dumpsite rehabilitation monitoring and mapping on GIS (2009).
6. Conducted a **feasibility study** for the development of a recycling centre in Alexandra, Jhb for Pikitup. Duties entailed extensive research, conducting a survey, waste audit, analyzing social and environmental dimension of the proposed project and compiling the report. (2008-2009).
7. Assisted in the **Development and Implementation of the Integrated Environmental Management Series**, for the Department of Water Affairs and Forestry (DWAF). Project included developing training manuals, user friendly documents, presentations and launching an environmental decision support system for DWAF (2007- 2009).
8. Undertook the **public participation** for the Sasol's Integrated Waste Management Programme (2008). Key responsibilities included co-ordination of an Open day event, preparation of presentations, invitations, minute taking and technical aspects of the events and compiling a Public Participation report (2007).

WATER USE LICENCES

1. Undertook Water Use Licence for Section 1 (Klipspruit Valley Road) of the Rea Vaya Bus Rapid Transit System and road upgrade (under Nema Consulting) for the Johannesburg Development Agency (2008-2009).
2. Currently preparing a Water Use Licence for culverts at road crossings for the Suurplaat wind energy facility, Northern Cape Province.

**CURRICULUM VITAE
GABRIELE WOOD**

Profession : Public Participation and Social Consultant
Specialisation : Public Participation Processes Implementation
Years experience : 5 years

KEY RESPONSIBILITIES

Specific responsibilities as a Public Participation and Social Consultant include professional execution of public participation consulting for a variety of projects. This includes managing and coordinating public participation processes for Environmental Impact Assessments (EIA).

SKILLS BASE AND CORE COMPETENCIES

- Qualitative and Quantitative Social Research
- Social Assessment (Stakeholder and Social Analysis)
- Public participation process implementation, monitoring and evaluation
- Facilitation (Focus Groups, Community Meetings, Interest Group Meetings, Public Meetings, Public Open Days, Workshops, Forums, Committees, etc.)
- Stakeholder Management
- Community Needs Assessment
- Relocation Facilitation
- Project Administration
- Minute Taking
- Report Writing

EDUCATION AND PROFESSIONAL STATUS

Degrees:

B. Hons. Anthropology (Cum Laude): University of Johannesburg (2004 – 2005)
B.A. Psychology: University of Johannesburg (2002 – 2004)

Courses:

South African Advertising Research Foundation (SAARF) living Standards Measure (LSM) Training (2010).
Certificate in Focus Group Moderation Skills, Market Research for Africa (2007)
Prestige Diploma in Public Relations: Allenby Campus Boksburg now Damlin College (2001)

EMPLOYMENT

May 2012 – Current:

Savannah Environmental (Pty) Ltd: Public Participation and Social Consultant

March 2007 – April 2012:

NMA Effective Social Strategists (Pty) Ltd: Assistant Project Manager – Public Participation and Social Research

January 2005 – March 2007 (Part-time):

University of Johannesburg: Department of Anthropology and Development Studies: Student Tutor and Research Assistant

PROJECT EXPERIENCE

Current projects include:

- Garob Wind Energy Facility Project - EIA (juwi Renewable Energies)
- Zen Wind Energy Facility – EIA (VentuSA Energy)
- Prieska and Prieska North Solar PV Facilities – EIA (VentuSA Energy)
- Musina Solar PV Energy Facility – EIA (BioTherm Energy)
- Aberdeen Solar PV Energy Facility – EIA (BioTherm Energy)
- Sishen PV 132kV Power Line – Basic Assessment (Aveng/Vexicom)
- Southern Cross and Tutwa Solar PV Energy Facilities – BA (Tiquen Trading and Flint Ridge Trading)
- Lephalele Coal Fired Power Station – EIA and EMP (Exxaro)



642b Corinne st
Garsfontein East
0042

Cell: 082 – 565 4059
Tel: 012 – 993 2165
Fax 086 – 621 0292
E-mail: mome@menco.co.za

Morné de Jager

Personal Data

Identity Number	711221 5062 080
Date of Birth	21 December 1971
Sex	Male
Marital Status	Married, three children
Driver's license	Code 08
Nationality	South African
Home Language	Afrikaans (speak, read and write)
Other Languages	English (speak, read and write)
Higher Educational Qualifications	B.Eng (Chemical Engineering) [Pretoria University]
Previous Employment	Wates Meiring and Barnard Department of Water Affairs and Forestry
Current Employment	M2 Environmental Connections

Short Resumé

Morné started his career in the mining industry as a bursar Learner Official (JCI, Randfontein), working in the mining industry, doing various mining related courses (Rock Mechanics, Surveying, Sampling, Safety and Health (Ventilation, noise, illumination etc), Safety and Health and Metallurgy. He did work in both underground (Coal, Gold and Platinum) as well as opencast (Coal). He changed courses from Mining Engineering to Chemical Engineering after his second year of his studies at the University of Pretoria.

After graduation he worked as a Water Pollution Control Officer at the Department of Water Affairs and Forestry for two years (first year seconded from Wates, Meiring and Barnard), where duties included the perusal (evaluation, commenting and recommendation) of various regulatory required documents (such as EMPR's, Water Licence Applications and EIA's), as well as the compilation of Technical Documents.

Since leaving the Department of Water Affairs, Morné has been in private consulting for the last 10 years, managing various projects for the mining and industrial sector, private developers, business, other environmental consulting firms as well as the Department of Water Affairs. During that period he has been involved in various projects, either as specialist, consultant, trainer or project manager, successfully completing these projects within budget and timeframe.

He has been interested in acoustics as from school days, doing projects mainly related to loudspeaker design. Interest in the matter brought him into the field of Environmental Noise Measurement, Prediction and Control. He has been doing work in this field for the past 5 years, and was involved with the following projects in the last few years:

Project Experience

Sekoko MiningL Lephale Coal Siding	<i>Noise Impact Assessment for the proposed Sekoko Coal Siding</i>
Xstrata Coal South Africa	<i>Noise Impact Assessment for the proposed Verkeerdepan Extension</i>
Upington Solar Thermal Facility – Abengoa Solar South Africa	<i>Noise Impact Assessment for Scoping purposes for the establishment of the Upington Solar Thermal Facility</i>
Samancor Chrome: Eastern Chrome Mines	<i>Noise Impact Assessment for the proposed Jagdlust Mine</i>
WPB Coal	<i>Noise Impact Assessment for the proposed WPB Coal Mine</i>
Sephaku Cement: Dwaalboom	<i>Noise Impact Assessment for the proposed Dwaalboom Limestone Mine</i>
Landau Expansion – AngloCoal	<i>Noise Impact Assessment for the proposed Landau Expansion Project</i>
Renewable Energy Systems	<i>Noise Impact Assessment for the proposed Oyster Bay Wind Energy Facility</i>
Exxaro Resources Limited	<i>Noise Impact Assessment for the proposed Tsitsikamma Wind Energy Facility</i>
Xstrata Coal South Africa: Verkeerdepan Extension	<i>Noise Impact Assessment for the proposed Verkeerdepan Extension mine</i>
Project Ilanga - Ilangaletu Solar Power (Pty) Ltd	<i>Noise Impact Assessment for Scoping for the Project Ilanga Solar Thermal Power Plant near Upington, Northern Cape</i>
Rainmaker Energy Projects – AB Wind Energy Facility	<i>Noise Impact Assessment for the AB Wind Energy Facility near Indwe</i>
Otijkoto Gold – AurexGold	<i>Noise Impact Assessment for the proposed Otijkoto Gold Mine near Otavi</i>
West Coast Wind Energy Facility - Exxaro Resources Limited	<i>Noise Impact Assessment for the West Coast Wind Energy Facility near Namakwa Sands</i>
Rainmaker Energy Projects – Dorper Wind Energy Facility	<i>Noise Impact Assessment for the Dorper Wind Energy Facility near Molteno</i>
Gouda Wind Energy Facility - VentuSA Energy	<i>Noise Impact Assessment for the Gouda Wind Energy Facility near Gouda</i>
Pofadder Solar Thermal Facility – Abengoa Solar South Africa	<i>Noise Impact Assessment for Scoping purposes for the establishment of the Pofadder Solar Thermal Facility</i>
Noise Impact Assessment – Tweefontein Colliery	<i>Noise Impact Modelling for new proposed expansion of coal mine. Including mitigation measures.</i>
Klipfontein Colliery – Hoyoyhoyo Mining	<i>Noise Impact Assessment for EIA for the establishment of the Klipfontein Colliery</i>
Imbabala Colliery – Alpha Coal	<i>Noise Impact Assessment for EIA for the update of the EMPR of Imbabala Colliery</i>
ATCOM East Expansion - X-Strata Coal	<i>Noise impact assessment for the proposed expansion at ATCOM</i>
Amakhala Emoyeni Wind Energy Facility Windlab Developments	<i>Noise Impact Assessment for the Amakhala Wind Energy Facility near Bedford</i>
Klipheuwel / Boontjiekraal Wind Energy Facility - BioTherm Energy	<i>Noise Impact Assessment for the Klipheuwel / Boontjiekraal Energy Facility near Caledon</i>
Department of Water Affairs: North-west – Integrated Monitoring	<i>Catchment Assessment, Gap Analysis, Design and Implementation of Integrated Chemical Water Monitoring Programme</i>
International Project Development Power (Pty) Ltd	<i>Noise Impact Assessment for Scoping: Proposed Saldanna Wind Energy Facility</i>
International Project Development Power (Pty) Ltd	<i>Noise Impact Assessment for Scoping: Proposed Veldrift Wind Energy Facility</i>
Cookhouse WEF - ACED	<i>Noise Impact Assessment for the proposed Wind Energy Facility (200 WTGs) near Cookhouse in the Eastern Cape</i>
Department of Water Affairs: North-west – Compliance and Enforcement	<i>Development of a Monitoring Report Framework, compilation of concept Integrated Water Use Licence</i>
Canyon Springs Investments 71 (Pty) Ltd	<i>Noise Impact Assessment for the proposed Canyon Springs Wind Energy Facility</i>
Rhebokfontein Wind Energy Facility – Moyeng Energy	<i>Noise Impact Assessment for the Rhebokfontein Wind Energy Facility near Darling (Scoping and EIA)</i>
West Coast One Wind Energy Facility – Moyeng Energy	<i>Noise Impact Assessment for the West Coast One Wind Energy Facility near Vredenburg (Scoping and EIA)</i>
Suurplaat Wind Energy Facility – Moyeng Energy	<i>Noise Impact Assessment for the Suurplaat Wind Energy Facility near Sutherland (Scoping and EIA)</i>
ACED – Noise Impact Assessment	<i>Scoping: Noise Impact Assessment for the proposed Wind Energy Facility (100 WTGs) near Middelburg in the Eastern Cape</i>
Uyekraal Wind Energy Facility - Creative-Renewable-Energy-Solutions (Pty) Ltd	<i>Noise impact assessment for scoping for the proposed Uyekraal wind energy facility near the town of Vredenburg, Western Cape</i>
Karoo Renewable Energy Facility - South African Renewable Green Energy (Pty) Ltd	<i>Noise impact assessment for scoping purposes for the proposed Karoo Renewable Energy Facility near Victoria West, Western and Northern Cape Provinces</i>
Kangra Coal – Environmental Management Resources (Pty) Ltd	<i>Noise Impact Assessment for the proposed Kangra Coal Colliery near Piet Retief</i>
Ruukki South Africa – Savannah Environmental (Pty) Ltd	<i>Noise Impact Assessment for Scoping: Proposed Ruukki Coal Fired Power Station near Ogies</i>

CURRICULUM VITAE

CHRIS J VILJOEN

Profession : Soil Scientist
Specialisation : Soil Surveys, Soil Pollution Investigations, Soil Remediation, Geotechnical Assessments
Years experience : Twenty Four (24) years active in Soil Science

KEY RESPONSIBILITIES

- *Baseline soil surveys & wetland delineations for EIA and EMPR*
- *Soil contamination assessments and formulation of cost effective remediation strategies for rehabilitation and closure purposes.*
- *Geotechnical assessments for site selection, e.g. tailings dams, residential developments, etc.*

SKILLS BASE AND CORE COMPETENCIES

- 5 years research soil chemical & physical related projects, laboratory technician routine soils laboratory.
- 3 years specialist fertiliser recommendations to commercial farmers, research on soil chemical & physical related projects, general management of routine and research soils laboratory.
- 2 years management of operational activities during rehabilitation of gold tailings dams, initiation of consulting group focussed on rehabilitation and mine closure.
- 3 years financial management consulting group, conduct soil investigations encompassing surveys, contamination assessments, remediation and rehabilitation with focus on mine closure market.
- 11 years soil surveys, geotechnical assessments, soil contamination assessments & remediation, rehabilitation of gold slimes dams, coal discard dams, industrially polluted areas & effluent evaporation dams, footprint of gold tailings dams, stabilisation of ecologically eroded sites, specialised wetland delineations.
- Completed projects in several Provinces of South Africa, as well as Zimbabwe, Zambia, Denver USA, Australia and Madagascar.

EDUCATION AND PROFESSIONAL STATUS

Degrees:

1996 M.Sc. Soil Science , PU for CHE, Potchefstroom
1992 B.Sc. Honns in Soil Science, PU for CHE, Potchefstroom
1990 B.Sc. in Soil Science and Botany, PU for CHE, Potchefstroom

Courses:

2002: Soil Water Balance Irrigation Management, Inorganic Soil Chemical Modelling, UP.
1997: Principles & Practice of Environmental Management: An Introduction, PU for CHE.
1996: Introduction of rehabilitation of disturbed areas, PU for CHE.
1995: Laboratory Management, Technikon Pretoria.
1994: Strategic Farming Planning, Department Of Agriculture.
1994: Resource Identification and Utilisation, Department Of Agriculture.
1992: Turf grass management, Technikon Pretoria

Professional Society Affiliations:

Soil Science Society Of South Africa.
Grassland Society Of South Africa.
Environmental Earth Science Group.
International Erosion Control Association.
South African Council for Natural Scientific Professions: Pr. Sci. Nat. Reg. No. 4000131/96 (Earth Science)

EMPLOYMENT

2001 to date: Viljoen Associates, Managing Member.
1998 -2001: Envirogreen Consulting (Pty) Ltd, Director.
1996 to 1998: Envirogreen (Pty) Ltd, Operational Project Manager & Consultant.
1993 to 1996: Department Of Agriculture, Soil Scientist & Soils Laboratory Manager.
1988 to 1993: Department Of Soil Science PU for CHE, Research Assistant.

PROJECT EXPERIENCE

AECI South Africa

Kynoch inorganic & organic soil contamination assessment

Aflease (Pty) Ltd Klerksdorp, South Africa

Analyses and interpretation of analytical data

African Chrome (Pty) Ltd South Africa

Pedo-chemical assessment of Cr contaminated soils to determine potential soil remediation strategies

African Innovative Solutions & Projects Zimbabwe

Mbada Diamond Mine Slimes Dam Geotechnical Assessment

African Mining Consultants (Pty) Ltd Zambia

Pedo-chemical assessment of organically and inorganically polluted soils and formulation of sustainable, cost effective remediation strategies for Konkola Copper Mines

Alan Robinson Civil & Geotechnical Consulting Engineers South Africa

Fertiliser specifications for establishment and maintenance: Chris Hani Sport Complex

Pedo-Chemical Assessment of NCP Chlookop Area 1

Amplats South Africa

Western Limb Tailings Soil Survey

Anglocoal South Africa

Greenside station colliery baseline soil survey

Anglogold Ashanti Klerksdorp, South Africa

Tao Lekoa Inorganic Soil Contamination Assessment around Gold Tailings Dam

Anglogold Free State Division South Africa

Specialist inputs to the conceptual closure plan for the Anglogold Free State North No. 6 tailings dam

Anglogold Vaalriver South Africa

Pedo-Geochemical Assessment of contaminated area adjacent ARM No. 2#

Closure: Inorganic Soil Contamination Assessment Area VR1

Closure: Inorganic Soil Contamination Assessment Areas VR1 B, D

Closure: Inorganic soil contamination assessment VR1 Area H

Closure: Inorganic soil contamination assessment VR1 Areas B – H

West complex Mispah soil survey

Soil chemical cost benefit remediation modelling

Mispah soil survey

No. 8 Uranium Plant Inorganic Soil Contamination Assessment

Swanepoel Dam Rock Terrace Soil Assessment

WAFU Plant inorganic soil contamination system

15 x 4m Water monitoring boreholes

Anglogold West Wits Operations South Africa

Interpretation of soil chemical data to assess potential of utilising water from return water dams for establishing vegetation on Deelkraal tailings dams

General interpretation of historical soil chemical data

Soil chemical assessment of farmers property irrigating with inorganically contaminated effluent water

Inorganic soil contaminations assessments of units Soil A-H

Magnum Farm inorganic soil contamination assessment

Northwest inorganic soil contamination assessment

West Wits 2ha topsoil assessment for rehabilitation purposes

Shopping complex 8ha screening soil contamination assessment

Domein 3 390ha topsoil assessment for rehabilitation purposes

New North complex 66ha inorganic soil contamination assessment

Old North complex 15ha inorganic soil contamination assessment

Domein 3 6ha topsoil erosion assessment

Soil chemical cost benefit remediation modelling

Assessment of 6,000m³ available clay for rehabilitation and capping purposes on a waste dumping site

Anglo Platinum South Africa

Quantification of amplitude and impact of inorganic soil contamination in the revert stockpile area.

Quantification of amplitude and impact of inorganic soil contamination assessment of the Waterfall Smelter area

Baseline EMPR soil survey

Western Limb soil survey

Boschfontein soil, land use & land capability assessment

Anglo American Corporation Civil Engineers South Africa

Inspection of a proposed site for construction of an evaporation dam at Kleinkopje Colliery – Witbank

Avgold Loraine Division South Africa

Evaluation of underground water for irrigation purposes on recreational facilities

Barat Carbide South Africa

Inorganic Soil Contamination Assessment East Side Settling Dams

Bosuil Holdings South Africa

Pedo-chemical & vegetation assessment of the farm Bosuil

DeBeers DebTech South Africa

Interpretation of Pedo-Chemical data from Kimberlite Tailings for rehabilitation purposes

DeBeers Namaqualand South Africa

Baseline soil survey for *Aide Memoir*

Pedo-chemical assessment of potential available topsoil to be used during rehabilitation of disturbed mining areas

Pedo-Chemical analysis of soil samples and interpretation of analytical data for rehabilitation purposes

DeBeers Venetia Diamond Mine South Africa

Rugen Farm Soil Survey

Interpretation of analytical data of organic material to be utilised as ameliorant during establishment of vegetation on tailings material

Pedo-Geochemical Assessment of available topsoil: Rugen Farm Soil Survey Phase II

Sampling and analyses of organic contaminated soil samples

Dow Chemicals South Africa

Pedo-Geochemical assessment of northern effluent farm to establish potential cost effective rehabilitation strategies

Pedo-chemical assessment of southern effluent farm to establish potential cost effective rehabilitation strategies

Pedo-chemical assessment of eastern effluent farm to establish potential cost effective rehabilitation strategies

Pedo-Chemical Assessment for NCP Effluent Farm Area 1

Durban Roodepoort Deep (Pty) Ltd South Africa

Inorganic soil analyses & Interpretation of analytical data

East Rand Gold and Uranium Company (Pty) Ltd South Africa

Quantification of the potential inorganic pollution on Mr van Staden's plot

Amplitude, impact and amelioration program of the slime contaminated area Van Der Merwe's farm land

Potential of soil pollution to the surrounding environment due to slime present in the Withok spruit

Evaluation of the chemical status of several grid dumps for potential rehabilitation with sustainable vegetation

Evaluation of the chemical status of a calcine dump for potential rehabilitation with sustainable vegetation

Quantification of the potential inorganic soil pollution on Mr Coetzee's plot

Evaluation of the prevailing inorganic chemical status of the grassed and ungrassed areas in the 6L1, 5L27 and 6L4 footprints

Evaluation of inorganic soil chemical status of the 6L20 footprint

Compilation of a monitoring protocol for the 6L20 footprint

Evaluation of the inorganic soil chemical status of the 4L45 and 5L24 footprints

Evaluation of the inorganic soil chemical status of the 6L12 footprint

Evaluation of the inorganic soil chemical status of the 6L11 and 5L27 footprints

Evaluation of the inorganic chemical status of the 5A10 sand dump

Scope and impact of potential inorganic soil pollution: 5L2 footprint

Conceptual research protocol for experimental trails at the Rietkuil 551 area (Mr. L. Muller's farmland)

Daggafontein Tailings Dam – Proposed stripping of topsoil from the surrounding land for use as a vegetation growth medium on the tailings dam walls

Pedo-Geochemical Assessment – 5L31 footprint

Daggafontein Tailings Dam – Proposed stripping of topsoil from the surrounding land for use as a vegetation growth medium on the tailings dam walls

Assessment of utilising grit samples as potential growth matrix when utilised as land fill and landscaping matrix

Pedo-Geochemical Analyses of footprint 7L15

Interpretation of Analytical Data of Organic Material to be utilised as Ameliorant During Rehabilitation of Gold Tailings Footprints

Pedo-Geochemical Assessment of 7L1 and 7L9 footprints

Pedo-Geochemical Assessment of the soils of the 7L1 and 4L24 footprints and grit samples from the 6L20 and 7L9 footprints

Pedo-Geochemical Assessment of the 6L8 and 6L9 gold tailing footprints

Pedo-geochemical assessment 6L9 after scrubber

Specialist contributions to the conceptual closure plan for the Daggafontein Tailings Dam

Pedo-Geochemical assessment of the soils on the 7L2, 8, 9, 10 and 11 gold tailings footprints

Pedo-Geochemical assessment of East Pay dam slimes spill

Assessment of quality of agricultural lime utilised during remediation of acid mine drainage on soils of gold tailings footprints

Pedo-Chemical Assessment of available topsoil and grit material for rehabilitation purposes on the Withok gold tailings dam

Closure Report for Daggafontein Tailings Dam: Input on Rehabilitation of top surface and side slopes schedule of quantities

Pedo-Chemical Assessment of southern slope of Withok Tailings Dam

Pedo-Chemical Assessment 4L24, 6L19 and 4L45

Pedo-Chemical Assessment of 5L31, 4L10, 6L11, 5L27, 5L9/12, 4L3/4, and Withok Footprints

Inorganic soil contamination assessment of 5A9 footprint

Inorganic soil contamination assessment of 5L30 gold tailings footprint

5L31 Phase 2 Pedo-chemical Assessment

4L8 Sand Dump Pedo-chemical Assessment

5L20 5A7 Sand Dump Pedo-chemical Assessment

4L45 Pedo-chemical Assessment

7L15 Footprint & Tailings Dam Pedo-Chemical Assessment

5L32 Pedo-chemical Assessment

5L2 Waste Material Assessment

4L8 Sand Dump Pedo-chemical Assessment Phase II

5L20 5A7 Sand Dump Pedo-chemical Assessment Phase II

4L45 Pedo-chemical Assessment Phase II

7L15 Footprint & Tailings Dam Pedo-Chemical Assessment Phase II

5L2 Grit Material Assessment

Withok Inorganic Topsoil Quality Assessment

5L31 Footprints Inorganic Soil Contamination Assessment

5L2 Grit Material & Footprint Assessment

5L31 Footprint Pedo-chemical assessment
5L2 Footprint Pedo-chemical assessment, grit material chemical assessment
Withok topsoil assessment
6L12, 6L2 Footprint Assessment
6L12 soil contamination assessment
5L28 inorganic soil contamination assessment
Daggafontein topsoil assessment for rehabilitation purposes
6L1 117ha inorganic soil contamination assessment
4L29, 4L8, 5L14, 5L25, 5L3+4 inorganic soil contamination assessments
5L24 inorganic soil contamination assessment
4L42 inorganic soil contamination assessment
Daggafontein Tailingsdam soil monitoring of rehabilitated side slopes
6L3, 5L26, 4L42, 4L8, 4L7 Inorganic Soil Contamination Assessment
4L44 Inorganic Soil Contamination Assessment
6L20 Inorganic Soil Chemical Modelling
Soil cover amelioration & source ID Brakpan Tailingsdam
Inorganic Soil Assessment No. 8 Uranium Plant
7L14 Footprint Assessment
7L9 Grit Dump Assessment
Sulphuric Storage Tanks Inorganic Soil Contamination Assessment
4L7 (21ha) & 4L27 (30ha) Inorganic Soil Contamination Assessment
7L14 Grit Dump Assessment
5L1 Inorganic Soil Contamination Assessment
Daggafontein 90ha soil survey
4L8 Inorganic Soil Contamination Assessment
5L24 Inorganic Soil Contamination Assessment
5L26 Inorganic Soil Contamination Assessment
5L32 Inorganic Soil Contamination Assessment
4L8 Inorganic Soil Contamination Assessment
Ergo Daggafontein Topsoil Rock Armour Salinisation Modelling

Eccosun South Africa
Eskom Kendal Baseline Wetland Soil Survey
Grassmere Baseline Wetland Soil Survey
Gautrain Wetland Delineation Soil Survey
Matla Coal No. 3 Mine Wetland Delineation Soil Survey
Impala Soil Survey

Ecopartners South Africa
Interpretation of Metago Soil Analytical Data
Goldfields Tailings Storage Facility Scoping Phase Soil Survey
Goldfields Open day Simulation & Event
Goldfields Tailings Storage Facility EIA Land Use Land Capability Assessment

Ellispark South Africa
Fertiliser recommendation for rugby field

Envirogreen (Pty) Ltd South Africa
Interpretation of historical soil chemical data

Envirogreen Consulting (Pty) Ltd South Africa
Soil chemical sampling of gold tailings dumps AngloGold Freestate for closure monitoring

Etek Consulting South Africa

Tau Lekoa Soil Assessment

Pyramid Sand Mine Soil Assessment

Exxaro South Africa

Matla Coal Nr. 3 Mine Wetland Delineation Soil Survey

Exxaro Toliara, Madagascar

Baseline Soil Survey

Soil sampling and analyses for rehabilitation planning

Fick Hollenbach & Associates South Africa

Erf Grimbeekpark Potchefstroom Geotechnical Assessment

Fraser Alexander (Pty) Ltd South Africa

Evaluation of the soil chemical status of soil samples East & South

Inorganic soil analyses & interpretation of analytical data

Project A1 Soil Analyses Interpretation of analytical data

Project A2 Soil Analyses Interpretation of analytical data

Project A3 Soil Analyses Interpretation of analytical data

Project A10 Soil Analyses Interpretation of analytical data

Project A11 Soil Analyses Interpretation of analytical data

GeoPrecision Services South Africa

Rhenosterspruit Inorganic Soil Contamination Assessment

Golder Associates Africa (Pty) Ltd South Africa

Luipaardsvlei Soil Volume Assessment

Mothlulung vegetation rehabilitation

Pappas Quarry Vegetation Specifications

WRC Waste Cover Transport of Hutton Soil

Murrin Murrin 2004 Soil Sample Data Interpretation

Swanepoel Dam Rock Terrace Inorganic Soil Contamination Assessment

Delphi Soil Sampling

Matla Coal River Diversion Soil Survey Land Capability Assessment

Anglo Coal Mafube Soil Survey

Impala Platinum Baseline Soil Survey

Heidelberg Soil Survey

Belfast Wetland Soil Survey

SRK Mintails Reveiw

Goldfields Gold Mine South Africa

Tailings Dam Site Selection Soil Assessment

Hartebeestfontein Gold Mine Klerksdorp, South Africa

Post-rehabilitation biological monitoring

Heydenrych & Van Der Nest (Pty) Ltd South Africa

Monitoring of pH levels on Goldfield's grassing projects

Progress report: Research on gold tailings amelioration for vegetation establishment by the soil scientific approach of Heydenrych & Van Der Nest (Pty) Ltd in combination with German technology

IPROP South Africa

Pedo-Geochemical assessment of West Maifair gold tailings footprint

Iron Duke Gold Mine Zimbabwe

Development of a rehabilitation plan for an iron sulphide waste rock dump at the Anglo American owned Iron Duke Gold Mine

Iscor Ellisras South Africa Pedo-Chemical Assessment of available topsoil and soil remediation specifications for rehabilitation of coal discard dumps

Iscor Kumba Resources South Africa

Sishen Soil Survey 2001

Sishen baseline Soil Survey phase II

Sishen South Mine Soil Survey

Sishen 450ha Baseline Soil Survey

Iscor Vanderbijlpark South Africa

Scope and impact of potential inorganic pollution: Linkholm and Steelvalley areas, adjacent to Iscor Vanderbijlpark

Scope and impact of potential inorganic soil pollution: Cyferpan and Rietkuil areas, adjacent to Iscor Vanderbijlpark

Scope and impact of potential inorganic soil pollution: Louisrus

Scope and Impact of potential inorganic soil pollution: Rietkuil 551 & 552

Scope and impact of potential inorganic soil pollution: Cyferpan 104

Quantification of potential inorganic pollution: Rietkuil 554

Leachate Management Infrastructure Phase IV: Inorganic Soil Quality Investigation

Pedo-Geochemical Assessment of Rietkuil 583

Credentials of Laboratory, Analytical References and Consolidated Mapping of Inorganic Pollution at Iscor Vanderbijlpark

Evaluation of report: 1996 Pedo-Geochemical assessment of veld area and S-Works Industrial area at Iscor Vanderbijlpark

Louisrus North Pedo-Geochemical Assessment

Leachate Management Infrastructure Phase IV Pedo-Geochemical Assessment

2005 Inorganic Soil Monitoring 2,500ha

Jack Rautenbach Close Corporation South Africa

Assessment of amplitude and impact of inorganic soil contaminated caused by spilled gold tailings material

Johan Badenhorst Consulting Engineers South Africa

Assessment of the irrigation potential of the soils on the Rietkuil Farms adjacent Iscor Vanderbijlpark

Kantey & Templer Consulting Engineer South Africa

Engen inorganic soil contamination assessment

Zn soil baseline assessment

Krugersdorp Town Council South Africa

Luipaardsvlei waste dump inorganic soil contamination assessment

Krugersdorp Town Council South Africa

Thabazimbi Iron Ore Mine 10,807ha soil survey

Leeudoorn Gold Mine (Pty) Ltd South Africa

Evaluation of the water quality of the slimes dam return water dam and potential impact on soil contamination

Leshika Consulting Engineers South Africa

Daggafontein Feasibility Study: Soils

Loxton, Venn & Associates South Africa

Baseline soil survey for Anglo Pietersburg Platinum Smelter

Kingston Vale soil baseline assessment

Diepsloot irrigation potential of inorganically contaminated soils

Loxton & Wates South Africa

Compilation of soil monitoring guidelines for Kingston Vale

Luipaards Vlei Estates Limited South Africa

Specialist inputs to the rehabilitation plan for the Luipaards Vlei tailings dam complex

Manganese Metal Company South Africa

Compilation of a proposed terms of reference for a soil & foliage background study

General soil chemical literature review of Mn in soils

Kingston Vale topsoil & subsoil quality assessment

Kingstonvale soil quality & quantity assessment

Kingstonvale soil vegetation monitoring

Mittal South Africa

Organic inorganic soil contamination assessment (Areas 1 – 4)

Maturation Pond Inorganic Soil Contamination Assessment

Dam 1- 2 Inorganic Soil Contamination Assessment For Remediation and Rehabilitation Surfaces

Dam soil sampling and interpretation of analytical data for remediation purposes

Soil sampling and analyses CETP dam for analytical analyses for remediation purposes

2011 Monitoring Inorganic Soil Conditions 2,500ha Linkholm, Steelvalley, Cyferpan, Rietkuil, Louisrus and Kiewiet Areas

Mhiduvi (Pty) Ltd South Africa

Erf 1541 Bailliepark Potchefstroom 0,5ha Geotechnical Assessment

Morris Environmental Groundwater Alliance South Africa

Kynoch Potchefstroom inorganic and organic soil contamination assessment

MSA Geoservices (Pty) Ltd South Africa

Vanadium and Magnetite Exploration and Development Soil Specialist Study

Premier Environmental Technologies (Pty) Ltd Denver USA

Compilation of research protocol for testing EARTHbound™

Prozcept (PTY) LTD South Africa

Portion 3 Erf RE Erf 1086 0,2ha Potchefstroom Geotechnical Assessment

Pulles, Howard & DeLange South Africa

Literature review on developing a generic guideline for rehabilitation of gold tailings footprint areas

Water Research Commission Technical Report on Generic Guideline for Rehabilitation of Gold Tailings Dam Footprints

Pyramid Sand Mine Pretoria, South Africa

Assessment of quantity and type of clay fraction to be mined

Redco Potchefstroom, South Africa

Goldfields Tailingsdam Site Selection Soil Survey

Sappi Ngodwana South Africa

Literature review of national and international scientific literature relating to chloride and tobacco, with particular reference to cultivars grown in the Crocodile Valley

Soil & vegetation baseline study for integrated water management plan

Pedo-geochemical modelling of inorganic contamination

2001 Bi-annual Soil Monitoring

2002 Bi-Annual Soil Monitoring

2003 Bi-Annual Soil Monitoring

Soil Breakthrough Curve Assessment of Irrigation Effluent Farm

2004 Soil Monitoring

2007 Soil Monitoring

2008 Soil Monitoring

2009 Soil Monitoring

Sasol Secunda South Africa

Pedo-chemical baseline assessment for conceptualisation of potential rehabilitation strategies for the evaporation dam area at the Sasol Secunda fertiliser plant

Soil survey & soil water balance on 15,000ha to assess water retention coefficient of soils and contribution to underground water in mine works

Scenrio South Africa

North West Province State of The Environment Report

2006 Lecture on Soil Chemical Principles for Rehabilitation

2007 Lecture on Soil Chemical Principles for Rehabilitation

2008 Lecture on Soil Chemical Principles for Rehabilitation

2009 Lecture on Soil Chemical Principles for Rehabilitation

2010 Lecture on Soil Chemical Principles for Rehabilitation

2011 Lecture on Soil Chemical Principles for Rehabilitation

Serurubele Consulting South Africa

Holding 10 President Park Midrand Soil Survey

Stilfontein Golf Course South Africa

Fertilisation recommendation on greens and fairways

Stratalab South Africa

Ganesa Vryburg 0,2ha Geotechnical Assessment

Sydney Loate Building Contractors South Africa

Establishment and maintenance fertilisation guidelines for Chris Hani Sport complex

Synergistics Environmental Services South Africa

Sishen South 450ha Baseline Soil Survey

Tavistock Collieries Limited, JCI South Africa

Interpretation of data from soil analyses

Ticor South Africa

Rehabilitation workshop 1

Rehabilitation workshop 2

Fairbreeze Soils Land Use Land Capability Assessment

Hillendale Research Protocol

Hillendale Soil Analyses Interpretation of Analytical Data

Hillendale Soil Analyses Interpretation of Analytical Data

Hillendale Soil Analyses Interpretation of Analytical Data

Monthly Rehabilitation Workshop

Ticor Soil Analyses February 2005

Time Mining (Pty) Ltd South Africa

Specialist inputs to Kilembe mine conceptual rehabilitation plan

Townscape Planning Solutions Fochville, South Africa

Fochville Portion 13 Reconnaissance Geotechnical Assessment

Portion 35 of Farm Witkop Potchefstroom 30ha Geotechnical Assessment

Ben Fleur Extension 2 Witbank 70ha Geotechnical Assessment Phase 1

Modelpark Witbank 234ha Geotechnical Assessment Phase 1

Portion 35 of Farm Witkop Potchefstroom 30ha Geotechnical Assessment

Fochville Portion 13 Reconnaissance Geotechnical Assessment

Dixon Agricultural Holdings Portion 2 1,6ha Geotechnical Assessment

Portion 55 Farm Naauwpoort Witbank Geotechnical Assessment

Portions 16 and 49 of Farm Grootpan Nr. 7 Ogies 1,7ha Geotechnical Assessment

Grootedrif 24ha Agricultural Potential Assessment

Portion 61 Portion of Portion 3 Farm Zeekoeiwater No. 311 2,3ha Geotechnical Assessment

Portion 55 Vyfhoek 9ha Geotechnical Assessment

Extension 47 Bailliepark Wetland Delineation

Vantech Steelpoort, South Africa

Development of a rehabilitation plan for combined mining and industrial waste sites.

Wates, Meiring & Barnard South Africa

Soil chemical Interpretation of analytical data for Finch Mine Golf Course

Soil acidity tests for Dainfern filling station

Daggafontein baseline soil survey

Progress meeting on AngloGold Daggafontein Tailings Closure Strategy

Characterisation of mine residue deposits for code of practice document for Kloof Goldfields

Characterisation of mine residue deposits for code of practice document for Driefontein Goldfields

Management report on stockpiling of available topsoil for Anglo Platinum Pietersburg

Construction of leaching columns for research purposes

Baseline wetland soils assessment soil data interpretation

N17 Baseline soil survey

LWALA Steelpoort soil survey & agricultural potential assessment

Majube EIA Baseline Soil Survey

DRD EIA Baseline Soil Survey

Soil sampling Kleinkopje Colliery

Beeshoek Interpretation of Soil Analytical Data

Maccauvlei EMPR Soil Survey

Khutala Soil Survey

DRD Tailings Dam Nr. 8 Extention Soil Survey

Beath Dump Soil Quality & Quantity Assessment

Venetia Baseline Soil Survey

TDB Site Reconnaissance & Preliminary Soil Survey

Macwest Soil Survey Phase II

Masonite Organic Inorganic Soil Contamination Assessment

Doornkop (Appeldraai & Vlieger) Soil Survey

Mphele soil survey

Murren Analytical Data Interpretation

Welwyn South Africa

Portion 563 Vyfhoek 428IQ Geotechnical Assessment

Portion 41 Vyfhoek 428IQ Geotechnical Assessment

Portion 1129 Vyfhoek 428IQ Geotechnical Assessment

Portion 556 Vyfhoek 428IQ Geotechnical Assessment

Portion 1130 Vyfhoek 428IQ Geotechnical Assessment

Plot 37 Mooivallei 428IQ Geotechnical Assessment

Portion 363 Vyfhoek 428IQ Geotechnical Assessment

Portion 50 Vyfhoek 428IQ Geotechnical Assessment

Portion 546 Vyfhoek 428IQ Geotechnical Assessment

Portion 30 Vyfhoek 428IQ Geotechnical Assessment

Portion 560 Vyfhoek 428IQ Geotechnical Assessment

Ventersdorp Trimpark Geotechnical Assessment

Portion 46 Vyfhoek 428IQ Geotechnical Assessment

Portions 23, 1029 Vyfhoek 428IQ Geotechnical Assessment

Kromdraai Kiepersol Geotechnical Assessment

Portion 65 and 66 Mantevrede Farm Geotechnical Assessment

Portions 883 Vyfhoek 428IQ Geotechnical Assessment

Portion 47 Vyfhoek 428IQ Geotechnical Assessment

Portion 16 of Farm Grasfontein 199IS 10ha Geotechnical Assessment

Portion 997 Vyfhoek 428IQ Geotechnical Assessment

Portion 2 of portion 39 of Farm Elandspruit 291JS Geotechnical Assessment

Portion 122 of Farm Kromdraai 292JS Geotechnical Assessment

Erf 438 Doringkruin Klerksdorp Geotechnical Assessment

Portion 35 of Farm Witkop Potchefstroom 30ha Geotechnical Assessment

MARK ZUNCKEL



Firm : uMoya-NILU (Pty) Ltd
Profession : Air quality consultant
Specialization : Air quality assessment, air quality management planning,
air dispersion modelling, boundary layer meteorology,
project management
Position in Firm : Managing director and senior consultant
Years with Firm : New firm started on 1 August 2007
Nationality : South African
Year of Birth : 1959
Language Proficiency : English and Afrikaans

EDUCATION AND PROFESSIONAL STATUS

Qualification	Institution	Year
National Diploma (Meteorology)	Technikon Pretoria	1980
BSc (Meteorology)	Univ. of Pretoria	1984
BSc Hons (Meteorology)	Univ. of Pretoria	1988
MSc	Univ. of Natal	1992
PhD	Univ. Witwatersrand	1999

Council Member: National Association for Clean Air
Member: African Meteorological Society
Member: Air and Waste Management Association

EMPLOYMENT AND EXPERIENCE RECORD

Period	Organisation details and responsibilities/roles
1976 – May 1992	<i>South African Weather Bureau</i> : Observer, junior forecaster, senior forecast, researcher, assistant director
June 1992 – July 2007	CSIR: Consultant and researcher, Research group Leader: Atmospheric Impacts
Aug 2007 to present	uMoya-Niluu Consulting: Senior air quality management consultant, managing director

Key and Recent Project Experience:

2006-2007	Project team leader of a multi-national team to develop the National Framework for Air Quality Management for the Department of Environment Affairs and Tourism
2007	Air quality assessment for Mutla Early Production System in Uganda for ERM Southern Africa on behalf of Tullow Oil.
2008	Lead consultant on the Air quality status quo assessment and scoping for the EIA for the Sonangol Refinery
2008-09	Lead consultant on the development of the air quality management plan for the Western Cape Provincial. Department of Environmental Affairs and Development Planning.
2008-11	Lead consultant on the development of the Highveld Priority Area air quality management plan for the Department of Environmental Affairs and Tourism.
2008 & 2010	Lead consultant on the Air Quality Specialist Study for the EIA for the proposed Kalagadi Manganese Smelter at Coega
2008	Lead consultant on the Air Quality Assessment for the Proposed Construction and Operation of a Second Cement Mill at NPC-Cimpor, Simuma near Port Shepstone.

2008	Lead consultant on the Air Quality Specialist Study Report for the New Multi-Purpose Pipeline Project (NMPP) for Transnet Pipelines.
2008	Lead consultant on the Air quality assessment for the proposed UTE Power Plant and RMDZ coal mine at Moatize, Mozambique for Vale.
2009	Lead consultant on the Air quality assessment for the development of the ETA STAR coal mine at Moatize, Mozambique for Impacto.
2008-09	Lead consultant on the Dust source apportionment study for the Coedmore region in Durban for NPC-Cimpor.
2009	Consultant on the Air quality specialist study for the upgrade of the Kwadukuza Landfill, KwaZulu-Natal
2009-10	Lead consultant on the Audit of ambient air quality monitoring programme and air quality training for air quality personnel at PetroSA
2010	Lead consultant on the Air quality specialist study for the EIA for the Kalagadi Manganese Smelter at Coega
2010	Lead consultant on the Qualitative air quality assessment for the EIA for the Sechaba Asphalt plant, Ferrobank
2009-10	Lead consultant on the Air quality specialist study for the Environmental Management Framework for the Port of Richards Bay
2010	Lead consultant on the Air quality status quo assessment and abatement planning at Idwala Carbonates, Port Shepstone
2010	Lead consultant on the Air quality status quo assessment and abatement planning at Sappi Tugela, Mandeni
2010	Air quality status quo assessment and revision of the Air Quality Management Plan for City of Johannesburg
2010	Lead consultant on the Air quality status quo assessment and abatement planning at First Quantum Mining's Bwana Mkubwa and Kansanshi mines, Zambia
2010 - 2011	Lead consultant on the Air quality specialist study for the EIA for the Alternative Fuel and Resources Project at Simuma, Port Shepstone
2010 - 2011	Lead consultant on the Air quality specialist study for the EIA for the Coke Oven re-commissioning at ArcelorMittal Newcastle
2010	Qualitative air quality assessment for the EIA for the Mozpel sugar to ethanol project , Mozambique
2011	Air quality assessment for the Jindal Open Cast Coal mine in Tete Province, Mozambique
2011	Air quality assessment for the Copeland Reactors at 3 paper mills as input to appropriate minimum emission standards
2011	Air quality assessment for the baseline and energy efficiently project at Sappi Tugela
2011	Air quality assessment for the proposed briquetting plant at Mafube Colliery in Mpumalanga
2011	Dust management planned manganese terminal development at Saldanha Bay
2011	Initial work on the development of the National Emission Inventory as part of the South African Air Quality Information System.
2011	Air quality assessment for the Arnot Power Station biomass substitution project

PUBLICATIONS

Author and co-author of 34 articles in scientific journals, chapters in books and conference proceedings. Author and co-author of more than 80 technical reports and presented 47 papers at local and international conferences. A full publications list is available on request.

BHEKI SHONGWE



Firm : uMoya-NILU (Pty) Ltd
Profession : Chemist
Specialization : Air quality instrumentation, monitoring networks, data management, auditing, traffic and source emission inventory and industrial licensing
Position in Firm : Director
Years with Firm : 5 years
Nationality : South African
Year of Birth : 1977
Language Proficiency : Zulu, English, Xhosa and Afrikaans

EDUCATION AND PROFESSIONAL STATUS

Master Degree: Business Administration (MBA)
Bachelor of Technology: Chemistry (Degree)
National Diploma Analytical Chemistry
Certificate of Accomplishment: Norwegian Institute of Air Research
National Senior Certificate (Matric)

Member: National Association for Clean Air

EMPLOYMENT AND EXPERIENCE RECORD

EThekweni Municipality: Health Department 2004 – 2007

Senior Chemist

Responsibilities include:

Managing the monitoring networks and the quality system (ISO 17025) in the eThekweni municipality area in order to

- Provide data for Air quality management of the eThekweni municipality area.
- Evaluate air quality trends and compliance with health guidelines.
- Validate and improve the eThekweni municipality source emission inventory
- Assess air quality related to specific air pollution complaints
- Prepare and present technical report and papers on monitored ambient air quality
- Provide information to the public, authorities and institution

Supervise and directs subordinates in order to:

- Encourage individuals and teams to develop to their full potential.
 - Develop a culture of providing excellent support and service to the eThekweni Municipality in matters related to pollution control
 - Provide technical support to the team
 - Auditing the quality of work done by subordinate and consultants
-

-
- Deputise manager pollution control

Updates the eThekwini municipality source emission inventory in order to

- Maintain a comprehensive, accurate and current source emission inventory for the eThekwini municipality area.

Performs an administrative and financial control function related to the management of an air quality monitoring network, source emission inventory and air quality modelling in order to

- Provide an effective and cost effective operation
- Ensure equipment and consumables are provided for the effective operation, maintenance and servicing of the air quality management system.

EThekwini Municipality: Health Department 2003 - 2004

Air Quality Technician

Responsibilities include:

- Planning & controlling the sampling of air using passive cartridge
- Management of the Bubble monitoring network
- Provide data for air quality management of the Durban metro area
- Evaluate air quality trends and compliance with health guidelines
- Assess air quality related specific air pollution complains
- Quality control of data, data analysis and interpretation
- Report writing and presentation to relevant stakeholders
- Provide technical support to the Senior Chemist
- Deputise Senior chemist

EThekwini Municipality: Water & Sanitation 2000 - 2003

Chemical Technician

Responsibilities include:

- Preparing the reagents and standards
- Calibration of instruments which include GC, GC-MS, ICP, FIA, IC & UV
- Perform samples analysis using the above instruments
- Data analysis and interpretation of results
- Troubleshooting
- Report writing and presentation to lab manager

EThekwini Municipality: Water & Sanitation 1999 – 2000

Chemical Technician Trainee

Started my career as chemical technician trainee at water and sanitation, as a trainee I was exposed to most analytical instruments. I was also exposed to data analysis and interpretation.

NOMANGALISO MKHIZE



Firm : uMoya-NILU (Pty) Ltd
Profession : Chemical Engineer
Specialization : Air quality monitoring, emission inventory development
Position in Firm : Environmental Consultant
Years with Firm : Started on 08 February 2010
Nationality : South African
Year of Birth : 1986
Language Proficiency : IsiZulu and English

EDUCATION AND PROFESSIONAL STATUS

National Diploma : Chemical Engineering - 2007

EMPLOYMENT AND EXPERIENCE RECORD

1. uMoya-NILU Consulting 2010 - Present

Intern: Air Quality Consultant

Responsibilities include:

Assisting the Technical and Quality Assurance Directors on projects related to emissions inventories and air quality monitoring.

- Projects include:
 - Development of emission inventory for Engen Refinery, South Durban
 - Air quality management system for Total SA.
 - Operation and management of the North West Province's ambient air quality monitoring network.
 - Baseline assessment for SAPPI Mandeni.
 - Fence line monitoring at Sapref, South Durban
 - Fence line monitoring at Engen Refinery, South Durban
 - Air quality study for Sappi Mandeni

2. EThekweni Municipality: Health Department

Date: 12 May 2008 – 31 December 2008

Duties: Assisted the meteorologist with quality control of the ambient air data from the different monitoring stations based on the South Durban Basin.
Auditing of existing quality control check procedure and created Technical Quality Control procedure.

Assisting Environmental Health Department with reviewing of Assmang Ferromanganese plant processes as well as the company's Environmental Impact Assessment on ambient air quality impact.

3. Engen Refinery: Environmental Services Department

Date: 02 February 2009 – 30 June 2009 (on contract basis)

Duties: Assisted the Engen refinery; Environmental Department with confirming of the Sulphur Dioxide (SO₂) emissions emitted from the Fluidised Catalyst Cracking Unit (FCCU) stack as well as to deduce the emission reduction achieved from using a SO₂ reducing additive. This was crucial because currently the refinery estimates its SO₂ emissions from the FCCU by a calculation. Determining the actual SO₂ emitted from the FCCU stack was beneficial for Engen since the calculation confirmed the effect of the SO₂ reducing agent used by the refinery.

Date: 01 July 2009 – 31 December 2009 (on contract basis)

Duties: Perform the monthly Technical Quality Control and Logical Quality Control checks for the air quality monthly data.

Prepare minutes, chair meetings and report the outcomes for the monthly data availability and the status of air quality monitoring network in the Pollution Control Risk Management Section.

Updating of traffic emission inventories for the eThekweni Municipality Air Pollution Control Risk Management Section in Air Quality Information System (AirQUIS) by using EMME2 data and importing measurement data into AirQUIS.

ATHAM RAGHUNANDAN

Firm : uMoya-NILU Consulting (Pty) Ltd
Profession : Air quality consultant
Specialization : Atmospheric Modelling
Year appointed : 2008
Nationality : South African
Year of Birth : 1977
Language Proficiency : English (mother tongue), Afrikaans (fair)

KEY QUALIFICATIONS

Atmospheric Modelling

EDUCATION AND PROFESSIONAL STATUS

Qualification	Institution	Year
M.A. (Atmospheric Sciences)	University of Natal, Durban	2003
B.A. Hons. (Environmental Sciences)	University of Durban–Westville	2001
B.Paed. (Education)	University of Durban–Westville	2000

Memberships:

- National Association for Clean Air (NACA)
 - South African Society for Atmospheric Sciences (SASAS)
 - South African Council of Educators (SACE)
-

EMPLOYMENT AND EXPERIENCE RECORD

Period	Organisation details and responsibilities/roles
2003 – Oct 2008	CSIR
Nov 2008	uMoya-NILU

Recent Project Experience:**Year Description, client, role**

2003	Air Quality Specialist Study for Natal Portland Cement – Modelling aspect, integrative writing.
2003	Air Quality Specialist Study for the Tata Steel Ferrochrome Smelter, Richards Bay, KwaZulu Natal – Research, integrative writing.
2004	Uruguay Ambient Air Quality Network Project – Modelling aspect, integrative writing.
2004	Air Quality Specialist Study for the Proposed Kudu Combined Cycle Gas Turbine Power Station at Oranjemund, Namibia - Modelling aspect, integrative writing.
2004	Air Quality Screening Study for MOZAL 3 – Modelling aspect, integrative writing.
2004	Air Quality Specialist Study for a Proposed Cement Milling, Storage and Packaging Facility and a Second Clinker Kiln at Natal Portland Cement (Pty) Ltd – Simuma plant, Port Shepstone – Modelling aspect, integrative writing.
2005	Technology Review: Air Quality Specialist Study for the Proposed Coega Aluminium Smelter at Coega, Port Elizabeth – Isopleth plotting.
2005	Assessment of Development Scenarios for Hillside Aluminium using Sulphur Dioxide (SO ₂) as an Ambient Air Quality Indicator – Modelling aspect, integrative writing.
2005	Air Quality Specialist Study for the Proposed Kudu Combined Cycle Gas Turbine Power Station at Uubvlei, Namibia - Modelling aspect, integrative writing.
2005	Air Quality Audit for the Amathole District Municipality – Site visit, assistance with the compilation of emission source inventory

-
- 2005 Air Quality Scoping Study for Eskom's Proposed Open Cycle Gas Turbine Power Station at Atlantis, Western Cape – Site visit, integrative writing.
-
- 2005 Air Quality Specialist Study for Eskom's Proposed Open Cycle Gas Turbine Power Station at Atlantis, Western Cape – Modelling aspect, integrative writing.
-
- 2005 Air Quality Specialist Study for the Proposed Tata Steel Ferrochrome Project at Richards Bay – Alton North Site – Modelling aspect, integrative writing
-
- 2006 Development of an Air Quality Management Strategy for Particulate Matter at the Bulk Terminal Saldanha – Site visit, reporting on dust monitoring results, integrative writing
-
- 2007 Air Quality Impact Assessment for the Proposed Coega Integrated Lng – Power Project (CIP) – Site visit, modelling aspect, integrative writing
-
- 2007 Mercury in South Africa: Revealing the Invisible and Establishing the Threat. – Modelling aspect, integrative writing
-
- 2008 Air Quality Specialist Study for the Proposed N2 Wild Coast Toll Highway – Modelling aspect, integrative writing
-
- 2008 Consultant on the Air quality assessment for the proposed UTE Power Plant and RMDZ coal mine at Moatize, Mozambique for Vale.
-
- 2009 Consultant on the Air quality assessment for the development of the ETA STAR coal mine at Moatize, Mozambique for Impacto.
-
- 2009 Consultant on the Air quality specialist study for the upgrade of the Kwadukuza Landfill, KwaZulu-Natal
-
- 2010 Consultant on the Qualitative assessment of impact of dust on solar power station at Saldanha Bay
-
- 2010 Consultant on the Air quality specialist study for the EIA for the Kalagadi Manganese Smelter at Coega
-
- 2010 Consultant on the Air quality status quo assessment and abatement planning at Idwala Carbonates, Port Shepstone
-
- 2010 Consultant on the Air quality status quo assessment and abatement planning at Sappi Tugela, Mandeni
-
- 2010 Consultant on the Air quality status quo assessment and abatement planning at First Quantum Mining's Bwana Mkubwa and Kansanshi mines, Zambia
-
- 2010 Consultant on the Air quality specialist study for the EIA for the Alternative Fuel and Resources Project at Simuma, Port Shepstone
-
- 2010 Consultant on the Air quality specialist study for the EIA for the Coke Oven re-commissioning at ArcelorMittal Newcastle
-

PUBLICATIONS

Author and co-author of 4 articles in scientific journals and conference proceedings. Author and co-author of 13 technical reports for external contract clients. Presented 4 papers at local conferences. A full list of publications, conference papers and contract reports is available on request.

MR WILLIAM MULLINS

PERSONAL DETAILS:

Date of Birth: 26 April 1949
Nationality: South African
Current Position: Economist - Agriculture Specialist

ACADEMIC QUALIFICATIONS:

1968: UED – University of Free State.
1967 BSc – University of Free State.

OTHER TRAINING:

Excell, MS Word and Powerpoint.

LANGUAGE SKILLS:

<i>Language</i>	<i>Reading</i>	<i>Speaking</i>	<i>Writing</i>
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent

PROFESSIONAL CAREER:

William Mullins is originally trained as a mathematician and statistician and after a short spell in industry, became a teacher. In 1976, William took over the family farm in Southern KwaZulu Natal, where he farmed until joining Conningarth in 2000. During his time in farming William Mullins served a period as chairman of the Natal Agricultural Union and was a member of the Regional Development Committee of Region C (RDAC) and the National Regional Development Advisory Committee (NRDAC). He also served as a board member of the KwaZulu Development Corporation and its successor, the Ithala Development Corporation from 1993 to 2001. William was also a member of the KwaZulu Training Trust (KTT) and a board member of the Natal Parks Board.

In the early years of Conningarth Economists, William worked on projects on a part-time basis and then, in 2000, he joined the organisation as the resident statistician. William's leadership qualities and ability to work with people makes him a natural choice as a project team leader. His extensive experience in the agricultural field means that he is involved in most projects in this field, as well as impact studies on rivers. William has also worked in specialist fields like the SKA Telescope study and impact studies for Eskom. Some of William Mullins most recent projects include:

- Macro and Micro-Economic Impact Analysis and Cost Benefit Analysis of the Overvaal Project [Jacana Environmentals cc., 2012].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project, 2011 [Sekoko Resources (Pty) Ltd.]
- Macro-Economic Impact Assessment: Makhado Colliery Project [Jacana Environmentals cc., 2011].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Proposed Vele Colliery near Musina, Limpopo 2010 [Naledi Development (Pty) Ltd.]

- Macro-Economic Impact Assessment Of The Construction Of A Mine [Southern African Institute for Steel Construction (SAISC) 2010].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project [Lexshell 126 General Trading (Pty) Ltd, 2010].
- Socio-economic and ecological implications of water restrictions in the Letaba catchment [DWAF, 2009].
- Port Economic Decision Making Framework [eThekweni Municipality, 2007-2008].
- Environmental impact assessment for the proposed Gamma-Grass Ridge 765kV Transmission Power Lines (x2). [ESKOM Transmission, 2008].
- Integrated comprehensive study of the water resources of the Maputo River Basin [Plancenter Ltd, 2008].
- CBA Analysis of Further Water Augmentation in the Komati and Extension and Updating of the Current Database of the Komati WMA [KNPSF/BIGEN, 2008].
- Feasibility Study of the Potential for Sustainable Water Resources Development in the Molopo-Nossob Watercourse [Iliso Consulting Pty Ltd, 2008].
- Impact study SKA/Meerkat [Imani Development (South Africa) Pty Ltd, 2008].
- Development of a Draft Water Allocation Plan to guide compulsory licensing in the Mhlatuze Catchment. [Iliso Consulting Pty Ltd, 2008].
- Comprehensive Determination of the Reserve for the Inkomati WMA [Water for Africa, 2007].
- Macroeconomic Assessment of the Expansion of the Mafube Coal Mine, Mpumalanga [Golder Associates Africa (Pty)Ltd, 2007].
- Macroeconomic Impact Assessment of the Construction of a new Coal-Powered Station and the Expansion of Grootgeluk Coal Mine at Lephalale [Limpopo Provincial Government, 2007].
- Coal of Africa Limited - Vele Colliery Project [Naledi Development/Jacana Environmentals, 2008/2009/2010].
- Environmental Impact Assessment and Environmental Management Programme for a Proposed Nuclear Power Station [Imani Development (South Africa) Pty Ltd, 2007].

PROJECT EXPERIENCE OUTSIDE SOUTH AFRICA:

Country	Date from - Date to
Swaziland	1996, 2001, 2006-2007
Mozambique	2004-2006, 2008
Namibia	2002, 2004, 2008
Botswana	2008
South Africa	1996-2009

MELANIE MATTHEE

PERSONAL DETAILS:

Date of Birth: 30 June 1981
Nationality: South African
Current position: Econometrician at Conningarth Economists

ACADEMIC QUALIFICATIONS:

2005-2006: B. Com (Econometrics) Honours; University of Johannesburg (formerly known as the Rand Afrikaans University)
2000-2004: B. Com (Economics); Rand Afrikaans University

LANGUAGE SKILLS:

English	Read	Speak	Write
Afrikaans	Read	Speak	Write

PROFESSIONAL CAREER:

25 August 2008 Present: Econometrician at Conningarth Economists

Duties:

Responsible for various tasks ranging from consulting with clients to developing macro-economic models, cost-benefit analyses and report writing, editing and presenting of workshops for training purposes in certain projects.

Extract on projects worked on at Conningarth Economists:

- Macro and Micro-Economic Impact Analysis and Cost Benefit Analysis of the Overvaal Project [Jacana Environmentals cc., 2012].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project [Sekoko Resources (Pty) Ltd. 2011].
- Macro-Economic Impact Assessment: Makhado Colliery Project [Jacana Environmentals cc., 2011].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Proposed Vele Colliery near Musina, Limpopo [Naledi Development (Pty) Ltd., 2008-2010].
- Macroeconomic Impact Analysis and Cost Benefit Analysis of the Vlakfontein Colliery [Jacana Environmentals cc., 2010].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project [Lexshell 126 General Trading (Pty) Ltd, 2010].
- Coal of Africa Limited - Vele Colliery Project [Naledi Development/Jacana Environmentals, 2008/2009/2010].
- Macroeconomic Impact Assessment Of The Construction Of The Proposed New Vale Coal Mine And Coal-Fired Power Station - Application Of The Social Accounting Matrix For Mozambique [Standard Bank of South Africa Ltd: Vale Mozambique Limitada., 2009/2010].

- Comprehensive Design of the South African Renewable Energy Sectoral Business Case [Department of Minerals & Energy, 2009].
- Macro-economic Assessment of the Envisaged Developments in the Vicinity of Lephalale and their Impact [Lephalale Local Municipality, 2008].
- Micro and Macro Economic Impact Assessment of the Proposed Expansion on the Klerksdorp Airport [Klerksdorp Municipality, 2008].
- Research Study on the Economic Development Profile, Investment and Policy Implications on the Accelerated Growth Scenario in the North West Province [2008].
- CBA Analysis of Further Water Augmentation in the Komati and Extension and Updating of the Current Database of the Komati WMA [2008].

Other experience gained while at Conningarth Economists:

- Training in the field of National Accounting Matrix – more specifically, the application of Social Accounting Matrices for South Africa.

TEFELO MAJORO

PERSONAL DETAILS:

Date of Birth: 3 June 1981
Nationality: Lesotho
Current position: Junior economist at Conningarth Economists

ACADEMIC QUALIFICATIONS:

1999-2003: B. Com (Accounting); National University of Lesotho, Lesotho
2006-2009: MBA (Finance); Wuhan University of Technology, China
Current studies: ACCA (CA)

LANGUAGE SKILLS:

Sesotho	Read	Speak	Write
English	Read	Speak	Write

OTHER TRAINING:

MS Excel, MS Word and MS Power Point.

PROFESSIONAL CAREER:

September 2010 – Present: Junior economist at Conningarth Economists

January 2010 – July 2010: Qinfo Solutions: Business analyst.

April 2004 – July 2006: Educator at Lesotho High School.

Duties:

Responsible for various tasks ranging from consulting with clients to developing macro-economic models, macro-economic analyses, cost-benefit analyses and report writing and editing.

Extract on projects worked on at Conningarth Economists:

- Macro and Micro-Economic Impact Analysis and Cost Benefit Analysis of the Overvaal Project [Jacana Environmentals cc., 2012].
- Macro-Economic Impact Assessment: Makhado Colliery Project [Jacana Environmentals cc., 2011].
- Financial and Economic Cost Benefit Analysis Modelling [South African Sugar Cane Association, 2011].
- Macro-economic Impact Assessment of the R80 billion Transnet Capital Investment Programme [Department of Public Enterprises, 2011].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Mine (Sekoko Resources (Pty) Ltd., 2010).
- Update of Transnet Freight Demand [University of Stellenbosch, 2010]).

DANIEL SMITH HAMMAN

PERSONAL DETAILS:

Date of Birth: 08 August 1938
Nationality: South African
Current position: Research and Data Collection

ACADEMIC QUALIFICATIONS:

Date 1961 B.Mil (US)

LANGUAGE SKILLS:

English	Read	Speak	Write
Afrikaans	Read	Speak	Write
French	Read	Speak	

OTHER SKILLS:

MS Excel, MS Word and MS Power Point.

PROFESSIONAL CAREER:

1999-present: Conningarth Economists – Information research, data collection and assisting in various tasks surrounding report writing etc.

1997-2009: Merhast (Pty) Ltd. Co-Director - Facilitating the utilisation of the vast pool of knowledge and expertise available in the large number of prematurely retired Defence Force members.

1993-1998: Inter-State Defence and Security Committee (ISDSC) as Reserve Officer - Coordinator of the Inter-State Defence and Security Committee (ISDSC) of the Southern African Development Community (SADC) and was responsible for the inter-state co-operation programme, committee agendas, monitoring the execution of ministerial committee decisions and the arrangement of the various levels of committee meetings (secretariat, accommodation, logistics, transport, meeting venue, etc.) on ministerial and defence chiefs level.

1958-1993: South African Defence Force – Served in several posts, retired in 1993 as Deputy Chief of the Army.

Some of the projects with which Daan Hamman was involved:

- Proposed construction of the Invubu Theta Transmission Power line – Macro Economic Impact Assessment [Bembani Sustainability Training., 2010/2011].
- Proposed Eskom Venus – Sigma Transmission Line – Macro Economic Impact Assessment [Eskom Holdings Ltd. 2011].
- Macro-Economic Impact Assessment: Makhado Colliery Project [Jacana Environmentals cc., 2011].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project, 2011 [Sekoko Resources (Pty) Ltd., 2010]

- Macro and Micro-Economic Impact Analysis and Cost Benefit Analysis of the Overvaal Project [Jacana Environmentals cc., 2010].
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Proposed Vele Colliery near Musina, Limpopo [Naledi Development (Pty) Ltd., 2010]
- Macro-economic Impact Analysis and Cost Benefit Analysis of the Sekoko Coal Waterberg Project [Lexshell 126 General Trading (Pty) Ltd. 2010].
- Eskom Mokopane Integration Project – Economic Impact Assessment [Savannah Environmental (Pty) Ltd., 2010].
- Macro-economic Impact Assessment of the Proposed Vele Colliery near Musina, Limpopo. [Naledi Development/Jacana Environmentals, 2008, 2009, 2010].
- Mokolo and Crocodile River (West) Water Augmentation Project – Regional and Local Economic Impact Assessment of the Proposed Water Augmentation [Naledi Development Restructured].
- Intermediate Reserve Determination Study for the Surface and Groundwater Resources in the Mokolo Catchment, Limpopo Province – Socio Economic Present State Evaluation [Dept of Water Affairs].
- Millennium Development Goals needs assessment and costing exercise in Botswana [United Nations Development Programme in Botswana (UNDP), 2007].
- A Needs Assessment for Achieving the Millennium Development Goals (MDG) in Lesotho – [World Bank, 2005].
- Costing of the Lesotho Poverty Reduction Strategy Paper (PRSP) [UNDP, 2003].

ABRIDGED CV

Riaan A. J. Robbeson (Pr.Sci.Nat.)
Ecologist - Botanist



Personal Particulars

Date of Birth: 13th April 1969
Nationality: South African
Address: PO Box 77448, Eldoglen, 0171
Cellular Contact: 082 3765 933
Telephone Contact: 012 658 5579
email: riaan@bathusi.org

Consulting experience: 16 years
Name of Firm: Bathusi Environmental Consulting cc
Position: Member, Specialist Investigator
Years with BEC: 11 years
Profession: Environmental Scientist, Ecologist, Botanist

Education

DEGREE / DIPLOMA	FIELD	INSTITUTION
B.Sc.	Botany and Zoology (main subjects)	University of Pretoria (1987 – 1991)
B.Sc. (Hons)	Botany	University of Pretoria (1992)
M.Sc.	Plant Ecology	University of Pretoria (1994 – 1998)
Visual Basic Programming	Programming	Unischool (University of Pretoria), 1999

Employment Record

POSITION	COMPANY	JOB DESCRIPTION	DURATION
Research Assistant	University of Pretoria	Botanical surveys, plant identifications, data capturing, data analysis, report compilation, phytosociological descriptions, Post graduate Masters Publications	1994 - 1998
Member	EkoInfo cc	Project acquisition, site investigations, data analysis, report compilation, GIS mapping, selected peer review for publications and specialist reports	1995 - 1999
Member	Bathusi Environmental Consulting	Project acquisition, project management, site investigations, data analysis, report compilation, GIS mapping, selected peer review for publications and specialist reports, financial administration	1999 - present

Affiliations

CLASS	PROFESSIONAL SOCIETY	YEAR OF REGISTRATION
Pr.Sci.Nat.	South African Council of Natural Scientific Professions (SACNASP) (Ecological Scientist & Botanical Scientist, Reg no: 400005/03)	2003
Professional Member	Grassland Society of Southern Africa	2008
Member	Succulent Society of Southern Africa	
Member	Botanical Society of Southern Africa	

Experience & Project Contributions

Fair and Reasonable Opinions:

YEAR	CLIENT	RESPONSIBILITY	DESCRIPTION
2002	Deneys Reitz Attorneys	Environmental Due Diligence	Determining the fire damage to the structural layers of the vegetation in Sabi Sand Private Game Reserve
2007	Cameron Cross Inc	Environmental Due Diligence	Investigating findings of GDACE in negative ROD for the proposed Greengate Residential Establishment

Abbreviated list of Current Tasks & Completed Projects:

YEAR	CLIENT	COMMODITY	PROJECT DESCRIPTION
2012	Mills & Otten	Farming	Biodiversity EIA for the proposed Highveld Mushroom Development on the farm Doornrandje, Gauteng Province
	Envirolink	Utilities	Biodiversity EIA for the proposed Lospersfontein & Groenpunt Prisons Water Treatment Plant Expansions, Free State & North-West Provinces
	Worley Parsons	Energy Utility	Biodiversity EIA for the proposed Rooipunt Solar Power Plant, Northern Cape Province
	GCS	Mining	Biodiversity EIA for the proposed Wits Gold Mine, Free State Province
	Worley Parsons	Energy Utility	Biodiversity EIA for the proposed Arriesfontein Photovoltaic Plant, Northern Cape Province
	GCS	Mining	Biodiversity EIA for the proposed Matla Coal Stopping and Open Cast Mine Project, Mpumalanga Province
	Marsh Vikela	Mining	Biodiversity EIA for the Pering Mine, North-West Province
	GCS	Mining	Biodiversity EIA for the proposed Slater Coal Witkop Mine, Free State Province
2011	GEM Diamonds	Mining	Biodiversity comments on the Site Selection for Letseng Diamond Mine, Lesotho
	Solafrica	Scientific	Development of a Biodiversity Offset Programme for the Bokpoort Development
	Lidwala Consulting Engineers	Mining	Hendrina Ash Dam Biodiversity EIA Assessment
	Worley Parsons	Power Utility	Rooipunt Solar Development Biodiversity Scoping Assessment
	Worley Parsons	Scientific	Survey of protected flora species on the

			Humansrus Solar Development
	Cave Clapwijk & Associates	Scientific	Peer review of the biodiversity impact assessment report of the N3 Highway upgrade
	SSI Environmental	Power Utility	Protected Species Survey at the Solar Plant development at Bokpoort, Northern Cape Province
	GCS	Mining	Biodiversity Scoping Assessment of the proposed mining development of the Matla Project, Mpumalanga Province
	GCS	Mining	Biodiversity Baseline Assessment of the proposed mining development at Eloff, Mpumalanga Province
	SSI Environmental	Power Utility	Biodiversity Scoping and EIA Assessments of the proposed Solar Plant Development on the farm Humansrus, Northern Cape Province
	Lidwala Engineers	Mining	Biodiversity Scoping Report for the proposed Hendrina Ash Dam development, Mpumalanga Province
	Momentum Energy	Power Utility	Biodiversity Basic Assessment of the proposed Solar Plant development on the farm Spruitfontein, North-West Province
	Lidwala Engineers	Mining	Biodiversity Screening Report for the proposed Hendrina Ash Dam, Mpumalanga Province
	SSI Environmental	Power Utility	Biodiversity Basic Assessment of the proposed Kudu – Dorstfontein Power Line, Mpumalanga Province
	SSI Environmental	Power Utility	Biodiversity Basic Assessment of the proposed Paulputs – Aggeneys Power Line, Northern Cape Province
	PB Power	Power Utility	Assessment of protected tree species on the proposed Medupi Power Station Water Pipeline and Conveyor Line, Limpopo Province
	GCS	Mining	Assessment of protected tree species on Der Brochen Mine, Mpumalanga Province
	SSI Environmental	Power Utility	Concentrated Solar Thermal Power Plant, Northern Cape Province
	Mills & Otten	Scientific	Peer review of Draft Ecological report for the proposed development of Farm Zwartkop, Gauteng Province
	Arcus Gibb	Power Utility	Floristic walkdown of the approved Watershed-Mmabatho 88kV line, North-West Province
	SSI Environmental	Power Utility	Strategic biodiversity Impact Assessment of the proposed Underground Gasification Plant, Mpumalanga Province
	SSI Environmental	Power Utility	Strategic Biodiversity EIA report for the proposed Matla-Jupiter-Sebenza project, Gauteng Province
	SSI Environmental	Power Utility	Strategic Biodiversity EIA report for the proposed Matla-Jupiter 400kV Lines, Gauteng & Mpumalanga Provinces
	SSI Environmental	Power Utility	Terrestrial Biodiversity EIA report for the proposed Hilltop-Rest Line and Substation, Mpumalanga Province
2010	Kwezi V3 Engineers	Waste	Terrestrial Biodiversity EIA report for the proposed Naledi Landfill Site, North-West Province
	GCS	Mining	Terrestrial Biodiversity EIA report for the proposed Forzando West Underground Mine and

			infrastructure, Mpumalanga Province
Savannah Environmental	Power Utility		Strategic Terrestrial biodiversity EIA report for the proposed Mokopane Integration Project, Limpopo Province
Savannah Environmental	Mining		Strategic Biodiversity EIA for the proposed Medupi Conveyor & Silo, Limpopo Province
SSI Environmental	Power Utility		Floristic Basic Assessment for the Ivory Park – Eskom College 88kV Line rebuild, Gauteng Province
SSI Environmental	Power Utility		Floristic Basic Assessment for the Lulamisa 88kV Line rebuild, Gauteng Province
SSI Environmental	Infrastructure		Floristic Basic Assessment for the proposed Rand Water Pipeline upgrades, Gauteng Province
Bombela CJV	Infrastructure		Ecological monitoring report for ecologically sensitive areas along the Gautrain Construction Route, Gauteng Province
GCS	Mining		Biodiversity Risk Assessment & Baseline biodiversity aspects for the proposed Kangra-Kusipongo Shaft locations, Mpumalanga Province
Marsh Vikela	Housing		Leeuwpoot Biodiversity Impact Assessment, Gauteng Province
Savannah Environmental	Power Utility		Biodiversity EIA assessment of the proposed Apollo-Verwoerdburg 400kV Lines, Gauteng Province
Kwezi V3 Engineers	Power Utility		Ecological EIA report for the proposed Ubertas Substation, Gauteng Province
Savannah Environmental	Power Utility		Red Data flora assessment for the proposed Apollo-Verwoerdburg 400kV Lines, Gauteng Province
Marsh Vikela	Housing		Biodiversity Assessment for the proposed Leeuwpoot Wetland crossing, Gauteng Province
Medupi Power Station	Power Utility		Chairperson for the Medupi Environmental Monitoring Committee (February – April 2010)
Medupi Power Station	Power Utility		Member of the Medupi Environmental Monitoring Committee (2007 – current)
Kwezi V3	Waste		Biodiversity Impact Assessment for the proposed Emfuleni Landfill project, Gauteng Province
Savannah Environmental	Power Utility		Biodiversity EIA report for the proposed Kwagga & Phoebes Substations, Gauteng Province
Savannah Environmental	Power Utility		Biodiversity EIA report for the proposed Kwagga & Phoebes Lines, Gauteng Province
PBA International	Power Utility		Biodiversity EIA report for the proposed Epsilon Substation, North-West Province
SSI Environmental	Power Utility		Strategic Biodiversity Assessment for the proposed Lupini-Lulamisa Lines, Gauteng Province
PBA International	Power Utility		Biodiversity Scoping Assessment for the proposed Mogwase Substation, North-West Province
Marsh Vikela	Scientific		Red Data flora assessment for the proposed Kameeldrift development, Gauteng Province

	Kwezi V3	Power Utility	Honingklip Ecological EIA, Gauteng Province
	Umoyo Wind Projects	Power Utility	Bioregional overview, Eastern Cape Province
	Kwezi V3	Power Utility	Eskom College – Randjesfontein Ecological EIA
	Marsh Vikela	Urban	Kameeldrift Red Data flora assessment
2009	Savannah Environmental	Power Utility	Mokopane Integration – Ecological EIA
	SSI Environmental	Industrial	Bulldog Projects – Floristic Screening Assessment
	Golder Associates	Infrastructure	Environmental Monitoring of the River Falls Office Park, Gauteng Province
	Mills & Otten	Infrastructure	Environmental Monitoring of the Heritage Hill Pipeline construction process, Gauteng Province
	Marsh Vikela	Infrastructure	Bio-remedial report for the Witkoppen Park, Gauteng Province
	PBA International	Power Utility	Masa Selomo 765kV Lines Ecological EIA
	Mills & Otten	Infrastructure	Bakgatla Ecological EIA
	GCS	Power Utility	Kangra PS Ecological EIA
	Kwezi V3 Engineers	Scientific	Red Data floras assessment for the proposed Doornkloof Reservoir, Gauteng Province
	Savanna Environmental	Power Utility	Kyalami Strengthening
	NuCoal Mining	Monitoring	Environmental monitoring of ecological environment
	SSI	Power Utility	Watershed Sephaku Biodiversity EIA, Mpumalanga Province
	NuCoal	Mining	Klipfontein Biodiversity EIA, Mpumalanga Province
	Arcus Gibb	Power Utility	Biodiversity Scoping Assessment for the proposed Mulilo Power Station, Limpopo Province
	GCS	Power Utility	Preliminary Site Selection for the proposed Kangra Power Station, Mpumalanga Province
	GCS	Mining	Biodiversity EIA for the proposed Maquasa West Mine, Mpumalanga Province
	Mills & Otten	Housing	Biodiversity EIA for the proposed Elandsfontein development, Gauteng Province
	Arcus Gibb	Power Utility	Biodiversity Basic Assessment for the proposed Watershed-Mmabatho line, North-West Province
	Arcus Gibb	Mining	Biodiversity Assessment for the proposed Medupi Borrow Pits, Limpopo Province
	Marsh Vikela	Housing	Biodiversity EIA for the proposed Spring Valley Development, Mpumalanga Province
	Iliso Environmental	Industrial	Remedial EMP for the Kaalplaasspruit, Gauteng Province
	PB Power	Power Utility	Environmental Monitoring Committee
	PBA International	Power Utility	Epsilon Substation Biodiversity Scoping Assessment
	Marsh Vikela	Mining	GOPE Diamon Mine, Central Kalahari Game Reserve, Botswana
SSI Environmental	Power Utility	Vygeboom EMP	
2008	Groundwater Consulting Services	Mining	Kusipongo Biodiversity Screening Assessment
	Iliso Consulting	Development	Kaaplaasspruit Remedial EMP
	Savannah Environmental	Power Utility	Mokopane Integration Biodiversity Scoping Investigation
	SSI Environmental	Power Utility	Majuba Combined Cycle Gas Turbine Biodiversity EIA

	Marsh Vikela (PTY) LTD	Mining	Ecological Impact Evaluation of the proposed GOPE Mine, Botswana
	PB Power	Power Utility	Environmental Monitoring Committee (Ecological Division) for the new Medupi Power Station, Lephalale
	PBA International	Power Utility	Ecological Impact Evaluation of the proposed Epsilon Substation, North-West Province
	Woestalleen Colliery	Mining	Development and implementation of ecological monitoring programme since 1996
	Bombela JV	Transport	Implementation of ecological monitoring programme for the new Gautrain Rail development, Gauteng Province
	Kwezi V3 Engineers	Mining	Ecological Impact Evaluation of the proposed Greenfields Expansion Project, Mpumalanga Province
	EkoInfo	Mining	Mmamabula vegetation surveys, Botswana
	Bohlweki Environmental	Power Utility	Ecological Impact Evaluation of the proposed Marathon Delta and Boulders Malelane 132kV lines, Mpumalanga Province
2007	PBA International	Power Utility	Ecological Impact Assessment of the Matimba – Marang Power lines
	PBA International	Power Utility	Ecological Impact Assessment of the Matimba – Dinaledi Power lines
	PBA International	Power Utility	Ecological Impact Assessment of the Mmamabula – Delta Power lines
	Marsh Vikela	Development	Ecological Impact Assessment of the farm Leeuwpoort
	Bohlweki	Power Utility	Ecological Impact Assessment of the proposed Steelpoort Pumped Storage Scheme
	SiVEST	Development	Ecological Assessment of the Bultfontein Development
	SiVEST	Development	Ecological Assessment of the Newmarket Development
	PBA International	Power Utility	Ecological Scoping and Impact Evaluations of the proposed Delta Epsilon Power Lines
	AgriDev International	Development	Ecological Impact Assessment of Golwe
	Bombela JV	Transport	Red Data species location and relocation for the Gautrain Development
	Eko-Info cc	Mining	Floristic Surveys of the proposed Nu-Largo coal mine
	Eko-Info cc	Mining	Floristic Surveys of the proposed Mmamabula coal mine
	Bohlweki	Mining	Floristic Impact Assessment of the proposed Underground Gasification Concept mining
	Bohlweki	Power utility	Biodiversity Impact Assessment of the Matimba B Power Station
2006 & beyond	PBA International	Power utility	Biodiversity Scoping assessment of the proposed Matimba Integration
	Digby Wells	Mining	Biodiversity Assessment of the proposed Mareesburg mine
	Bohlweki	Power utility	Floristic Assessments of the Kabokweni and Kiepersol power lines
	African EPA	Development	Bryntirion, Paardeplaats, Willows, Simon Vermooten Floristic Assessments
	Eko-Info	Development	Floristic sampling of Lula, Mozambique
	Mills & Otten	Development	Olievenhoutbosch, Brakfontein, Kosmosdal, Blue Hills, Garstfontein Biodiversity

		Assessments
Agricultural Research Council	Research	Management Guidelines and Impact Assessment of Quelea control activities in wetlands, Free State Province
SEF	Research	Floristic sampling of the Tshwane Municipal area
University of Pretoria	Research	Floristic sampling of the Kglalagadi Transfrontier Park, Botswana
Confidential	Development	Biodiversity assessment of selected sites in the Okavango Delta for limited lodge development and hunting concessions, Botswana
GCS	Mining	Ecological investigation of Wildebeestpan, Limpopo Province
GCS	Mining	Ecological investigation of Teutfontein, Limpopo Province
GCS	Mining	Ecological investigation of Aasvoelkrans, Kwa-Zulu Natal Province
GCS	Mining	Ecological investigation of Klipspruit, Kwa-Zulu Natal Province
Northam Platinum Limited	Mining	Development of an alien control programme for the mining area.
SEF	Development	Removal and relocation of medicinal plants from Calswald development site , Gauteng Province
Woestalleen Collier	Mining	Development and installation of a natural wind and visual break between mining and provincial roads
Confidential	Research	Vegetation structure analysis around permanent waterpans in the Chobe National Park, Botswana
Institute for Soil, Climate and Water	Research	Floristic sampling and development of a GIS remote sensing tool for the assessment of natural degradation of vegetation in the Gauteng Province
Institute for Soil, Climate and Water	Research	Floristic sampling and development of a GIS remote sensing tool for the assessment of natural degradation of vegetation in the Mpumalanga Province
University of Pretoria	Research	Botanical sampling of the vegetation of Transkei for compilation of maps and vegetation description, contribution to the current VEGMAP classification series

Key Qualifications

Riaan A.J. Robbeson is an experienced and passionate ecologist, having obtained his Masters degree in Plant Ecology at the University of Pretoria while working as a research assistant on the National Grassland Biome Project. This research included the mapping and description of the vegetation in northern KwaZulu-Natal Province, covering an area of approximately 9,300km². His involvement in specialist environmental studies followed naturally after graduation and he has since 1996 been professionally involved in numerous projects that related to his field of expertise, ranging in size from a few hectares to provincial scale.

Extensive experience has subsequently been obtained on the status and reaction of the natural environment to development and the assessment thereof. In addition to pure scientific investigations, he has also developed and successfully implemented biodiversity monitoring programmes on mining areas. International projects include the countries of Botswana and Mozambique. Project management include the acquisition and management of other specialist investigators and the ecological integration and interpretation of biodiversity data and reports.

On a personal level, Riaan is also an amateur wildlife photographer and is compiling a personal database of photographs of South African wild flowers. He also is a social ultra distance runner and has completed 5 Comrades marathons.

Languages

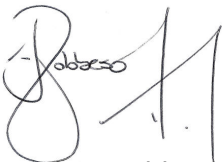
English: RWS - Excellent
Afrikaans: RWS - Excellent

Computer Skills

- MS Word
- MS Excel
- MS Access
- Arcview 3.2 (a)
- Google Earth
- Adobe Photoshop CS & Lightroom 2.6
- Visual Basic Programming

Certification

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications and experience.



Riaan A.J. Robbeson (Pr.Sci.Nat.)
29th March 2012

Dewald Kamffer



Curriculum Vitae

Personal Details:



- 1974 - born in Pretoria, South Africa
- 2010 - moved to Tzaneen, Limpopo Province
- 37 years old male in good health
- Proficient in English & Afrikaans
- Interests include wildlife photography and sports

Academic History:

- 1992 – Matriculated: Hoërskool Waterkloof, Pretoria
- 1995 - B.Sc. (Zoology & Entomology); UP
- 1996 – B.Sc. (Hons – Entomology); UP
- 2004 – M.Sc. (Grassland Conservation Ecology); UP

Career History:

- 2001 – Game Ranger: Mala-Mala Private Game Reserve
- 2002-2012: Director, Ecocheck (EIA specialist company)

Professional Affiliation:

- Ecological and Zoological Scientist with the South African Council for Natural Scientific Professions (400204/05)

Contact Details:

- E-mail: ecocheck@ee-sa.com
- Cellular: +27 82 419 0196



Work Experience:

Between 2002 and 2012, Dewald contributed to 189 projects. Fields of expertise include general ecology, ecological modeling, zoological – and entomological specialist work. Clients included ESKOM, SASOL, Sun International and the Ekurhuleni Municipality. Projects were located in Botswana (4), Mozambique (3), Lesotho (1) and the South African Provinces of the Eastern Cape (1), Free State (6), KZN (3), Northern Cape (7), North-West (14), Limpopo (20), Mpumalanga (35) and Gauteng (95).



Dewald was the invertebrate/zoological/ecological specialist for one biodiversity assessment, one research project (Agricultural Research Council), one environmental risk assessment, two EMP's (Environmental Management Programmes), two environmental audits, three SEA's (Strategic Environmental Assessments), twenty-six EMPR's (Environmental Management Program Reports – for mining) and 144 EIA's (Environmental Impact Assessments). Assessments were conducted for proposed Game Lodges, mines, pipelines, roads, power lines, power generation plants and industrial, residential, mixed and infrastructure developments. Details of projects are summarized in Appendix I.



Private & Confidential

Appendix I: Projects since 2002 – involved as a zoological, ecological and/or invertebrate specialist

Year	Location	Province	Project	Client	Project Category
2002	Rosslyn, Pretoria	Gauteng	Supplier Park Development	Tribal Consultants	Industrial Development
2002	Hartbeesfontein	Mpumalanga	Hartbeesfontein Opencast Coal Mine	Eco-Afrika Consulting	Mining
2002	Middelburg	Mpumalanga	Carlswald Opencast Coal Mine	Tribal Consultants	Mining
2002	Ogies	Mpumalanga	CBM Opencast Coal Mine	Tribal Consultants	Mining
2002	Brits	NW Province	Brakspruit Granite Mine	Helio Alliance	Mining
2002	Willows, Pretoria	Gauteng	Willows Development	EkoInfo	Residential Development
2002	Centurion, Pretoria	Gauteng	Giel v/d Berg Development	Giel v/d Berg Trust	Residential Development
2003	Rosslyn, Pretoria	Gauteng	Supplier Park 2 Development	Tribal Consultants	Industrial Development
2003	Utrecht	KZN	Utrecht Mine	GCS	Mining
2003	Roosenekal	Mpumalanga	Roosenekal Opencast Coal Mine	Eco-Afrika Consulting	Mining
2003	Brits	NW Province	Frontier Granite Mine	Helio Alliance	Mining
2003	Dullstroom	Mpumalanga	Highlands Gate Golf Estate	Eco Assessments	Mixed Development
2003	Cradle-of-humankind	Gauteng	Cradle-of-humankind Development	Eco Assessments	Residential Development
2003	Kromdraai	Gauteng	Kromdraai Development	Eco Assessments	Residential Development
2003	Featherwood	Gauteng	Featherwood Development	Eco Assessments	Residential Development
2003	Amandasig, Pretoria	Gauteng	Amandasig Development	EkoInfo	Residential Development
2003	Sterrewag, Pretoria	Gauteng	Sterrewag Development	EkoInfo	Residential Development
2003	Bordeaux	Gauteng	Bordeaux Development	EkoInfo	Residential Development
2003	Randjiesfontein	Gauteng	Randjiesfontein Equestrian Development	EkoInfo	Residential Development
2003	Summerset, Jhb.	Gauteng	Summerset Development	Tribal Consultants	Residential Development
2003	Olienhoutbosch, Midrand	Gauteng	Olienhoutbosch Development	Tribal Consultants	Residential Development
2003	Irene, Pretoria	Gauteng	Irene Township Development	Tribal Consultants	Residential Development
2003	Brakfontein	Gauteng	Brakfontein Development	Tribal Consultants	Residential Development
2003	Valley View	Gauteng	Valley View Development	Tribal Consultants	Residential Development
2004	Thabazimbi	Limpopo	BJF Game Range	EkoInfo	Game Lodge

Private & Confidential

2004	Middelburg	Mpumalanga	Schoonoord Opencast Coal Mine	African EPA	Mining
2004	Reitz	Free State	Reitz Quelea Research Project	ARC	Research
2004	Broadacres	Gauteng	Broadacres Development	EIMS (Pty) Ltd	Residential Development
2004	Midrand	Gauteng	Heaven-on-earth Development	EkoInfo	Residential Development
2004	Valley Farm	Gauteng	Valley Farm Development	Plan Practice	Residential Development
2004	Louwleria	Gauteng	Louwleria Development	Tribal Consultants	Residential Development
2004	Maruladal	Gauteng	Maruladal Development	Tribal Consultants	Residential Development
2004	Craigavon	Gauteng	Craigavon Development	Tribal Consultants	Residential Development
2004	Witkoppen	Gauteng	Witkoppen Development	Tribal Consultants	Residential Development
2004	Sun City Complex	NW Province	Sun City Vacation Club Development	Sun International	Resort Development
2004	Olienhoutbosch, Midrand	Gauteng	Olienhoutbosch Road	KV3 Engineers	Road Development
2004	Kimberly region	Northern Cape	Frances Baard Municipality SEA	EkoInfo	Strategic Assessment
2005	Leopard's Bend Lodge	Limpopo	Leopard's Bend Lodge Development	EkoInfo	Game Lodge
2005	Middelkraal	Mpumalanga	Middelkraal Opencast Coal Mine	African EPA	Mining
2005	Wallmansthal	Gauteng	Wallmansthal Development	BEC	Mixed Development
2005	Lion Park	Gauteng	Lion Park Development	EkoInfo	Mixed Development
2005	Lakenvlei, Dullstroom	Mpumalanga	Lakenvlei Development	African EPA	Mixed Development
2005	Ellisras	Limpopo	Medupi Power Station	ESKOM	Power Generation
2005	Silverton, Pretoria	Gauteng	Silverton Development	BEC	Residential Development
2005	Cashan	Gauteng	Cashan Development	BEC	Residential Development
2005	Waterkloof Heights	Gauteng	Waterkloof Heights Development	BEC	Residential Development
2005	Hartbeespoortdam	Gauteng	Beau Rivage Development	BEC	Residential Development
2005	Hartbeespoortdam	Gauteng	Le Chateau Development	BEC	Residential Development
2005	Garsfontein	Gauteng	Garsfontein Development	BEC	Residential Development
2005	Honingklip	Gauteng	Honingklip Development	EkoInfo	Residential Development
2005	Modderfontein	Gauteng	Modderfontein Development	EkoInfo	Residential Development
2005	Rietvallei	Gauteng	Rietvallei Development	EkoInfo	Residential Development
2005	The Hills	Gauteng	The Hills Development	EkoInfo	Residential Development



Private & Confidential

2005	Rooihuiskraal	Gauteng	Rooihuiskraal Development	EkoInfo	Residential Development
2005	Paardeplaats	Gauteng	Paardeplaats Development	Landev (Pty) Ltd	Residential Development
2005	North Riding	Gauteng	North Riding Development	Tswelopele Environmental	Residential Development
2005	Zuickerboschfontein	Gauteng	Zuickerboschfontein Development	Zuicker. Property Trust	Residential Development
2005	Impomelelo	Mpumalanga	Impomelelo Development	EkoInfo	Residential Development
2005	Rustenburg	NW Province	Amarosa Development	BEC	Residential Development
2005	Rustenburg	NW Province	Waterval Development	BEC	Residential Development
2005	Elandsfontein	NW Province	Elandsfontein Development	EkoInfo	Residential Development
2005	Kololo Lodge	Limpopo	Kololo Lodge Development	EkoInfo	Resort Development
2005	Inhassoro	Mozambique	Lula Lodge	EkoInfo	Resort Development
2005	Simon Vermooten Road	Gauteng	Simon Vermooten Road Extensions	BEC	Road Development
2005	Klapperkop	Gauteng	Klapperkop SEA	EkoInfo	Strategic Assessment
2006	Kapama Game Lodge	Limpopo	Kapama Game Lodge Development	EkoInfo	Game Lodge
2006	Thabazimbi	Limpopo	Koedoesfontein Development	EkoInfo	Game Lodge
2006	Messina	Limpopo	Messina Weigh Bridge	BEC	Industrial Development
2006	Central District	Botswana	Mmamabula Opencast Coal Mine	EkoInfo	Mining
2006	Soutpansberg	Limpopo	Soutpansberg Mining Exploration	ERM	Mining
2006	Mareesburg	Mpumalanga	Mareesburg Opencast Coal Mine	BEC	Mining
2006	Mpumalanga	Mpumalanga	Xstrata Opencast Coal Mine	Xstrata Coal	Mining
2006	Voortrekker Monument	Gauteng	Voortrekker Monument Development	EkoInfo	Mixed Development
2006	Fountains Valley	Gauteng	Fountains Valley Development	EkoInfo	Mixed Development
2006	Zesfontein	Gauteng	Zesfontein Landfill Site	Ekurhuleni Municipality	Mixed Development
2006	Germiston	Gauteng	SWM Development	Germiston Uitgewers	Mixed Development
2006	Bloemfontein - De Aar	Free State	Perseus-Hydra Transmission Power Line	ESKOM	Power Transmission
2006	Equestria	Gauteng	Equestria Development	ASG Rental Solutions	Residential Development
2006	Doornkraal	Gauteng	Doornkraal Development	BEC	Residential Development
2006	Zwartkoppies	Gauteng	Zwartkoppies Development	BEC	Residential Development
2006	Donkerhoek	Gauteng	Donkerhoek Development	BEC	Residential Development



Private & Confidential

2006	Jameson Field	Gauteng	Jameson Field Development	BEC	Residential Development
2006	Olympus	Gauteng	Olympus Development	BEC	Residential Development
2006	Willows, Pretoria	Gauteng	Willows Development	BEC	Residential Development
2006	Sedibeng	Gauteng	Sedibeng Development	EkoInfo	Residential Development
2006	Cullinan	Gauteng	Cullinan Development	EkoInfo	Residential Development
2006	Bronberg	Gauteng	Bronberg South Development	EkoInfo	Residential Development
2006	Pretoria	Gauteng	Zambezi Development	EkoInfo	Residential Development
2006	Midrand	Gauteng	Midrand Development	EkoInfo	Residential Development
2006	Willowbrae	Gauteng	Willowbrae Development	Vexma Properties	Residential Development
2006	Schurveberg	Gauteng	Schurveberg Development	Viking Properties 330	Residential Development
2006	Boschkop	Gauteng	Boschkop Development	Viking Properties 330	Residential Development
2006	Mpumalanga	Mpumalanga	Zone-of-Integration Development	BEC	Residential Development
2006	Trichardt	Mpumalanga	Trichardt Development	Prohibio	Residential Development
2006	De Rust	NW Province	De Rust Development	BEC	Residential Development
2006	Rigel Ave South	Gauteng	Rigel Development: Risk Assessment	EkoInfo	Risk Assessment
2006	Vredefort Dome	Free State	Vredefort Dome SEA	African EPA	Strategic Assessment
2007	Gautrain	Gauteng	Gautrain	BEC	Infrastructure Development
2007	Francistown	Botswana	TATI Nickel Mine	Marsh Vikela	Mining
2007	Wild Coast	Eastern Cape	Xolobeni Mine	Pachnoda Consulting	Mining
2007	Thorncliff	Limpopo	Thorncliff Mine	AGES SA	Mining
2007	Rockdale	Limpopo	Rockdale Ferrochrome Mine	BEC	Mining
2007	Steelpoort	Mpumalanga	Steelpoort Mining	BEC	Mining
2007	Sun City Region	NW Province	PTM Platinum Mine	Oryx Environmental	Mining
2007	Kliprivier	Gauteng	Kliprivier Development	Kenric Investments	Mixed Development
2007	Punda Maria	Limpopo	Vhurivhuri Tribal Area Development	BEC	Mixed Development
2007	Pretoria - Bronkhorstspuit	Gauteng	Petronet Multipurpose Pipeline	BEC	Pipeline
2007	Pretoria	Gauteng	Marang Transmission Power Line	ESKOM	Power Transmission
2007	Thabazimbi	Limpopo	Dinaledi Transmission Power Line	ESKOM	Power Transmission



Private & Confidential

2007	Ellisras	Limpopo	Mmamabula - Delta Power Line	ESKOM	Power Transmission
2007	Ashlea Gardens	Gauteng	Ashlea Gardens Development	BEC	Residential Development
2007	Rabie Ridge	Gauteng	Rabie Ridge Development	BEC	Residential Development
2007	Newmarket	Gauteng	Newmarket Development	BEC	Residential Development
2007	Leeupoort	Gauteng	Leeupoort Development	BEC	Residential Development
2007	Bultfontein	Gauteng	Bultfontein Development	BEC	Residential Development
2007	Klipdrift	Gauteng	Klipdrift Development	BEC	Residential Development
2007	Selcourt	Gauteng	Selcourt Development	BEC	Residential Development
2007	Shoshanguve	Gauteng	Shoshanguve Development	EkoInfo	Residential Development
2007	Kievietskroon	Gauteng	Kievietskroon Development	EkoInfo	Residential Development
2007	Raslouw	Gauteng	Raslouw Development	EkoInfo	Residential Development
2007	Dainfern	Gauteng	Dainfern Development	Golden Creek Investments	Residential Development
2007	Pienaarspoort	Gauteng	Pienaarspoort Development	Krysanthe Properties	Residential Development
2007	Mooiplaats	Gauteng	Mooiplaats Development	Pachnoda Consulting	Residential Development
2007	Schoemanskloof	Mpumalanga	Schoemanskloof Development	GO EnviroScience	Residential Development
2007	The Hills	Gauteng	The Hills Road Development	EkoInfo	Road Development
2007	Nelspruit - Baberton	Mpumalanga	R40 Road upgrade	BEC	Road Development
2008	Pienaars River	Gauteng	Klipdrift Water Works	Enviro-Namic	Infrastructure Development
2008	Pienaars River	Gauteng	Klipdrift Weir	Magalies Water	Infrastructure Development
2008	Rustenburg	NW Province	Lonmin Mine	EkoInfo	Mining
2008	Francistown	Botswana	Selkirk Lionore Mine	AGES SA	Mining
2008	Central Kalahari Game Reserve	Botswana	GOPE Diamond Mine	Marsh Vikela	Mining
2008	Ellisras	Limpopo	Medupi Borrow Pits	BEC	Mining
2008	Kriel	Mpumalanga	Dorstfontein Opencast Coal Mine	GCS	Mining
2008	Greenfield	Gauteng	Greenfield Expansion Development	BEC	Mixed Development
2008	Ingwenya Lodge	Gauteng	Ingwenya Lodge Development	EkoInfo	Mixed Development
2008	Kusipongo	Mpumalanga	Kusipongo Red Data Assessment	BEC	Mixed Development
2008	Sun City Complex	NW Province	Sun City Golf Course Development	Sun International	Mixed Development



Private & Confidential

2008	Majuba	Mpumalanga	Majuba Power Generation Plant	ESKOM	Power Generation
2008	Majuba - Estcourt	KZN	Majuba - Venus Transmission Power Line	ESKOM	Power Transmission
2008	Nelspruit - Malelane	Mpumalanga	Boulders - Malelane Transmission Lines	ESKOM	Power Transmission
2008	Mmabatho	NW Province	Watershed - Mmabatho Power Line	ESKOM	Power Transmission
2008	Bloemfontein - De Aar	Northern Cape	Perseus-Hydra Power Line Walkdown	ESKOM	Power Transmission
2008	Crystal Park	Gauteng	Crystal Park Development	BEC	Residential Development
2008	Houtkop	Gauteng	Houtkop Development	BEC	Residential Development
2008	Willow Park	Gauteng	Willow Park Development	Zotec Developments	Residential Development
2008	Haenertsburg	Limpopo	Cooyong Development	Polygon Enviro Planners	Residential Development
2008	Fairland	Gauteng	Fairland Road Development	Arcus Gibb	Road Development
2008	Hartbeespoortdam	Gauteng	SANRAL KVV3 Road Development	Jeffares & Green	Road Development
2009	Hartbeespoortdam	Gauteng	NECSA Pipelines Assessment	EIMS (Pty) Ltd	Infrastructure Development
2009	Kangra	Mpumalanga	Kangra Site Selection	BEC	Mining
2009	Maquasa	Mpumalanga	Maquasa West Coal Mine	BEC	Mining
2009	Leopard's Bend Lodge	Limpopo	Leopard's Bend Lodge Development	EkoInfo	Mixed Development
2009	Sasolburg - Secunda	Mpumalanga	GNP SASOL Pipeline	SASOL	Pipeline
2009	Kookfontein	Gauteng	Glockner - Kookfontein Power Lines	ESKOM	Power Transmission
2009	Ellisras	Limpopo	Delta - Epsilon Power Lines	ESKOM	Power Transmission
2009	Elandsfontein	Gauteng	Elandsfontein Development	BEC	Residential Development
2009	Springvalley	Gauteng	Springvalley Development	BEC	Residential Development
2009	Klipfontein	Gauteng	Klipfontein Development	BEC	Residential Development
2009	Doornpoort	Gauteng	Doornpoort Development	First Land Developments	Residential Development
2010	Vryburg	Northern Cape	Naledi Landfill Site	BEC	Industrial Development
2010	Ellisras	Limpopo	Medupi Power Station Conveyor Belt	ESKOM	Infrastructure Development
2010	Forzando	Mpumalanga	Forzando Opencast Coal Mine	BEC	Mining
2010	Lower Zambezi River	Mozambique	Mphanda Nkuwa Dam, Zambezi River	Impacto	Power Generation
2010	Majuba	Mpumalanga	Majuba Underground Gasification Project	ESKOM	Power Generation
2010	Upington	Northern Cape	CSP Project	BEC	Power Generation



Private & Confidential

2010	Estcourt - Pietermaritzburg	KZN	Ariadne - Venus Power Lines	ESKOM	Power Transmission
2010	Ellisras	Limpopo	Mokopane Power Lines Integration Project	ESKOM	Power Transmission
2010	Nelspruit	Mpumalanga	Hilltop Rest Power Lines	ESKOM	Power Transmission
2010	Gauteng - Mpumalanga	Mpumalanga	Matla - Jupiter Power Lines	ESKOM	Power Transmission
2010	Kriel	Mpumalanga	Kudu - Dorstfontein Power Lines	ESKOM	Power Transmission
2010	Aggeneis	Northern Cape	Aggeneis - Paulputs Power Lines	ESKOM	Power Transmission
2010	Ellisras	Limpopo	Medupi - Spitskop Protected Tree Marking	PBA International	Power Transmission
2011	Belfast	Mpumalanga	Glisa Opencast Coal Mine	Pachnoda Consulting	Mining
2011	Rustenburg	NW Province	Momentum Solar Energy Plant	BEC	Power Generation
2011	Matla	Mpumalanga	Matla Opencast Coal Mine	BEC	Mining
2011	Letseng	Lesotho	Letseng Diamond Mine	BEC	Mining
2011	Hendrina	Mpumalanga	Hendrina New Ash Dam	BEC	Power Generation
2011	Rooipunt	Northern Cape	Rooipunt Solar Plant	BEC	Power Generation
2011	Pering, Vryburg	Northern Cape	Pering Mine	BEC	Mining
2011	Viljoenskroon	Free State	Witkop Colliery Project	BEC	Mining
2011	Eloff	Mpumalanga	Eloff Mining Project	BEC	Mining
2012	Matla, Bethal District	Mpumalanga	Matla Coal Project	BEC	Mining
2012	Tete Province	Mozambique	Tete Iron Project	Coffee International	Mining
2012	Inyanda, Witbank District	Mpumalanga	Pegasus South Project	Exarro	Mining
2012	Groenpunt Prison	Free State	Groenpunt Water Treatment Facility	BEC	Infrastructure Development
2012	Lospersfontein Prison	NW Province	Lospersfontein Water Treatment Facility	BEC	Infrastructure Development
2012	Rustenburg District	NW Province	Photo Voltaic Power Plant	BEC	Power Generation
2012	Ogies District	Mpumalanga	Photo Voltaic Power Plant	BEC	Power Generation
2012	Vaal Dam	Free State	Photo Voltaic Power Plant	BEC	Power Generation



PERSONAL PARTICULARS:

NAME: Jaco van der Walt
MARITAL STATUS: Married with two dependants
DATE OF BIRTH : 1977-11-04
ADDRESS: (w) Centre for Culture and Languages in Africa
House 5, Humanities Research Village
University of Johannesburg
Bunting Road Campus
Auckland Park
(h) 22 Bergen Weg Valhalla 0185
South Africa
E-MAIL: jaco.heritage@gmail.com
MOBILE: +27 82 373 8491
FAX: +27 86 691 6461

SYNOPSIS

Jaco has been actively involved as a professional archaeologist within the heritage management field in southern Africa for the past 10 years. During this time he worked at world renowned South African Universities and also as a consultant in the private sector. This experience provided him with an excellent foundation to act as facilitator between the challenges that development poses on our non renewable heritage resources while adhering to academic principles and complying with heritage legislation.

He is currently owner and founder of Heritage Contracts and Archaeological CC where he is responsible for the overall business management of the unit that includes the planning and directing of heritage surveys, excavations, grave relocations and consultation with indigenous communities. He held key management roles in successful projects including amongst others Eskom's Spencer –Vunulu Power line and BHP Billiton's Hotazel Manganese Mine. All projects were successfully completed within required deadlines as well as budgets and complied with Heritage Regulator's legal parameters.

Jaco is a council member for the Association of Southern African Professional Archaeologist (ASAPA) in the Cultural Resource Management (CRM) portfolio and is an accredited cultural resource management consultant with the ASAPA, AMAFA / Heritage Kwazulu Natal and the South African Heritage resources agency (SAHRA). Jaco obtained his degree in cultural heritage tourism followed by an honours degree in archaeology. He is well respected in his field and published in peer reviewed journals and presented his findings on various national and international conferences.

ACADEMIC QUALIFICATIONS:

Date of matriculation: 1995

Particulars of degrees/diplomas and/or other qualifications:

Name of University or Institution: University of Pretoria
Degree obtained : BA
Major subjects : Archaeology
Cultural Heritage Tourism
Year of graduation : 2001

Name of University or Institution: University of the Witwatersrand
Degree obtained : BA [Honours]
Major subjects : Archaeology
Year of graduation : 2002

Name of University or Institution :University of the Witwatersrand
Currently enrolled :BA [Masters]
Major subject :Archaeology
Year :Submitted March 2012

EMPLOYMENT HISTORY:

2011 – Present: **Founder and owner of Heritage Contracts and Archaeological Consulting CC.**

Duties included project management, implementation and execution of grave relocation projects and cultural resource management projects including archaeological impact assessments, heritage impact assessments as well as preparation of reports. Jaco is also guest lecturing at the University of the Witwatersrand and working at the University of Johannesburg assisting with course material and field work for Honours Students.

2007 – 2010 : **CRM Archaeologist,**

Managed the Heritage Contracts Unit at the University of the Witwatersrand. Duties included project management, implementation of grave relocation projects and cultural resource management projects, overall management and running of Unit as well as preparation of reports. He is also teaching CRM history and CRM Practise in South Africa to 3rd years students. In order to manage this Unit successfully the following competencies are required:

- Understanding of commercial and development drivers,
- Understanding of budgetary process and administration of this,
- Dealing with management of staff,
- Pragmatic approach to facilitating development,
- Highly developed and demonstrated problem-solving skills.

2005-2007: **CRM Archaeologist,** Director of Matakoma Heritage Consultants. – Duties included project management and implementation of grave relocation and cultural resource management projects, overall heritage management and running of company as well as preparation of reports.

- 2004: **Technical Assistant**, Department of Anatomy University of Pretoria – Worked in various fields like Paleo-anthropology; archaeology; forensics and worked as co-project manager of heritage impact assessments as partner of the Anthropology Private Practice Team of the University of Pretoria. During this time I was elected as a member of the Mapungubwe National Park Archaeological Task Group serving as a specialist archaeological consultant. Teaching experience: Fossil Preparation to 2nd year BSc Medical Science students
- 2003: **Archaeologist**, Mapungubwe World Heritage Site Archaeological Rehabilitation Project – Position held of supervisor that included management of labour force, directing excavations and documentation of archaeological digs.
- 2001 - 2002: **CRM Archaeologists**, For R & R Cultural Resource Consultants, Polokwane – Conducting Cultural Resource Management surveys and excavations on a variety of projects. Duties included fieldwork, management of staff and consultation with indigenous communities. After completion of projects results were presented in draft reports for approval from the lead archaeologist.
- 2000: **Museum Assistant**, Fort Klapperkop. Pretoria – Assisting with exhibitions, collections management and visitor interpretation.

Collaborating during this time in Research and CRM projects with the following institutions:

- Department of Archaeology and Environmental Studies, University of the Witwatersrand
- Department of Anthropology and Archaeology, University of Pretoria
- Department of Anatomy, University of Pretoria
- African Window Museum, National Flagship Institution
- Transvaal Museum, National Flagship Institution
- Department of Anthropology and Archaeology, UNISA
- Department of Old Testament and Ancient Near Eastern Studies, UNISA
- Bloemfontein Museum

**RESEARCH, FIELDWORK AND CULTURAL RESOURCE MANAGEMENT
EXPERIENCE:**

Countries of work experience:

Republic of South Africa, Botswana, Zimbabwe, Mozambique and Tanzania.

Research Projects:

1. 1998 - 2000: Mapungubwe and K2, Limpopo Province, under Prof A Meyer (Department of Anthropology and Archaeology, University of Pretoria).
2. 1999 - 2000: Excavation of a Middle Stone Age rock shelter for Krygkor, Gauteng Province, under H Prinsloo (Department of Anthropology and Archaeology, University of Pretoria).
3. 1999: Excavation of Askoppies Iron Age site, Vredefort Dome, under A. Pelsler.
4. 2000. Excavation of Late Iron Age Site, Medunza, Gauteng Province, Under F. Teichart.
5. 2000 Excavation of the Steinackers Horse Historical Archaeological Project in the Letaba Area, Kruger National Park, under directorship of Dr A.C. van Vollenhoven.
6. 2001, 2007: Excavation of K2 sites, Limpopo Province, under Prof T. Huffman (Department of Archaeology and Environmental Studies, University of the Witwatersrand).
7. 2002 Part of excavation team at Lapalala Wilderness area, under directorship of Dr J. Booyens, UNISA.
8. 2004 Skeletal rescue excavation in the Pilanesberg under directorship of Francois Coetzee.
9. 2004: Excavation of Structure BOL 1/6(b) at Maleoskop, Limpopo Province, , Field Director under Prof WS Boshoff (Department of Old Testament, UNISA) and Prof M Steyn (Department of Anatomy, University of Pretoria).
10. 2004 First Author of the interpretation panels in the open excavation K8, on the Southern Terrace of Mapungubwe.
11. 2006 Excavation of the Steinackers Horse Historical Archaeological Project at Skukuza, Kruger National Park, under directorship of Dr A.C. van Vollenhoven.

- 12.2007. Excavation of a Rain making site, Limpopo Province, under Dr. A. Schoeman (Department of Anthropology and Archaeology, University of Pretoria).
- 13.2009. Documentation of Iron Age Settlement engravings in association with stone walled ruins in conjunction with J.P Cilliers for the 500 year Research Initiative.
- 14.2010 Excavation of the Steinackers Horse Historical Archaeological Project at Onder Sabie, Kruger National Park, under directorship of Dr A.C. van Vollenhoven.

Cultural Resource Management Projects:

Phase 1 Cultural Resource Management (Heritage and Archaeological Impact Assessment) Projects:

1. 2001 – 2004 More than a hundred impact assessments. List of selected projects involving cell phone masts, upgrading of roads, bulk water supply, housing and mining projects etc.
2. 2004 Archaeological Impact Assessment for the proposed mining on the farm Bokfontein, North West province
3. 2004 A cultural heritage evaluation consisting of a desktop study for the proposed Rand Water Pipeline development from Midrand to Rustenburg
4. 2004 A cultural heritage evaluation for the proposed Spencer Venulu Power line
5. 2005 Township Development On Portions 140–182 And 190–206 On The Farm Sterkspruit 33 Jt, District Lydenburg
6. 2005 Heritage Impact Assessment Harmony Gold/ Simmer & Jack shaft – Waterpan 292 IQ
7. Heritage Impact Assessment Hotazel Manganese Mines, Wessels Mine on Section Of The Farms Wessels 227, Dibiaghomo 226 And Dikgathlong 268mamatwan Mine On Section Of The Farmsgoold 329 And Mamatwan 331
8. 2005 Heritage Impact Assessment of The Proposed Pipeline From Brandvlei To Krugersdorp On The Farm Brandvlei 261 Iq, District Mogale City, Gauteng Province
9. 2005 Heritage Impact Assessment Crocodile River Construction On

- Remaining Extend Of The Farm Vlakfontein 281ir, Nigel District
10. 2005 Heritage Impact Assessment Portion 9 Of The Farm Cromdale 453 Jt Jt, Nelspruit / Mbombela Area
 11. 2005 Heritage Scoping – Portion 30 Of The Farm Bothasfontein 408 Jr
 12. 2005 Heritage Scoping – Erf 61, Duxberry – 104 Coleraine Drive
 13. 2005 Environmental Screening Exercise For The Rezoning Of Erven 738, 739, 756 And 757 Houghton Estate, From Residential 1 To Special - A Guest House And Related Facilities
 14. 2005 Heritage Scoping – Holding 42 Inanda Agricultural Holdings
 15. 2005 Heritage Scoping – Erf. 213 (31 Musilis Drive, Northcliff) And Erf. 2673 (33 Musilis Drive, Northcliff, Extension 14)
 16. 2005 Archaeological Impact Assessment of St John's Garden Eco Estate, Heritage Scoping
 17. 2005 Heritage Assessment Of Dwelling On Property 53, St Andrews Avenue, Houghton
 18. 2005 Heritage Scoping – 123a Patricia Rd, Rivonia
 19. 2005 Heritage Assessment On Erf 127 Edenburg (No 30, 11th Avenue) Rivonia
 20. 2005 Assessment Of Erf 334 Bordeaux, Randburg
 21. 2005 Assessment Of Dwelling On Erf 2203 (298 Main Road) Bryanston
 22. 2005 Heritage Assessment Of Building On Erf 127 Edenburg (No 30, 11th Avenue) Rivonia
 23. 2005 Heritage Impact Assessment Grand Sasso Development On The Farm Friedenheim 282 Jt, District Nelspruit
 24. 2005 Archaeological Impact Assessment Mpumalanga Archives Building Portion 31 Of The Farm Boschrand 283 Jt, Nelspruit / Mbombela Area
 25. 2005 Archaeological Impact Assessment Proposed N17 Link Between Klipspruit Valley And Nasrec Road, Johannesburg
 26. 2005 Heritage Impact Assessment Proposed Naudesbank Mining Project, Mpumalanga Province
 27. 2005 Archaeological Scoping Assessment New Vaal Colliery Near Vereeniging
 28. 2005 Opinion On The Presence Of Archaeological And Heritage Sites On Portion 112 Of The Farm Olifantsfontein 402 Jr For Clayville Brickworks
 29. 2005 Archaeological Assessment For Low To Medium Cost Housing On

- Orange Farm, Gauteng Province
30. 2005 Archaeological Impact Assessment for Cementation Mining Portion 35 A Portion Of Portion 22 Of The Farm Renosterfontein 336 Jq, North West Province
 31. 2005 Archaeological Impact Assessment for Sonheuwel Extensions 9 & 10 On Portions 10 And 12 Of the Farm Beryl 313 Jt, District Nelspruit
 32. 2005 Heritage Impact Assessment Portion 6 Of The Farm Nooitgedacht 62 JU, White River
 33. 2005 Archaeological Impact Assessment Department Of Public Works
 34. 2005 Archaeological Impact Assessment Proposed Vosloorus Hospital
 35. 2005 Heritage Impact Assessment Proposed Riversong Residential Estate, Gauteng Province
 36. 2006 Archaeological And Heritage Report Riversdale Anthracite Colliery In The Abaqulusi Local Municipality
 37. 2006 Archaeological Impact Assessment Smokey Hills Platinum Project
 38. 2006 Archaeological Impact Assessment of Mining Development On The Farm Mareesburg 8 Jt, District Steelpoort
 39. 2006 Heritage Impact Assessment Proposed Discharge Of Treated Mine Water Via The Tweelopies Receiving Water Body Into The Rietriver, Mogale City, Gauteng Province
 40. 2006 Heritage Impact Assessment Proposed Discharge Of Treated Mine Water Via The Wonderfontein Spruit Receiving Water Body , Mogale City, Gauteng Province
 41. 2006 Heritage Impact Assessment Portions 26 And 44 Of The Farm Hennopsrivier 489-JQ
 42. 2006 Heritage Impact Assessment Johannesburg Zoological Gardens
 43. 2006 Heritage Impact Assessment Proposed Development On Portion 130 Of The Farm Diepsloot 388 Jr, Gauteng Province
 44. 2006 Heritage Impact assessment Proposed Wildlife Residential Estate On The Farm Doornrandje 386jr, Gauteng Province
 45. 2006 Archaeological Impact Assessment for Proposed Residential Development on the Farm Waterval120 Jt, Mpumalanga.
 46. 2006 Scoping Report As Part Of A Heritage Assessment As Required By The National Heritage Resources Act (25 Of 1999), For The Proposed Residential

- Development On The Farm Paarl, Lephalale, Limpopo Province
47. 2006 Heritage Impact Assessment Stone River Arch Development, Rietvlei 117, Johannesburg, Gauteng
 48. 2006 Archaeological Impact Assessment Mining Development On Portions 140–182 And 190–206 On The Farm Sterkspruit 33 Jt, District Steelpoort
 49. 2007 Archaeological Impact Assessment of Transvaal Gold Mining Estates Limited Elandsdrift 220 Jt
 50. 2007 Archaeological Impact Assessment Albertsdal Ext 4
 51. 2007 Archaeological Impact Assessment for Greengate Ext 12 on the Farm Rietfontein 189. Mogale City, Gauteng Province
 52. 2007 Heritage Assessment for Residential Estate, Portions 26 And 44 Of The Farm Hennoprivier 489-JR, Gauteng.
 53. 2007 Archaeological Impact Assessment The Village Extension 1, Holdings 2 To 6, Diswilmar Agricultural Holdings, Mogale City, Gauteng Province
 54. 2007 Archaeological Impact Assessment Tres-Jolie Ext 25 On Portion 160 Of The Farm Wilgespruit 190 Iq), Gauteng Province Transalloys –Highveld Steel, Witbank, Gauteng
 55. 2007 Archaeological Impact Assessment for Proposed New Township Development On Agricultural Holding 200, Princess Ah; Roodepoort, Johannesburg
 56. 2007 Archaeological Impact Assessment Your Storage –Storage Facility Portion 48 Of The Farm Rietfontein 189 Iq, Mogale City, Gauteng
 57. 2007 Archaeological Impact Assessment of Land Development On Holding 94 And Portions 20, 43, 46 And 47 Of The Farm Katoen 278jt, Mbombela Local Municipality, Mpumalanga Province
 58. 2007 Archaeological Impact Assessment of Certain Portions Of The Farms Zondagsvlei, Schoongezicht, Leeuwfontein, Klippoortje,
 59. 2007 Archaeological Impact Assessment for mining development of Springboklaagte, Cologne, Bombardie And Smithfield, Nkangala District, Mpumalanga Province
 60. 2007 Archaeological Impact Assessment for mining development on Klippoortje 32 Is, Nkangala District, Mpumalanga Province
 61. 2007 Archaeological Impact Assessment Stonehenge Extensions 11 On Portions 10 (A Portion Of Portion 6) Farm Maggiesdal 456jt Jt, Mbombela

Local Municipality, Mpumalanga Province

62. 2007 Archaeological Impact Assessment for mining development on Mooifontein 313 Kt, Tubatse Municipality, Limpopo Province
63. 2007. Heritage Impact Assessment On Browns Hill, Pelgrimsrus
64. 2007 Heritage Assessment – Lydenburg Ext 49, Interstate Clearing, Lydenburg, Mpumalanga,
65. 2007. Heritage Assessment – Hotazel Mines, Bhp Billiton, Hotazel, Northern Cape,.
66. 2007 Heritage Assessment – Sterkspruit Development, Lydenburg, Mpumalanga,
67. 2006 Heritage Assessment - Nooitgedacht Farm Development, Whiteriver, Mpumalanga,
68. 2006 Archaeological Assessment – Lake Kariba Filling Station, Nelspruit, Mpumalanga,.
69. 2006 Archaeological Assessment – Orange Farm Housing Development, Gauteng.
70. 2006. Specialist as part of team conducting a Archaeological Assessment for the Mmamabula mining project and power supply, Botswana.
71. 2007 Heritage Assessment – Friedenheim Development, Nelspruit, Mpumalanga.
72. 2006 Heritage Assessment – Mataffin Percent And Mbombela Stadium, Nelspruit, Mpumalanga,
73. 2007 Archaeological Impact Assessment Wachtenbietjeskop Eco – Estate. Located On Portion 79 Of The Farm Wachtenbietjeskop 506 Jr, Bronkhorstspuit Gauteng Province
74. 2007 Archaeological Impact Assessment Gvm Metals Limited Proposed Coal Mining On Portions Of The Farm Holfontein 138 Js, Secunda, Mpumalanga Province
75. 2007 Archaeological Impact Assessment Proposed Frankenwald Extension, Johannesburg, Gauteng Province.
76. 2007 Archaeological Impact Assessment Proposed Township: Chancliff Ridge Ext 34, Mogale City.
77. 2007 Archaeological Impact Assessment Rietvalleirand Extension 64. Remainder Of Holding 42 Waterkloof A.H, Pretoria, Gauteng Province

78. 2007 Archaeological Impact Assessment Proposed Land Development On Portion 42 And 44 Of The Farm Rietvallei 180 IQ, Muldersdrift, Gauteng Province
79. 2007 Archaeological Impact Assessment of Proposed New Residential Development On Portions 94 Of The Farm Buiskop of 464 Kr, Bela Bela, Northern Province
80. 2007 Archaeological Impact Assessment Proposed New Residential Development On Portions 429,426 &561 Of The Farm Derdepoort 326 Jr, Pretoria, Gauteng
81. 2007 Archaeological Impact Assessment Hoeksteen Park – Portion 845, Loskop Noord 12 Js, Marble Hall, Northern Province
82. 2007 Proposed New Commercial Development On Portion 58 Of The Farm Waterkloof 378 Jr, Lyttleton, Pretoria, Gauteng
83. 2007 Archaeological Impact Assessment Rietvalleirand Extension 64. Remainder Of Holding 42 Waterkloof A.H, Pretoria, Gauteng Province
84. 2007 Archaeological Impact Assessment Proposed New Residential Development On Portions 4 Of The Farm Strydfontein 307 Jr, Gauteng
85. 2007 Archaeological Impact Assessment Proposed New Residential Development On Portions 14 & 38 Of The Farm Strydfontein 306 Jr & Portions 6 & 14 Of The Farm Vrede 304 Jr, Gauteng
86. 2007 Archaeological Impact Assessment Welgegund – Portion 1 And 77 Of The Farm Welgegund 491 Jq, Hartbeespoort, North West Province
87. 2007 Archaeological Impact Assessment Township Development On Sub Division Of Portion 19, Pretoriuskraal, Orkney, North West Province
88. 2007 Archaeological Impact Assessment Township Development On Plot 18, Sub Division Of Portion 19, Pretoriuskraal, Orkney, North West Province
89. 2007 Archaeological Impact Assessment Proposed Rezoning Of Portion 428, Of The Farm Rietfontein 189-lq; Ruimsig, Johannesburg
90. 2007 Archaeological Impact Assessment Proposed New Township Development On Portion 204 Of The Farm Misgund 322-lq; Naturena, Johannesburg
91. 2007 Archaeological Impact Assessment Proposed New Residential Township On Portion 91 Of The Farm Nooitgedacht 534-Jq, Muldersdrift Johannesburg

92. 2007 Archaeological Impact Assessment Proposed New Township Development On Portion 22, 96 to 100 Of The Farm Zandspruit 191-Iq; Honeydew, Johannesburg
93. 2007 Archaeological Impact Assessment Proposed New Residential Development On Portion 22 Of The Farm Bronkhorstfontein 652iq; North West Province And On Portion 3 Of The Farm Patriotsfontein 558 Iq, Gauteng Province
94. 2007 Archaeological Impact Assessment Proposed New Residential Estate On Portion 24 Of The Farm Rusplaas 1388; Oranjeville District, Free-State Province
95. 2007 Archaeological Impact Assessment Umthombu Extension 23. Holding 501 Glen Austin A.H, Midrand, Gauteng Province
96. 2007 Archaeological Impact Assessment proposed New Residential Development On Portion 68 Of The Farm Vlakfontein 30 Jr, Benoni, Gauteng
97. 2007 Archaeological Impact Assessment Remainder Of Portion 25 Of The Farm Welgegund 491 Jq, Hartbeespoort, Gauteng Province
98. 2007 Archaeological Impact Assessment Proposed Industrial Development On Portion 53 Of The Farm Nooitgedacht 534, Gauteng Province
99. 2007 Archaeological Impact Assessment Proposed Industrial Development On Portion 217 Of The Farm Nooitgedacht 534 Jq, Muldersdrift, Gauteng Province
100. 2007 Archaeological Impact Assessment Proposed Residential Township Development On Poortview A.H. Portion 1 Of Holding, Ruimsig, Gauteng Province
101. 2007 Archaeological Impact Assessment Greengate Extension 30, Proposed Industrial Development On Portion 222 Of The Farm Rietfontein, Gauteng Province
102. 2007 Archaeological Impact Assessment Proposed New Residential Development On Portion 81 Of The Farm Sterkspruit 33 Jt; Lydenburg, Mpumalanga
103. 2007 Archaeological Impact Assessment Proposed Industrial Development On Portions 136, 39 And 59 Of The Farm Lydenburg 31 Jt, Thaba Chweu, Mpumalanga

104. 2007 Archaeological Impact Assessment Proposed Platinum Mining On Portions Of The Farms Ledig 909jq & Mimosa 81 Jq Archaeological Impact Assessment, North West Province
105. 2007 Archaeological Impact Assessment Princess 200 Agricultural Holdings
106. 2008 Archaeological Impact Assessment Daggafontein Extension 6, Portion 107 2008 Archaeological Impact Assessment for Of The Farm Daggafontein 125 Ir, Springs, Gauteng Province
107. 2008 Archaeological Impact Assessment Proposed Township Development On Portion 30 Of The Farm Modderfontein 76 Ir, Daveyton, Gauteng Province
108. 2008 Archaeological Impact Assessment Proposed Bird & Game Hide at the Roodeplaat Nature reserve, Pretoria, Gauteng.
109. 2008 Archaeological Impact Assessment of a Portion Of The Remainder Of Portion 29 Of The Farm Vaalwater 137kr, Vaalwater, Limpopo Province
110. 2008 Archaeological Impact Assessment Willow Park Manor Extension 58 (Holdings 78 Willow Glen A.H), Pretoria, Gauteng Province
111. 2008 Archaeological Impact Assessment Annlin Extension 131, Holding 124 Wonderboom A.H Extension 1, Pretoria, Gauteng Province
112. 2008 Archaeological Impact Assessment Noordwyk Extension 92, Holding 114
113. 2008 Archaeological Impact Assessment for Erand A.H, Midrand, Gauteng Province
114. 2008 Archaeological Impact Assessment Proposed New Residential Estate on Portion 3 of the Farm Lepelkop 2 and On the Farm Lombardsville 957; Oranjeville District, Free-State Province.
115. 2008 Archaeological Impact Assessment Sluice Gate Upgrade at the Marrievale Nature Reserve, Nigel, Gauteng.
116. 2008 Archaeological Impact Assessment Link Northern Waterline Project At The Suikerbosrand Nature Reserve
117. 2008 Archaeological Impact Assessment Andeon Extension 22 (Holdings 69 & 72 Andeon A.H), Pretoria, Gauteng Province
118. 2008 Archaeological Impact Assessment Andeon Extension 23

- Holdings 149 Andeon A.H, Pretoria, Gauteng Province
119. 2008 Archaeological Impact Assessment Eldorette Extension 47 On Portion 1 Of Holding 57 Heatherdale A.H, Pretoria, Gauteng Province
 120. 2008 Archaeological Impact Assessment Montana Park Extension 150, Holding 67 & 68 Montana A.H, Pretoria, Gauteng Province
 121. 2008 Archaeological Impact Assessment Pierre Van Ryneveld Storage Park, Portion 48 Of The Farm Kirkness 622 Jr, Pretoria, Gauteng Province
 122. 2008 Archaeological Impact Assessment Proposed Development On Part Of Portion 23, Portion 69 And The Remainder Of Portions 22 And 36 Of The Farm Klipfontein 12ir., Ekurhuleni, Gauteng Province
 123. 2008 Archaeological Impact Assessment Eldorette Extension 38 On Portion 1 Of Holding 62 Winterneest Agricultural Holdings,
 124. 2008 Archaeological Impact Assessment Akasia Pretoria North, Gauteng Province..
 125. 2008 Archaeological Impact Assessment On Portion 181 Of The Farm Ruimsig 265 Iq, Roodepoort, Gauteng Province
 126. 2008 Archaeological Impact Assessment Proposed Industrial Development On Portion 159 Of The Farm Doornkloof 391 Jr, Irene, Pretoria, Gauteng Province
 127. 2008 Archaeological Impact Assessment Proposed Industrial Development On Portion 159 Of The Farm Doornkloof 391 Jr, Irene, Pretoria, Gauteng Province
 128. 2008 Archaeological Impact Assessment On Remainder Of The Farm Hatherley 311 Jr, Mamelodi, Gauteng Province.
 129. 2008 Archaeological Impact Assessment Application For Mining Permits For The Arup Transnet Nmpp Alliance Borrow-Pits (5), Gauteng
 130. 2008 Archaeological Impact Assessment On Portion 16 Of The Farm Noodhulp 492 Kr, Warmbaths, Limpopo Province.
 131. 2008 Archaeological Impact Assessment On Remainder Of Portion 9 Of The Farm Onverwacht 503 Lq, Lephelale, Limpopo Province
 132. 2008 Archaeological Impact Assessment Application For Mining Permits For The Arup Transnet Nmpp Alliance Borrow-Pits(2), Gauteng

133. 2008 Archaeological Impact Assessment On The Remaining Extend Of The Farm Wilgespruit 190 Iq, Honeydew, Gauteng Province
134. 2008 Archaeological Impact Assessment On The Remaining Extend Of Portion 185 Of The Farm Olievenhoutpoort 196 Iq, North Riding, Gauteng Province
135. 2008 Archaeological Impact Assessment On Portion Of Portion 20 Of The Farm Van Wyks Restant 182 Iq, Muldersdrift, Gauteng Province
136. 2008 Archaeological Impact Assessment On Portions 78 And The Remainderof Portion 39, Of The Farm Elandsvlei 249 Iq, Randfontein, Gauteng Province
137. 2008 Archaeological Impact Assessment Subdivision 6 And 10 Of The Farm Erina 121, Sasolburg, Free-State Province.
138. 2008 Archaeological Impact Assessment on a Portion of the remainder of the farm Hatherley 311 JR, Mamelodi, Gauteng Province.
139. 2008 Archaeological Impact Assessment on ptn 5 and the remainder of ptn 6 of the farm Witbos 409 JR, Johannesburg, Gauteng.
140. 2008 Archaeological Impact Assessment on the remainder of ptn 7 of the farm Modderfontein East 72 IQ, Benoni, Gauteng Province.
141. 2008 Archaeological Impact Assessment on ptn 315 and remaining extend of ptn 29 of the farm Rietfontein 189 IQ, Muldersdrift, Gauteng.
142. 2008 Archaeological Impact Assessment on the remainder of the farm Wentzelrust 223 JR, Shoshanguve, Gauteng
143. 2008 Archaeological Impact Assessment for the application for mining permits for the ARUP Transnet NMPP Alliance Borrow Pits.
144. 2008 Archaeological Impact Assessment on ptn 16 of the farm Modderffontein 76 IR, Gauteng , Benoni.
145. 2008 Archaeological Impact Assessment for the proposed Greengate Ext 38 on the farm Rietfontein 189 IQ, Muldersdrift, Gauteng
146. 2008 Archaeological Impact Assessment for the Mamelodi – Hatherley Power Line, Mamelodi, Gauteng Province.
147. 2008 Archaeological Impact Assessment for Zandspruit Ext 63, Zandspruit, Gauteng Province
148. 2008 Archaeological Impact Assessment for Zandspruit Ext 62, Zandspruit, Gauteng Province

149. 2008 Archaeological Impact Assessment for the upgrade of the Golelle Border Post, KZN
150. 2008 Archaeological Impact Assessment for the proposed Golelle Housing Project, KZN
151. 2008 Archaeological Impact Assessment for the proposed Allemanshome township development, Villiers, Free-State Province
152. 2009 Archaeological Impact Assessment for the Booyendal Platinum mine, Steelpoort, Mpumalanga Province.
153. 2009 Archaeological Impact Assessment for Steelpoort Extension 20, Steelpoort, Mpumalanga Province
154. 2009 Archaeological Impact Assessment on ptn 4& 7 of the farm Schaapplaats 524 LQ, Ellisras, Limpopo Province
155. 2009 Archaeological Impact Assessment for Tubatse Ext P, Steelpoort, Mpumalanga Province.
156. 2009 Archaeological Impact Assessment Medupi – Spitskop Power Line, Limpopo Province
157. 2009 Archaeological Impact Assessment for the proposed Brits Fero Chrome Smelter, Brits, North West Province.
158. 2009 Archaeological Impact Assessment on a portion of the Boschdal 309 JQ, Rustenburg, North West Province
159. 2009 Archaeological Impact Assessment for the proposed Thlabane health Centre, Rustenburg, North West Province
160. 2009 Archaeological Impact Assessment for the proposed Chroniment Mine, Amandelbult, Limpopo Province.
161. 2009 Archaeological Impact Assessment for the proposed Burnstone Gold mine, Balfour, Mpumalanga
162. 2009 Archaeological Impact Assessment for the proposed Coal mine on the farm Leeufontein 48 IS, Ermelo, Mpumalanga
163. 2009 Archaeological Impact Assessment for the proposed Reyno Ridge Ext 29, Witbank, Mpumalanga Province.
164. 2009 Archaeological Impact Assessment for the proposed Mapleton Ext 15, Vosloorus, Gauteng Province.
165. 2009 Archaeological Impact Assessment for the proposed water pipeline for the Booyendal Platinum Mine, Steelpoort, Mpumalanga Province.

166. 2009 Archaeological Impact Assessment for the application for mining permits for the 19 ARUP Transnet NMPP Alliance Borrow Pits
167. 2009 Archaeological Impact Assessment of Helderwyk Township development on the farm Witpoortjie 117 IR, Brakpan, Gauteng
168. 2009 Archaeological Impact Assessment for the proposed township development on the farm Bochbank 12, Sasolburg, Free-State Province.
169. 2009 Archaeological Impact Assessment for the proposed Township Development on the farm Helena 1653, Swinburne, Free State Province
170. 2009 Archaeological Impact Assessment for a Eco Resort on the farm Ongegun 709, Vredefort, Free-State Province
171. 2009 Archaeological Impact Assessment on a portion of the farm Wonderfontein 350, Sasolburg, Free-State Province.
172. 2009 Archaeological Impact Assessment Amendment To The Existing Report For The Grootvlei-Balfour Powerline, Burnstone Gold Mine Project, Balfour, Mpumalanga
173. 2010 Archaeological Impact Assessment for the proposed Township Development on the farm Luipaardsvlei 243 IQ, Krugersdorp West, Gauteng.
174. 2010 Archaeological Impact Assessment for the Klipfontein Logisticks Park on the farm Klipfontein 12, Midrand , Gauteng Province
175. 2010 Archaeological Impact Assessment for the proposed Montrose township development, Sasolburg, Free-State Province.
176. 2010 Archaeological Impact Assessment for the Chronimet Underground Mine, Opencast mine, process plant, Amandelbult, Limpopo Province.
177. 2010 Archaeological Impact Assessment as part of the development framework plan for Egoli Gas on portion 409 of the farm Braamfontein 53, Johannesburg, Gauteng
178. 2010 Archaeological Impact Assessment for a residential development on a portion of the farm Doornhoek 1000, District Parys, Free State Province.
179. 2010 Archaeological Impact Assessment For The Proposed Onderstepoort Ext 25 Mixed Use Development On Portion 116 Of The Farm De Onderstepoort 300 Jr, Pretoria, Gauteng Province
180. 2010 Heritage Risk Assessment For The Possible Future Development Of Durban Roodepoort Deep Gold Mine Village, Roodepoort, Gauteng Province

181. 2010 Assessment of possible grave site for Kendal Colliery, Mpumalanga under directorship of A. van Vollenhoven.
182. 2010 Assessment of the feasibility of the possible relocation of the Mabopane cemetery, Pretoria, Gauteng Province
183. 2010 Archaeological Impact Assessment for the Simmerpan Strengthening Project - Powerlines And New Substation, Johannesburg, Gauteng Province
184. 2010 Archaeological And Palaeontological Impact Assessment For The Updated EMP for Trans Hex Mining Operations, Richtersveld, Northern Cape
185. 2010 Archaeological Impact Assessment for the proposed Commercial Development On Portion 409 Of The Farm Roodepoort 237 IQ, Roodepoort, Gauteng Province
186. 2010 Archaeological Impact Assessment for the proposed Highlands Township development on Stands 3,4,5,6,7 and 1 of 8, Highlands, Johannesburg, Gauteng Province
187. 2010 Archaeological Impact Assessment On Holding 3 And 4 Oaktree Agricultural Holdings, Krugersdorp, Gauteng Province
188. 2010 Archaeological Impact Assessment for Sasol's project Mafuta, Lephalale, Limpopo Province. Under Directorship of T.N Huffman
189. 2010 Archaeological Impact Assessment For The The Proposed Sedaven Development On Portions 8 & 25 Of The Farm Boschoek 385 IR, Heidelberg, Gauteng. Under Directorship Of A. Pelser.
190. 2011 Archaeology and Cultural Heritage Report for the proposed Estima Coal Mine, Mozambique
191. 2011 Archaeological Impact Assessment Industrial Township Development On A Portion Of Portion 136 Of The Farm Luipaardsvlei 247 IQ, Krugersdorp West, Ekurhuleni, Gauteng Province
192. 2011 Archaeological Impact Assessment. Proposed Sekampaneng Bulkwater Pipeline, Sekampaneng Township, Hammanskraal, Gauteng Province
193. 2011 Archaeological and Cultural Heritage Statement Report for the Proposed Mkuju River Uranium Project, Tanzania
194. 2011 Archaeological And Cultural Land Assessment For The Lethabo Power Station, On The Farm Lethabo Power Station 1814, Vereeniging, Free State Province

195. 2011 Archaeological Impact Assessment for Todal Mining, Bokai Platinum Project, Shurugwi Rural District, Gweru, Zimbabwe
196. 2011 Archaeological And Heritage Statement For The Proposed Lg5 Opencast Mining Area, On Portions Of The Farm Ruighoek 169 JP, Pilanesberg, North West Province
197. 2011 Archaeological Impact Assessment Proposed Magalies Crossing, On A Portion Of The Farm Zandfontein 447 IQ Hartbeespoort Dam, North West Province
198. 2011 Archaeological Impact Assessment Proposed Groblersdal Ext 34, Groblersdal, Limpopo Province
199. 2011 Archaeological Impact Assessment Proposed Vaal River Casino, On A Part Of Portion 9 Of The Farm Rietfontein 251 Sasolburg, Free State Province
200. 2011 Archaeological Impact Assessment Proposed Marula 132/11kv Substation On A Remainder Of Portion 2 Of The Farm Hartebeestfontein 258 IQ, Randfontein, Gauteng Province
201. 2011 Archaeological Impact Assessment Proposed Cot Wildebees 400/132 Kv Substation And Loop In Lines, On Portions Of The Farms Pienaarspoort 338 & 339 JR And Hatherley 331 JR, Gauteng Province

Phase II Cultural Resource Management Projects: Archaeological Excavations

1. 2001 Field director for historical rescue mitigation at Ifafi Rustenburg area, under directorship of Dr A. C. van Vollenhoven
2. 2001 Field director for Iron Age mitigation at Meropa Casino Polokwane, principal investigator F. Roodt
3. 2002 Field director for Iron Age mitigation at Burgersfort housing project EXT. 4, principle investigator F. Roodt
4. 2002 Field director r for Iron Age mitigation at Polokwane bulk water supply, principle investigator F. Roodt
5. 2003 Field supervisor at Mapungubwe (World Heritage Site) Archaeological Rehabilitation project
6. 2005 Field Director for Iron Age mitigation at Gardner Ross Country and Golf Estate, principle investigator J. Booyens

7. 2005 Field Director Phase 2 mitigation of archaeological terrain. Hammanskraal West Proper. Ditsala Construction. Hammanskraal, Gauteng Province. principle investigator J. Booyens
8. 2005 Field Director for Iron Age mitigation for chrome Mining by Herculio Ferrochrome on the farm Bokfontein 448 JQ, North West Province, principle investigator J. Booyens
9. 2006 Field Director phase 2 documentation for The Heads Trust, Heritage Assessment, and monitoring for Lydenburg Ext 38 housing development, Lydenburg, Mpumalanga, principle investigator Prof. T. Huffman
10. 2007 Field Director phase 2 documentation for Sterkspruit housing development, Lydenburg, Mpumalanga, principle investigator Prof. T. Huffman
11. 2007 Field Director Early Iron Age mitigation at Apel extension 1 principle investigator A. Pelsler
12. 2008 Field Director Middle Iron Age Mitigation For Wesizwe Platinum mining, principle investigator Prof. T. Huffman
13. 2008 Field Director Phase 2 documentation of Historical Fort Howard, Lydenburg for Thaba Tshewu Municipality.
14. 2008 Field Director Phase 2 documentation of Khoni Iron Age Settlement Lydenburg, for Thaba Tshewu Municipality.
15. 2009 Field Director Phase 2 documentation of historical and Late Iron Age sites impacted on by the proposed Wentzelrust industrial development, Shoshanguve, Gauteng.
16. 2010 Field Director for the Archaeological Mitigation For Booyendal Platinum Mine, Steelpoort, Limpopo Province. Principle investigator Prof. T. Huffman
17. 2010 Monitoring of heritage sites affected by the ARUP Transnet Multipurpose Pipeline under directorship of Gavin Anderson.
18. 2010 Field Director for the Phase 2 mapping of a late Iron Age site located on the farm Kameelbult, Zeerust, North West Province. Under directorship of Prof T. Huffman.
19. 2011 Field Director for the Phase 2 surface sampling of Stone Age sites effected by the Medupi – Spitskop Power Line, Limpopo Province

Grave Relocation Projects:

1. 2000: Part of excavation team of the relocation of 47 graves affected by mining activities at Maroelabult, Brits, North-West Province, for Barplats, Under W.C Nienaber in collaboration with Prof M Steyn (Department of Anatomy, University of Pretoria).
2. 2004: Part of excavation team of the exhumation and re-interment of 10 graves affected by construction at Hammanskraal West Proper, Hammanskraal, Gauteng Province, for Ditsala Construction, Under W.C Nienaber in collaboration with P Birkholtz (Professional Grave Solutions).
3. .2004 Rescue excavations and re-interment of 31 graves at Khutala Colliery affected by mining activities, Mpumalanga. Principle Investigator A. Pelser
4. 2005 Rescue excavation re-interment of 40 graves at Middelburg Mines Mpumalanga. Principle Investigator A. Pelser
5. 2006 -2007 Rescue excavation re-interment of 253 graves at Douglas Colliery Mpumalanga. Principle Investigator A. Pelser
6. 2007 Excavation of 18 structures that were presumed to be graves in the area affected by the Umcebo Mining, Doornrug Colliery, Witbank Mpumalanga. Principle Investigator A. Pelser
7. 2007 Rescue excavation re-interment of 52 graves at Goedehoop Colliery Mpumalanga. Principle Investigator A. Pelser
8. 2008 Rescue excavation and re-interment of 17 graves at Goedgevonden Colliery, Ogies Mpumalanga. Principle Investigator A. Pelser
9. 2008 Rescue excavation and re-interment of 18 graves at Norwesco Colliery Delmas Mpumalanga. Principle Investigator A. Pelser
- 10.2008 Rescue excavation and re-interment of 14 graves for the Rest Residential development, Nelspruit Mpumalanga. Principle Investigator A. Pelser
- 11.2008 Rescue excavation and re-interment of 3 Late Iron Age Burials at Klipgat Police Station, Ga-Rankuwa, Gauteng. Principle Investigator A. Pelser.
- 12.2008 Rescue excavation and re-interment of 103 graves for Mafube Collieries, Middelburg Mpumalanga. Principle Investigator A. Pelser
- 13.2008 Rescue excavation and re-interment of 23 graves for the Goedgevonden Collieries, Ogies Mpumalanga. Principle Investigator A. Pelser
- 14.2009 Rescue excavation and re-interment of 102 graves for Exxaro Coal Mine ,

Belfast, Mpumalanga. Principle Investigator A. Pelsler.

- 15.2010 Rescue excavation of a Late Iron Age grave at Erasmus Castle, Pretoria, Gauteng Province
- 16.2010 Project manager for the rescue excavation and re-interment of 10 graves for Exxaro New Clydesdale Collieries, Witbank Mpumalanga. Principle Investigator C. Nienaber
- 17.2011 Rescue excavation and re-interment of 6 graves for Samancor Eastern Chrome mines, Sylvania Lannex Mine, Steelpoort, Limpopo Province.
- 18.2011 Rescue Excavation And Re-Interment Of 33 Graves For The Eden Park West And Eden Park Ext 1 development, Ekurhuleni, Gauteng Province

PUBLICATIONS AND CONFERENCE PRESENTATIONS:

- A Culture Historical Interpretation, Aimed at Site Visitors, of the Exposed Eastern Profile of K8 on the Southern terrace at Mapungubwe.
 - J van der Walt, A Meyer, WC Nienaber
 - Poster presented at Faculty day, Faculty of Medicine University of Pretoria 2003
- 'n Reddingsondersoek na Anglo-Boereoorlog-ammunisie, gevind by Ifafi, Noordwes-Provinsie. **South-African Journal for Cultural History** 16(1) June 2002, with A. van Vollenhoven as co-writer.
- Fieldwork Report: Mapungubwe Stabilization Project.
 - WC Nienaber, M Hutten, S Gaigher, J van der Walt
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2004
- A War Uncovered: Human Remains from Thabantšho Hill (South Africa), 10 May 1864.
 - M. Steyn, WS Boshoff, WC Nienaber, J van der Walt
 - Paper read at the 12th Congress of the Pan-African Archaeological Association for Prehistory and Related Studies 2005
- Field Report on the mitigation measures conducted on the farm Bokfontein, Brits, North West Province .
 - J van der Walt, P Birkholtz, W. Fourie
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2007
- Field report on the mitigation measures employed at Early Farmer sites threatened by development in the Greater Sekhukhune area, Limpopo Province. J van der Walt
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2008

- Ceramic analysis of an Early Iron Age Site with vitrified dung, Limpopo Province South Africa.
 - J van der Walt. Poster presented at SAFA, Frankfurt Germany 2008
- Bantu Speaker Rock Engravings in the Schoemanskloof Valley, Lydenburg District, Mpumalanga (*In Prep*)
 - J van der Walt and J.P Celliers
- Sterkspruit: Micro-layout of late Iron Age stone walling, Lydenburg, Mpumalanga. W. Fourie and J van der Walt. A Poster presented at the Southern African Association of Archaeologists Biennial Conference 2011
- Detailed mapping of LIA stone-walled settlements' in Lydenburg, Mpumalanga. J van der Walt and J.P Celliers
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2011
- Bantu-Speaker Rock engravings in the Schoemanskloof Valley, Lydenburg District, Mpumalanga. J.P Celliers and J van der Walt
 - Paper read at the Southern African Association of Archaeologists Biennial Conference 2011

REFERENCES:

1. Dr Marlize Lombard Senior Lecturer, Department of
Anthropology and Development Studies, University of Johannesburg, South
Africa

Tel: +2783 757 5675

E-mail: mlombard@uj.ac.za

2. Prof TN Huffman
Department of Archaeology
School of Geography, Archaeology and
Environmental Studies
University of the Witwatersrand

Tel: (011) 717 6040

Curriculum Vitae

L I E S L D U P R E E Z

Postal Address:	8 Veronica street Del Judor Proper Witbank 1034
------------------------	--

Residential Address:	44 Charles street Brooklyn 0181 Pretoria
-----------------------------	---

Contact Number:	+277 929 022 21
------------------------	-----------------

Email address:	<u>dupreezliesl@gmail.com</u>
-----------------------	---

1. PERSONAL INFORMATION

Name:	Liesl
--------------	-------

Surname:	Du Preez
-----------------	----------

ID Number:	8510080016082
-------------------	---------------

Date of Birth:	8 October 1985
-----------------------	----------------

Sex:	Female
Nationality:	South-African
Marital Status:	Single
Language Competency:	Afrikaans- Excellent English- Excellent French- Good
Driving Permit:	Code B
Criminal Offenses:	None
Health:	Excellent

2. Educational Qualifications

Last School Attended:	Hoërskool Reynopark Witbank (1999-2003)
Highest Standard Passed:	Grade 12

Subjects:

Mathematics (HG)
 Science (HG)
 *Hotel Management (SG)
 *Biology (HG)
 *English (HG)
 Afrikaans (HG)

(* Passed with distinction)

Extra-mural activities:	<ol style="list-style-type: none"> 1. Participation in the ATKV Arts Festival: Creative Writing, Poetry, Group Drama and Music 2. Classical Guitar (Level 4) 3. Long-distance running
--------------------------------	--

3. Higher Education

First Aid Training: <i>2006</i>	Level 1 (ANRO- Pre Hospital Care Services)
---	---

Tourist Guide Training: <i>Apr. 2006 – Aug. 2006</i>	Registered as a Gauteng Provincial Tourist Guide (University of South Africa)
--	--

Degrees Obtained:	<ol style="list-style-type: none"> 1. BHCS (Specializing in Heritage and Cultural Tourism, History and French), in 2004 - 2006 (University of Pretoria) 2. *BHCS Honores (Specializing in Heritage and Cultural Tourism), in 2007
--------------------------	---

(* Passed with distinction)

4. Additional Courses:

Attended a Q-Photo Photographic Workshop at the University of Pretoria (2006).

5. Employment History

2005 and 2006:	Studentwise (General Employee and occasionally Team Leader): Part-time student work that included product distribution and marketing
June and December 2006:	Conference Official for the Department of Historical and Heritage Studies at the University of Pretoria
February to August 2007:	History Tutor for first year students at the Department of Historical and Heritage Studies at the University of Pretoria
October 2007 to April 2008:	English Language Assistant for French high school students at Lycée Louis Armand, Eaubonne, France
July to December 2008:	Assistant at the Archives of the University of Pretoria
August 2008 up until the present:	Partner in a Closed Corporation that specializes in historical research, namely Past Matters Historical and Heritage Research Services

6. Present Position

I am currently a student at the University of Pretoria, working on a research proposal for a MA in History. I am also working as a partner in the Closed Corporation, Past Matters Historical and Heritage Research Services.

7. References:

Prof K. L. Harris Director of University of Pretoria Archive UNIVERSITY OF PRETORIA	Tel: +271 242 026 65 Email: karin.harris@up.ac.za
Prof J. S. Bergh Head of Department of Historical and Heritage Studies UNIVERSITY OF PRETORIA	Tel: +271 242 023 23 Email: thariza.vanrensburg@up.ac.za
Ms Claire Bertrand Head of the English Department at Lycée Louis Armand (Eaubonne, France)	Phone: +331 396 094 51 Email: cl.bertrand@tele2.fr
Mr Cornelis H. Muller Partner in the CC Past Matters	Phone: +278 234 445 23 Email: cornelismuller@gmail.com

Dr. Pieter Pretorius

Pr Eng, MITE, MCIT, MSAICE



Personal Particulars:

Name: Pieter Pretorius
Date and Place of Birth: 25 February 1971, Mokopane, South Africa
Places of Tertiary Education: University of Pretoria 1989 – 1994
 Queensland University of Technology, Brisbane, Australia, 2001

Qualifications:

- B.Eng (Civil)(Cum Laude), University of Pretoria, South Africa, 1992
- B.Eng (Hons)(Transportation)(Cum Laude), University of Pretoria, South Africa, 1993
- M.Eng (Transportation)(Cum Laude), University of Pretoria, South Africa, 1994
- Ph.D (Engineering), Queensland University of Technology, Brisbane, Australia, 2001

Present Position

Director, ITS (Pty) Ltd, Specialist Transportation Engineer

Employment Record

January 1993 – June 1994 : VIAED Transportation Research Institution, Pretoria, Research Associate.
 July 1994 – May 2001 : V3 Consulting Engineers, Pretoria, South Africa, Head of Transportation Engineering Department.
 June 1995 – To date : Part-time Senior Lecturer, Department of Civil and Biosystems Engineering, University of Pretoria
 June 2001 – To date : Director: ITS Engineers (Pty) Ltd, Pretoria, South Africa.

Professional Affiliations

- Registered Professional Engineer (South Africa – 980205)
- Member of the Institute of Transportation Engineers, Washington, D.C, USA (Member No 27755)
- Member of the Chartered Institute of Transportation, London, UK (Member No 45395)
- Member of the South African Institution of Civil Engineering (Member No 090556)

Publications/Professional Activities / Awards

- P. Pretorius, Y. Mashilwane, I. Udoyen, S. Maréchal, *Soccer World Cup 2010: Lessons Learnt from the Johannesburg Park & Ride System*, SATC 2011.
- G. Botha, H.S Joubert, P. Pretorius, *The New South African Road Traffic Signs Manual*, IMIESA Magazine, 1993
- P. Pretorius, S.C van As, *“Curb turn radii at urban intersections*, Annual Transportation Convention, Vol. 3A, Pretoria, 1994.
- J.C de Vries, P. Pretorius & P.G.W Oosthuizen, *Vehicle Queue Storage Guidelines for Accesses to Private Developments in Centurion*, South African Transport Conference, July 2001, CSIR, Pretoria
- Ph.D Seminar: Queensland University of Technology, Brisbane, 2001, *Delay in Networks of Signalised Intersections*.
- Member of the SAICE Transportation Engineering Division Committee, 2000 – date
- Chair: SAICE Transportation Engineering Division Committee, 2010 & 2011.
- Vice-Chairman: SAICE Transportation Engineering Division Committee 2008 & 2009.
- D.W de Vos Bronze Medal for final year results, University of Pretoria, 1992.
- Co-author of the Best Paper by a Young Engineer, South African Transport Conference, 2001, Pretoria.
- Supervisor for a number of undergraduate thesis reports at the University of Pretoria.
- Currently co-supervisor for a Masters degree project report at the University of Pretoria.
- Member of the Organising Committee and Convenor of the Traffic Engineering Session at the South African Transport Conference, 2004 to date.

Brief Resume:

Specialist Transportation and Traffic Engineer, holds a Ph.D in Engineering from the Queensland University of Technology (QUT), Brisbane, Australia. He also completed a Masters degree in Transportation Engineering (Cum Laude) with the University of Pretoria. Pieter Pretorius was with V3 Consulting Engineers in Pretoria from 1994 to 2001 where he headed the Transportation and Traffic Engineering Departments. He has been extensively involved in Road Capacity and Economic Evaluations, including software packages such as SATURN, PARAMICS, CORSIM and the HIGHWAY CAPACITY SOFTWARE. He has been a part-time senior lecturer with the Department of Civil and Biosystems Engineering at the University of Pretoria for a number of years and is also a member of the Institute of Transportation Engineers. Pieter is also a member of the Transportation Division Committee of SAICE. He joined ITS in 2001.

Project Experience

Traffic Impact and Analyses

Various Traffic Impact Studies which has bearing on the Scope of Work

IPP Power Station Grootgebluk Coal Mine Lephalale
 Vametco EMR Amendment
 Steynol Project Springs Gauteng
 Exxaro Matla Colliery Specialist Studies, Mpumalanga
 Booyensdal Contractors Camp, Northam Platinum, Steelpoort, Limpopo Province
 Golden Valley Project, Baseline Traffic Impact Assessment, Magaliesburg Gauteng
 Sasol Fine Ash Dam, Secunda Mpumalanga
 Witkop Exploration MRA, Slatercoal, Viljoenskroon
 Wits Gold Mine, Greenfield Gold Mining Development near Virginia, Free State
 Rietvlei Mine, North East of Middelburg, Mpumalanga

The Mall of Africa (250 000 m² retail development) Traffic Impact Analyses was conducted in the Midrand, Johannesburg area, with specific consideration to the motorway network serving the development. The trip generation of the development was in excess of 10 000 vehicle trips during the peak hour. Various smaller scale impact studies were performed, such as the Casino application in the Victoria Lake area, Germiston, Gauteng and the Inanda Club development in Sandton. Various filling station applications, N3 off-ramp to Rand Airport, Parking study : Gezina shopping centre; Waverley Shopping centre, Bloemfontein. Super U development traffic investigation in Mauritius.

Project Leader: Rustenburg ITP & Roads Master Plan

DOT PTIS funding applications were also prepared as part of the ITP Project. Rustenburg IRPTN as formulated in this project and 2010 investigations was also performed.

Project Leader: Menlyn Transportation Study

A comprehensive Transportation plan was developed for Menlyn for the City of Tshwane. This plan entailed all aspects such as capacity, NMT, Public Transport, Roads masterplanning and other elements. Traffic modelling was an essential part of the study.

Project Leader: Hatfield Transportation Study

A comprehensive Transportation plan was developed for Hatfield for the City of Tshwane. This plan entailed all aspects such as capacity, NMT, Public Transport, Roads masterplanning and other elements. Traffic modelling was an essential part of the study.

Project Leader: Brooklyn Transportation Study

A comprehensive Transportation plan was developed for Brooklyn for the City of Tshwane. This plan entailed all aspects such as capacity, NMT, Public Transport, Roads masterplanning and other elements. Traffic modelling was an essential part of the study.

2009 FIFA Confederations Cup

All the various aspects of transportation associated with this event was addressed, including demand, supply, traffic management plans, parking, park and ride sites, day to day transportation management and others. Dr. Pretorius was the Project Leader for the park and ride facilities at all 5 matches played in Johannesburg during 14 – 28 June 2009.

Bloemfontein 2010 Transport Plan / Rustenburg 2010 Transport Plan

Dr. Pretorius is the Technical Project Leader for both these 2010 transportation planning projects. All the various aspects of the transportation associated with the 2010 event is addressed as part of these projects, including demand, supply, traffic management plans, parking, park and ride sites, day to day transportation management and others.

Traffic Information Systems (TIS) & Road Safety Management System (RSMS)

*Northern Cape
 Traffic Counting
 and Accident
 Management*

Currently providing strategic input to the Traffic Counting and Accident Management System for the Northern Cape Province. Proposals included the recommendation of 48 hour counts, rather than 7 day counts on some of the lower volume roads to improve cost effectiveness of the programme. Stratification and growth factor recommendations were made, as well as the introduction of additional permanent counting stations. The provision of value for money in the local context is an important element of the study.

Public & Rural Transport

Integrated bicycle public transport project for South African National Department of Transport; Design of Botlhaba bus contracts; Design of Thari and Gare bus contracts for Northwest Department of Transport; Rural scholar bicycle pilot projects in Weenen & Izingolweni, Kwazulu Natal; Bicycle Masterplan for Tshwane : Pretoria unit; Representative on Gauteng Department of Transport bus passenger contracts monitoring in Atteridgeville. Kwazulu Natal bus monitoring contracts in Pietermaritzburg, Howick and Margate / Port Shepstone

Gauteng Freeway Improvement Scheme: HOV / Integration Study:

The improvement of various freeways in Gauteng is currently in the design phase. SANRAL appointed a consortium lead by Dr Pretorius to investigate the various options associated with the implementation of the HOV network on the freeways. Integration issues with BRT systems, Gautrain, Park and Ride sites and other elements are to be investigated in the project. The project is currently in process.

HOV & Park and Ride Investigations:

During October 2006, a High Occupancy Vehicle Lane was piloted on the M1 and N1 in the Johannesburg / Tshwane region. One of the existing lanes on the freeway was earmarked for High Occupancy Vehicles (3+). The road signage, implementation and before and after study investigations was conducted. A number of valuable lessons were learnt in the process, which is expected to be important in the future implementation of High Occupancy Vehicle lanes. Also, three Park and Ride sites were identified in the Tshwane area, road signs were designed and these were monitored during the specific week of the pilot project.

Travel Demand Management

Project Leader on the formulation of a Travel Demand Management (TDM) Strategy for the Sunninghill and Braamfontein areas, Johannesburg. The second phase of the project is currently being finalized after Park-and-Ride and flexible work schedules were piloted. A website was developed to facilitate ride matching after input was obtained from various role players in the areas under consideration

Traffic Modelling

Project Leader: PARAMICS (microscopic traffic modelling):

SANRAL Ben Schoeman, ITS Pilot Project: His involvement in the SANRAL ITS Pilot Project include the Modelling, Feasibility Study, Cost/Benefit analyses, Ramp Metering Design, VMS Strategy, Highway Advisory Radio, SMS, Architecture and others. The implementation of the Intelligent Transportation Systems project on the Ben Schoeman freeway, the N14 and the M1 was modelled recently with the Paramatics software. The traffic model covered a total of 15 interchanges which included 2 systems interchanges. A number of measures were evaluated such as ramp metering, variable message signs, dynamic speed control and others.

Bloemfontein CBD: A sub-area of the Bloemfontein CBD was modelled on Paramics, with the objective of evaluating the impact of the implementation of a possible one-way street in the central area. Factors such as on-street parking were modelled in detail with the microscopic simulation software.

Sandton CBD: Regional traffic model of Sandton CBD, Johannesburg. Study area of 40 km² with 99 traffic zones and 90 000 AM and PM peak period trips. Mixed land uses consisted of residential, commercial, office and industrial developments. The traffic model was used to develop a phased road upgrading master plan for the area in order to accommodate the future traffic demand in the area.

Brooklyn Node, Pretoria: Traffic model for the Brooklyn commercial node in Pretoria. Conversion of an existing SATURN model into a Paramics model. 12 km² study area with 13 000 AM peak hour trips and 12 000 PM peak hour trips. The model was used to develop a cost apportionment model for different developments in the area as well as the phased road upgrading required to accommodate the proposed development.

EB Cloete Systems interchange, Durban: A section of the N3 route near Durban, South Africa was modelled, including 3 accesses and one systems interchange. The model was used to evaluate the impact of a proposed new interchange to provide access to the national road network for a major future development, envisaged to provide 50 000 jobs and housing for 200 000 people.

Costco Retail Development, Canada : The impact of a major retail development, situated within an interchange on Highway 1 in Langley, British Columbia, Canada was modelled. Recommendations were made to eliminate problematic weaving manoeuvres.

Project Leader: SATURN traffic simulation (macroscopic traffic modelling):

Kathlehong: Regional traffic model with 79 traffic zones, 105 km² study area.

Centurion: Traffic model to be used for the evaluation of a phased future road network in a fast developing area (study area of 80 km²). The model has 85 traffic zones, with \pm 35 000 peak period trips during the base year. Future development scenario has approximately 70 000 peak hour trips. Mixed-use development, including residential, commercial, office and industrial developments.

Germiston: Central Business area of the Germiston CBD. The impact of a high density housing development was evaluated.

Magalies Master Plan, Pretoria: Regional traffic model with a study area of 65 km² developed to evaluate various road network

options in the area. A result of the study was the revision of the alignment of the major arterial route, K8.

Project Leader: TRACKS traffic simulation (macroscopic traffic modelling):

Centurion: The New Zealand traffic simulation software package, TRACKS, is currently being applied in the Centurion area. The application of the model is to determine the traffic demand and required road infrastructure in an ultimate land use development scenario.

Mangaung: The larger Mangaung road network was modelled with the TRACKS software. The closure of a road, which currently divides the Central University of Technology campus in two, was evaluated. The Traffic model as a total of 200 traffic zones, 11 external zones and 189 internal zones.

Ballito / Salt Rock: A TRACKS model was developed recently for the Ballito / Salt Rock area. Rapid development in the area lead to an increased demand on the status quo road network and additional road capacity needs were evaluated in the area.

A number of smaller scale traffic modelling studies were completed such as corridor traffic models (PARAMICS and TSIS CORSIM) used for road planning and design. Traffic conditions in the Lusaka CBD area in Zambia, Africa was evaluated as part of the Integrated Development Plan for Lusaka. . A calibration study was conducted for the previous Pretoria City Council (now Tshwane) to determine South African calibration parameters for the Australian traffic engineering software package, SIDRA.

Gautrain Project

Provided reports on the following temporary traffic accommodation schemes:

Proposed temporary closure of the northbound carriageway of Rivonia Rd, the temporary closure of Wolmarans and Smit Streets at Park station, proposed road and park closures for the construction of access and ventilations shafts: Park Station to Marlboro Portal. Proposed temporary closure of sections of both carriageways of Oxford Road. Accommodation of traffic: Analysis of traffic diversions based on 2002 volumes (Rosebank and Sandton Stations); Rosebank station: Issues relating to the station parking garage access configuration; Proposed temporary closure of sections of both carriageways of Oxford Rd between Jellicoe Ave and Baker Str Rosebank etc.

Sandton Station: Initial Works Traffic Management Plan

Traffic signal design and supervision as well as the continuous valuation of traffic conditions in the areas surrounding the Park, Sandton and Rosebank Stations

Public meetings with role players to discuss traffic schemes.

Traffic Planning/ Road Capacity / Economic Evaluations

Northern Cape Traffic Counting and Accident Management Currently providing strategic input to the Traffic Counting and Accident Management System for the Northern Cape Province. Proposals included the recommendation of 48 hour counts, rather than 7 day counts on some of the lower volume roads to improve cost effectiveness of the programme. Stratification and growth factor recommendations were made, as well as the introduction of additional permanent counting stations. The provision of value for money in the local context is an important element of the study.

N1 – Winburg (RSA) Project Leader: Capacity calculations and traffic volume forecast for ± 50 km of the N1 south of Winburg for the proposed rehabilitation of this section of road.

Sekhuphe Airport, Swaziland & access roads HDM 4 analyses, and traffic engineering capacity analyses regarding the access roads and upgrade of roads to serve the new Sekhuphe International Airport in Swaziland. This project was reviewed recently by the Arab Bank for Economic Development in Africa.

N5 – Winburg to Harrismith (RSA) Project Leader: Traffic volume forecasts and Capacity calculations using the Highway Capacity Manual procedures and the economic evaluation for the N5 national road between Winburg and Harrismith (± 225 km) in the Free State Province, South Africa. Included analyses of phased upgrading proposals from the two-lane to multilane road stage, as well as analysis of critical intersections on the route.

MR 122 - Okahao to Opuwo (Namibia) HDM 4 analyses: Involved with the planning of ± 82 km of road between Okahao and Opuwo (Road MR122), which included economic evaluations, evaluation of traffic and origin/destination surveys, volume forecasts and road capacity calculations. Interpretation of HCM 2000 (Highway Capacity Manual) analyses results. Also involved with cross-section and vertical alignment design for the detail design phase of the project.

Gobabis – Grootfontein Link Road (Namibia) HDM 4 analyses: Currently busy with the traffic engineering elements, volume forecasts and input to the economic evaluation of the Gobabis Grootfontein link road. Origin / destination studies will be undertaken, as well as capacity analyses on the relevant sections, if required.

Lindi / Mingoyo / Mbwemkulu East Coast Route (Tanzania) HDM 4 analyses: Capacity analyses for the upgrading of a section of the road from km 245 to 338 (± 93 km). The Highway Capacity Manual procedures were applied and some critical intersections, such as the Mingoyo / Masasi intersection were analysed. A new weighbridge would be constructed at the intersection and the expected traffic operations after implementation of the weighbridge was evaluated.

<i>Maragra / Sabie road (Mozambique)</i>	HDM 4 analyses: Traffic projections for the evaluation of a new link road, which will provide improved access to the sugar cane facilities in this area of Mozambique.
<i>N6 – Queenstown (RSA)</i>	Project Leader: Capacity analyses, including the analyses of climbing lanes on a 21 km section of the N6 near Queenstown in the Eastern Cape. The climbing lane analyses were conducted based on capacity considerations using the HCM, as well as the analyses of speed profiles for different vehicle classes.
<i>N6 - Homeleigh</i>	Project Leader: Evaluation of 22 km of road, including volume forecasts, capacity and climbing lane analyses.
<i>N17 – Kinross to Trichardt (RSA)</i>	Project Leader: Evaluation of a 12 km section of the proposed new N17 between Kinross and Trichardt, including intersection and multilane highway analyses. The analyses were conducted using HCM procedures as well as intersection analysis software such as aaSidra. Origin/destination surveys and analyses to determine the future traffic volumes on the proposed new alignment of the road were included.
<i>N1 – Louis Trichardt / Messina (RSA)</i>	Project Leader: Conducted origin/destination surveys on the section of the N1 national road from north of Pietersburg up to Messina required for toll feasibility studies on this section of road. Included roadside surveys as well as intersection traffic counts.
<i>N1 Hex River Capacity Analyses, Western Cape (RSA)</i>	Project Leader: The N1 near the Hex River in the Western Cape Province was evaluated according to the prescriptions of the 2000 Highway Capacity Manual.
<i>N1 Atterbury Interchange evaluation, Pretoria (RSA)</i>	The capacity upgrade of the Atterbury Interchange in the Pretoria area, South Africa was completed recently. The right-turn movement from the east to the north which was subjected to very high traffic demand was taken out of the interchange by the construction of a quarter loop. The emphasis with the project was on the cost-effective upgrading of the interchange.
<i>EB Cloete Systems Interchange, Durban (RSA)</i>	The viability of a proposed new interchange close to the existing four-level EB Cloete systems interchange in Durban, South Africa was evaluated.
<i>Costco Development Interchange, Highway 1 (Canada)</i>	The impact of a major retail development on the interchange was evaluated for ITS's associate firm in the United States, Kittelson & Associates.

Transport Infrastructure Financing

K8 route, Tshwane financing investigations; Sandton CBD road infrastructure financing needs; Brooklyn area Road Infrastructure Cost Apportionments, Tshwane; Charles Street Corridor Funding Investigations, Tshwane.

Congestion Management

The Gauteng Provincial Government appointed Dr. Pretorius as project leader for the development of a Congestion Management Plan for a number of interchanges under the jurisdiction of the province. The study area is on the Ben Schoeman freeway which links the Pretoria and Johannesburg metropolitan areas.

Roads Design

MR122 Vertical Alignment, Namibia, Basic planning of K16 in Pretoria, Tshwane traffic engineering inputs; Project Manager for the Garsfontein / Brooklyn / Dely / Duxbury basic planning.

Traffic Safety

An Accident Recording System was developed and implemented for the Kingdom of Swaziland. The system development entailed the revision of a police reporting form, the incorporation of the findings on a GIS platform and training of the field officers tasked with the collection of collision data. Various other Traffic Safety investigations were undertaken in the Pretoria area, South Africa, such as the Nossob Street, Tsamaya Street and Jacqueline Street Road Safety Audits. A road safety audit has been conducted in the Eastern Cape in the vicinity of Port Alfred.

Traffic Signal Operation

Windhoek, Namibia. The design of new timing plans for the Windhoek CBD is currently being undertaken. A total of 62 intersections is included in the study brief. Randburg, City of Johannesburg, Detail design of timing plans for 9 traffic signals. Duncan Street Corridor, Pretoria; Rooihuiskraal Road Traffic Signals. Atterbury interchange traffic signal timing plans.

Weighbridge Investigation

The traffic investigation of the optimum position for the location of a new weighbridge on the N4 between Pretoria and Witbank was

undertaken. Extensive origin / destination surveys, as well as Road Side Interviews were undertaken.

Toll Road Investigation

Assistance was provided to SANRAL in the finalisation of the discount structure for frequent users at the new toll facility on the N4 near Bronkhorstpruit. Road Side Interviews were conducted to determine the frequency of trips on the freeway.

Nhlanhla Clement Maphanga



1. Personal Particulars:

Name : Nhlanhla Clement Maphanga
Date and Place of Birth : 22 October 1979, Nelspruit, South Africa
Places of Tertiary Education : Tshwane University of Technology 1999 – 2002 and University of Johannesburg 2005 -2006

2. Qualifications

- N Dip (Civil Eng)
- B Tech Transportation Eng

Professional Affiliations

- Member of South African Institute of Civil Engineering (Member No 202027)
- Engineering Council of South Africa (Candidate Engineering Technologist No. 200880150)

3. Current Employer and Present Position

ITS Engineers (Pty) Ltd, Technician, Pretoria, South Africa

4. Employment Record

- TFMC (2002) 3 Months contract
- ITS Engineers (Pty) Ltd, Pretoria, South Africa (2003 – 2006)
- Siyazi Transportation (2006 – 2008)
- ITS Engineers (Pty) Ltd, Pretoria, South Africa (2008 to date)

Brief Resume:

Clement is responsible for report writing, conceptual design, traffic signal design, intersection analysis, liaising with other stakeholders, and draughting.

5. Recent Assignments

TRAFFIC IMPACT STUDIES	
<i>Job title</i>	<i>Projects</i>
<ul style="list-style-type: none"> • Writing reports • Analysis • Drawings 	<ul style="list-style-type: none"> • Vametco EMR Amendment • Steynol Project Springs • Limpopo Coal Company Vele Colliery Musina • Exxaro Matla Colliery Specialist Studies, Mpumalanga • Booyendal Contractors Camp, Northam Platinum, Steelpoort, Limpopo Province • Golden Valley Project, Baseline Traffic Impact Assessment, Magaliesburg Gauteng • Sasol Fine Ash Dam, Secunda Mpumalanga • Witkop Exploration MRA, Slatercoal, Viljoenskroon • Wits Gold Mine, Greenfield Gold Mining Development near Virginia, Free State • Rietvlei Mine, North East of Middelburg, Mpumalanga • Mooifontein Shopping Centre TIS • Ackornhoek Crossing • Zwavelpoort Development • Landmark Country Lodge Extension • Limpopo Provincial Legislation Office • Southern Gateway • Erf 141 Ivypark • Vanggatfontein 251 IR mine in Delmas • Anglo Platinum mine in Mokopane • Boitekong x24 TIS (Rustenburg)
PUBLIC TRANSPORT	
<i>Job title</i>	<i>Projects</i>
<ul style="list-style-type: none"> • Venue Manager at the Bez Valley Park and Ride site for the 5 matches played in Johannesburg (14-28 June 2009) • Liaising with taxi and bus associations • Preparing traffic counts • Surveying • Draughting 	<ul style="list-style-type: none"> • City of Joburg • Rustenburg Taxi Rank • Menlyn Public Transport study (Pretoria)

<ul style="list-style-type: none"> • Conceptual design • Preparing the report 	
TRAFFIC SIGNALS PROJECTS	
Job title	Projects
<ul style="list-style-type: none"> • Designing of phases, detailing • Report writing • preparing bill of quantity and tender document 	<ul style="list-style-type: none"> • Brits Traffic Signals (P35-1/K8) • Oak and Witch hazel Avenue Traffic Signals • Burgersfort (Intersection of R555 & R37 and Praktiseer) • Bendor Traffic Signals (Intersection of Veldspaat and Munnik Street) • Polokwane Traffic Signals (Intersection of Market and 20th Street)
TRAFFIC IMPACT STUDIES	
Job title	Projects
•	•
GEOMETRIC DESIGN	
Job title	Projects
<ul style="list-style-type: none"> • Designing • Detailing and draughting of road widening accesses and stormwater 	<ul style="list-style-type: none"> • Oak and Witch hazel Avenue Traffic Signals • Rooihuiskraal North x27 Access (Old Johannesburg Road P1-2) • K109 Across N1 Freeway detail design • Upgrades of intersections of Ruimte / Baard, Poole / Baard and Lion / Wierda • Manovani Ext 6 Voortrekker Road (K71) access design • K52 Detail design • Rietvlei Ridge access design (Goede Hoop K54) • Boardwalk road signs and road markings Design • Celtisdal detail design (Apiesdoring Ave / Ruimte P102-1) • Five 'O Clock development Internal roads conceptual design • Hennospark X78 Road Upgrades Intersections of Lenchen / Escourt and Old Johannesburg Road P1-2 / new access
MASTER PLANNING	
Job title	Projects
<ul style="list-style-type: none"> • Capture information • Survey • Analysis • preparation of the report • traffic modelling with traffic 	<ul style="list-style-type: none"> • Manovani Master planning • Midstream Estates • Haakdoornboom Roads Planning and Study • Mamelodi Township Master Plan
ACCESS APPLICATION	
Job title	Projects
<ul style="list-style-type: none"> • Preparing reports • Geometric Layout 	<ul style="list-style-type: none"> • Mooifontein Shopping Centre Access on • Ackornhoek Crossing Access on D3930 • Access to Steelpoort Ext 11 on P169-2 (R555) • Access to Dilokong on R37 • Access to Doornbult 624 – LS • Access to the Farms Jooste 511ms and Dorothy 254ms on N1 • Access to Keaton on R37 • Access to portion 7 of the farm Roodraai 33 JT on R540 and R36 • Rhenosterfontein Access Investigation
INTESECTION INVESTIGATION	
Job title	Projects
<ul style="list-style-type: none"> • Surveys • Draughting • Analysis • Report writing 	<ul style="list-style-type: none"> • Burgersfort (Intersection of R555 and access to Burgersfort ext. 34 and 35) • Mabopane / Winterveld intersection investigation (9 intersections) • Tshwane Roads Prioritisation
TRAFFIC CALMING	
Job title	Projects
<ul style="list-style-type: none"> • Detailing and draughting • Surveying • Preparing Bill of quantities 	<ul style="list-style-type: none"> • Eldorado Park Traffic calming and Pedestrian Facilities • Orange Farm Pedestrian Facilities
SITE SUPERVISION	
Job title	Projects
• Assistant Resident Engineer	Erecting of Cameras on R21 between Hans Strijdom and Griffith Road.
2010 PUBLIC TRANSPORT OPERATIONAL PLAN	
Job title	Projects
• Conceptual Design for Park & Rides and Park &	• Mangaung 2010 PT Operational Plan

Walk	• Rustenburg 2010 Operational Plan
• Liaising with Stakeholders	
FIFA CONFIGURATION CUP VENUE MANAGEMENT	
Job title	Projects
• Venue Manager for the Park and Ride site	• City of Joburg park and rides • Rustenburg 2010 Operational Plan
DATA COLLECTION	
Job title	Projects
• To collect and analyse baseline data relevant to the measurement of the impact of the Bus Rapid Transit system to the implementation of the next phase.	• City of Joburg Data Collection for BRT
ADVERTISEMENT SIGNS SURVEY	
Job title	Projects
• To audit advertisement signs in South South (Nigeria)	• Nigeria Advertisements - Marketing

Jaco Stolp

B.Tech (Civil Engineering, Transportation)



Qualifications:

- **B. Tech** (Civil Engineering Transportation), Technikon Pretoria, 1995
- **National Diploma T3** (Civil), Technikon Pretoria, 1989
- **National Higher Diploma T4** (Civil), Technikon Pretoria, 1991

Present Position

ITS Engineers (Pty) Ltd, Technician

Employment Record

April 2012 – present, ITS, Pretoria - Technician

April 2007 – April 2012, ARUP, Johannesburg – Snr Traffic Engineer

July 2003 – March 2007, Ekurhuleni Metropolitan Municipality, Johannesburg – Snr Engineer

January 1996 – July 2003, Alberton Town Council – Snr Engineering Technician

January 1982 – July 1995, Transnet – Draughtsman / Engineering Technician

Professional Affiliations

Engineering Technologist-in-training: Registration number: 9680070 (default)

Training time completed (registration for professional technologist - pending)

Brief Resume:

Jaco is a seasoned traffic engineer with over 20 years' collective technical and managerial experience in traffic engineering, transportation engineering and municipal engineering and management. He is a dynamic person who works well as part of a team or on his own managing a team. Jaco has a proven track record managing large-scale projects and also in providing input into strategic planning. He has worked on projects promoting sustainable development requiring technical input through the delivery of Traffic Impact Assessments, Parking and Traffic studies, Public transport infrastructure and service audits and input into the Transport chapters of EIA's of selected projects. Jaco is also responsible for business development.

Project Experience

Technician, April 2012 – present, ITS

ITS Consulting is a professional services firm providing engineering, design, planning, project management and consulting services for all aspects of the traffic and transportation environment.

- Providing advice on the transport impacts of new developments as part of a professional team of transport planners and traffic engineers.
- Help develop and deliver Parking Studies, Construction Management Plans, input into Master Planning, intersection design.
- Business development – discussing with client's and determine needs and understanding his / her objectives.
- Develop bespoke TIA's to help clients obtain planning permission by ensuring the transport elements of their schemes support local council requirements and accords to best practice and government guidance.
- Client / Provincial / Local Authority consultation.

Senior Traffic Engineer, April 2007 – April 2012, ARUP Johannesburg

Arup is a Global professional services firm providing engineering, design, planning, project management and consulting services for all aspects of the built environment.

- Providing advice on the transport impacts of new developments as part of a professional team of transport planners, economists and traffic engineers.
- Help develop and deliver Parking Studies, Construction Management Plans, input into Master Planning, intersection design, traffic calming assessments and organising road closures.
- Business development – preparing competitive fee proposals / quotes for prospective jobs after discussing the client's needs and understanding his / her objectives.
- Prepare tenders.
- Advice provided includes a commercial understanding of transport policy, accessibility and engineering principles.
- Develop bespoke TIA's to help clients obtain planning permission by ensuring the transport elements of their schemes support local council requirements and accords to best practice and government guidance.
- Developed cost effective solutions to development problems that takes the form of a balanced package of measures including sustainable transport measures, new road infrastructure and schemes that compliment their surroundings.
- Client / Provincial / Local Authority consultation.
- Leading small teams and motivating them to achieve client objectives.

Senior Engineer, July 2003 – March 2007, Ekurhuleni Metropolitan Municipality Johannesburg

Ekurhuleni Metropolitan Municipality is one of three Metro's in Gauteng Province, subdivided into the Corporate office and three regional offices.

- Responsible for project planning and implementation.
- Liaison with consulting engineers, engineers (infrastructure provision and traffic engineering), developers, town planners and architects to consider their proposals.
- Extensive exposure to traffic impact study's, geometric layout, controlling of provision of roads, access points, road markings and road traffic signs and associated town planning issues.
- Processed over 2700 applications and comments on new developments.
- Understanding of the local and national planning policy, best practice and guidance to be able to advise clients of the commercial implication of their applications.
- Maintaining data records and budget control.

Senior Engineering Technician, January 1996 – July 2003, Alberton Town Council Alberton

Alberton Town Council was part of the local government structure before it was incorporated within the Ekurhuleni Metropolitan Municipality.

- Project Management (construction, roads and paving, earthworks).
- Surveying with surveying instruments.
- Traffic impact studies of projects to be implemented on the Greater Alberton Area road network.
- Re-zoning of properties, Consolidations and Subdivisions.
- Taxi Termini (Edenpark, Thokoza and Alberton North CBD) and transfer facilities.
- Project costing, budget management & expenses control.
- Assisted the Assistant Town Engineer with planning, designing and managing projects from the Capital budget.
- Prepared draft reports supporting projects for approval by Council.
- Set up the capital budget and provided motivations for projects, for each financial year.
- Designed and implemented Low Cost Improvement Projects on the road network in the Greater Alberton Area.
- Planned and designed roads and storm water drainage systems.
- Compiled tender documents for projects, and appointed consulting engineers.
- Liaised with the Eastern Gauteng Services Council regarding funding for projects, and set up planning and budget meetings.
- Advised on re-zoning and amendment schemes for properties in the Alberton area.
- Identified traffic problems and implemented projects to alleviate congestion.
- Maintained and updated the Master Plan on the sewer, water, storm water and resealing of roads. Identified possible projects and implemented annual work programmes.
- Provided the construction section with solutions, or conduct investigations, on matters regarding traffic, storm water or paving problems.

Experience before 1996

- **Draughtsman / Engineering Technician, January 1982 – July 1995, Transnet** - Responsible for all instrumentation as well as 12 staff members in the QC laboratory. Provided quality control input for several major projects. Transferred as SITE AGENT on several construction projects. **Promoted** in January 1991 to work in the inspection laboratory, which supervised quality control on construction sites. Transferred to Germiston Maintenance Depot in 1992 maintaining buildings and infrastructure.

Skills

Traffic and Transportation Engineering
 Municipal /Civil Engineering
 Communication / Facilitation
 Drafting
 Quality Control
 Financial Management
 Project Management
 Staff Management

This CV is dated April 2012

Johann Christoff Krogscheepers

Pr Eng, PhD, MITE, FSAICE



Qualifications:

Doctor of Philosophy (Ph.D.)	University of Natal, Durban	- 1997
M.Eng (Transport)	University of Pretoria, Pretoria	- 1992
Certificate in Arbitration	University of Pretoria, Pretoria	- 1991
B.Eng (Honoris)	University of Pretoria, Pretoria	- 1989
B.Eng (Civil, Cum Laude)	University of Stellenbosch, Stellenbosch	- 1986

Present Position

Director – ITS

Professional Membership

Fellow, South African Institute of Civil Engineers, 1993.

Registered Engineer, Engineering Council of South Africa, 1992 (No. 920021).

Member, Institute of Transportation Engineers, 1999 (No 32767).

Brief Resume

Christoff Krogscheepers is a director of ITS Engineers in Cape Town where he has managed projects ranging from large road rehabilitation projects, business planning of large projects, transportation master plans, toll impact studies, operational analysis of tunnels and road infrastructure, economic analysis of passenger and freight transportation, public transport infrastructure projects, transportation impact studies, Intelligent Transport Projects (Freeway Management Systems, Traffic Signal Systems, Bus Rapid Transport Systems, Setting up and Management of FMS Control Rooms). Prior to 2001 he worked for Kittelson & Associates, Inc. in their Portland (Oregon, USA) office. As a senior engineer and project manager he has been responsible for several traffic impact studies, bridge replacement studies, college master plans, urban planning studies, and access management plans. These studies were mostly for developments located in the States of Oregon, Florida and Washington. Prior to 1999 he was in the employ of BKS (Pty) Ltd (1989 to 1998) The first three years from 1989 to 1991 he was in full time employment and worked in the Pretoria and Johannesburg (South Africa) offices of the company. The next five years from 1992 to 1996 he was in part time employment of BKS while lecturing at the University of Natal and he joined BKS in their Cape Town offices again in January 1997. During the first three years at BKS he was involved in all transport and transportation related matters from traffic signal design to traffic impact studies. He also gained extensive project and construction management experience by being involved in a large laboratory for AECI. As a senior lecturer at the University of Natal he was involved in teaching Traffic, Transportation and Project Management from third year to post graduate level while also pursuing his studies towards a doctoral degree. During his employment at BKS in their Cape Town office (South Africa) he has been responsible for various traffic impact studies, master plans, parking studies, jet blast studies, noise studies and traffic and transportation related projects in and around Cape Town International Airport, including the design and construction of new aprons and service roads on the airside.

Detail Experience

ITS Cape (Pty) Ltd, (November 2001 – Present)

Office Director for ITS in Cape Town

- Cape Town BRT System – Intelligent Transport Systems and Fare Collection. Task Leader responsible for the design and implementation of the ITS systems for the proposed BRT.
- Cape Town BRT System Traffic Engineering. Task Leader responsible for traffic engineering and traffic impacts of the proposed system during the operational analysis of the system.
- Cape Town Freeway Management Systems – Project Leader for the implementation of a 100 km of FMS around Cape Town, including design, implementation and operations of a Traffic Management Centre, CCTV surveillance system and a Public Information System (VMS and Web Interface).
- Cape Town Freeway Management System – Project Leader for the implementation of a control centre for the Cape Town FMS system.
- N1/N2 Winelands Toll Consultant for SANRAL, including evaluation of toll strategies, capacity evaluation of main line sections, diversion studies and costing.
- Evaluation and Design of Interchange Alternatives on the N2 in George and Knysna.
- Capacity analysis and future forecasts of operations at the Hugenot Toll Plaza to determine upgrade requirements.
- Micro-simulation of the N1 and the N2 corridors in Cape Town to evaluate the impacts of proposed improvements and adding new interchanges and or upgrading existing interchanges.

- Managed and developed a Transportation Demand Management plan and implementation program for the City of Cape Town.
- Managed and conducted modelling for the Road Master Planning for the towns of George and Malmesbury.
- Conducted road corridor studies in George, Knysna, Malmesbury and Beaufort West.
- Involved in the Transportation Task team for the Business Planning of the Klipfontein Bus Rapid Transit Corridor. This included the evaluation of the optimum mode along the network, demand forecasting, scheduling, infrastructure requirements, cross-sections of roadways and busways, station layouts, costing of infrastructure requirements, costing of services and rolling stock.
- Economic Analysis of large road design projects in Namibia (Opuwu to Okakao), Northern Cape (Vaalharts Irrigation Road System) and Beaufort West (N1 Alternative Alignments).
- Lead consultant for the development of a Transportation Management Plan for Mitchell's Plain.
- Managed and conducted transportation studies to evaluate the impact of the proposed tolling of the N1 and N2 freeways.
- Safety improvements, traffic design and geometric design of a rehabilitation project on the N2 between George and Knysna, including the identification of alternatives to improve Kaaimans Pass.
- Involved in numerous traffic impact studies and access applications on micro and macro scale both local and in the USA.
- Part-time lecturer at Peninsula Technicon in Project Management and Transportation Planning.
- Road Construction and Road Improvement Projects at interchanges on the N1 and N2, including safety improvements at hazardous locations and intersections.
- External Examiner at the University of Stellenbosch, University of Cape Town, Pentech and Cape Town Technicon.

BKS Pty (Ltd) Bellville, SA. (April 2001 to October 2001))

Chief Engineer

- Project Manager for the transportation element of the Culemborg Development Framework.
- Managed and conducted a number of transportation studies for different sites in the United States, including large shopping centres and filling stations. These studies were conducted for Kittelson and Associates.
- In associations with Kittelson and Associates, developed a simulation model using Paramics to test the feasibility of bus priority phasing at seven intersections in Orlando (Florida).
- Micro-simulation models to test the impacts of large retail developments for both local developments and developments abroad such as in Burlington, Washington (USA).

Kittelson & Associates, Inc. Portland, USA. (Jan 1999 to April 2001)

Senior Engineer

- Managed impact studies for various commercial and residential developments in and around the Portland area.
- Managed a bridge replacement study for the Lewis & Clark bridge across the Columbia at Longview.
- Managed a transportation study to update the Master Plan for Reed College in Portland.
- Developed and managed various transportation models employing micro simulation including, amongst others, an interchange evaluation in Eugene (Oregon), a model of downtown Tampa (Florida), evaluation of streetcar operations in downtown Portland (Oregon), evaluation of high occupancy lanes on Interstate 4 in Orlando (Florida), and a number of smaller intersection evaluations.
- Managed the traffic analysis and design of the signing and striping of a new roadway (Padden Parkway)
- Lead the development of a course on roundabout analysis and design based on the FHWA Roundabout guide titled: "Roundabouts: An Informational Guide". Co-presenter of the course at several locations across the United States.

BKS Pty (Ltd) Bellville, SA. (Jan 1997 to Dec 98)

Chief Engineer

- Involved in the final completion of a Master Plan for Cape Town International Airport in co-operation with Mott MacDonald of the United Kingdom.
- Did the detail design and involved in the preparation of contract documentation for the construction of extensions to the aprons at Cape Town International Airport.
- Involved in the detail investigation of alternative sites for CTIA.
- Various studies on the airside at Cape Town International Airport, including studies on by-pass taxiways, the effects of jet blasts behind aircraft and a study into the capacity of the current and planned future runways.
- Investigated the need for further apron extensions in addition to existing aprons and those under construction at Cape Town International Airport.

- Completed a transportation plan for Cape Town International Airport and the surrounding precincts. This study involved the preparation of a validated Contram model for the area immediately surrounding the airport. This also included a detailed investigation of the landside parking and kerbside loading and off-loading activities.
- Managed the construction of service roads on the airside of Cape Town International Airport.
- Managed various traffic impact assessments for retail and residential developments in and around Cape Town.
- Investigated the road side noise effects due to existing traffic and the estimated increase in noise due to the increase in traffic on surrounding neighbourhoods
- Completed a study into the current kerbside activities and the requirements for additional road space at the Cape Town International Airport.

University of Natal, Durban, SA (Jan 1992 to Dec 1996)

Lecturer and Senior Lecturer.- Part time consultant for BKS Pty (Ltd) in Durban

Academic Activities:

- Lectured in Transportation Engineering and Project Management, responsible for the following graduate and post graduate courses:
 - ✓ Engineering Systems (Numerical Optimisation and Project Management Tools)
 - ✓ Transportation (Third year course)
 - ✓ Transportation (Final year course)
 - ✓ Traffic Signals (Post Graduate Course).
- Received an "Excellence in Teaching" award in (1994) from the Faculty of Engineering.
- Served on the national advisory committee on "Traffic calming guidelines".
- Responsible for all computer and computer network related support in the department which included supporting users where possible, maintaining civil engineering network (users and software), maintaining and purchasing of all new hardware.
- Contract Research for the Department of Transport into the application of traffic circles as a traffic control measure in developing urban areas.
- Pursued studies towards a Doctorate in Transportation Engineering

Consulting activities during this period:

- Durban Corporation Traffic Data Collection Strategy: A study to optimize the Traffic and Transportation data collection activities of the Durban Corporation and to formulate a collection strategy.
- Springfield Flats Traffic Impact Study: A study into the possible traffic impact on the surrounding road infrastructure, of a proposed light industrial development on the flats immediately south of the Umgeni River.
- Mq̣hawe Sub-regional Transportation study: Assisted in the design and setting up of a sub-regional transportation study for Mq̣hawe, a developing area, including preliminary interchange designs for road reserve allocations.
- Richards Bay Transportation Study: Developed a transportation model for the greater Richards Bay area to model their transport needs in the next five to ten years.
- Richards Bay Intersections: Ongoing analysis of traffic light settings at existing signalised intersections and evaluation of intersection control at priority intersections in the Richards Bay area.
- Royal Maitland Estate: Initial basic design for sewage and stormwater management for the development of an up-market residential development in Kloof, a suburb of Durban.
- Tipuana Terrace: Responsible for the civil design and supervision of construction work of a housing development in the Waterfall area in Durban.
- Durban Sports Dream: Involved in the transportation aspects of a conceptual design to transform a large area along the Durban Beach to the north of the City Centre (including Kings Park rugby and soccer stadiums as well as the swimming pool) into a sports village catering for all possible sports. The feasibility to link this area with a mass transit system to the CBD and major stations was investigated.

BKS Pty (Ltd), Pretoria and Johannesburg, SA (Jan 1989 to Dec 1992)

Engineer in Training and Engineer

- Signal design: Optimization studies for traffic signals in Centurion, Sandton and in the greater Gauteng. Extensive use was made of traffic simulation software like Simnet and Transyt.
- Impact Studies: Involved in traffic impact analysis for various developments, ranging from street closures (Roper Street), and sports stadia (Project Arena), to residential and commercial developments (Eastcliff).
- Traffic Corridor Analyses: Made extensive use of the Transyt software to analyse the optimum signal settings and signal control strategies to optimize the coordinated signal control along the Ontdekkers Road corridor.
- Transportation Planning: Conducted a planning study for the Kempton Park area. From detailed origin - destination

surveys to the software modeling.

- Public Transport Planning: Subsequent to the detailed Masstran investigation for a transit system for Johannesburg CBD, a number of options were investigated to kick start the project in association with Matra of France.
- Computer aided Research: The optimum application of the different types of traffic signal controllers i.e. fixed time control, vehicle actuated control (full-, semi- and linked-VA control) and real time control were investigated as part of a research project for the South African Department of Transport.
- Project management and site supervision: Involved in the design, management and construction supervision of a R13,5 million R&D laboratory for AECI in Johannesburg. Acted as project manager and resident engineer until the successful completion of the project within budget and time constraints.

Papers and Publications

- *Application of Traffic Signal Control Strategies*, Krogscheepers J.C. & Stander H.J., Annual Transport Convention, Pretoria, August 1990.
- *Traffic Circles in Developing Urban Areas*, Krogscheepers J.C. & Roebuck C.S., Annual Transportation Convention, Traffic Engineering, Pretoria, 1994.
- *Red light violations: The human factor*, Krogscheepers J.C., Roebuck C.S. & Wickham J.C., Annual Transportation Convention, Safety, Pretoria, 1994.
- *Traffic circles: Panacea or Palliative?*, Krogscheepers J.C. & Roebuck C.S., Annual Transportation Convention, Safety, Pretoria, 1995
- *Prediction of Gap Acceptance Behaviour at traffic circles - recent findings*, Krogscheepers J.C. & Roebuck C.S., Third International Symposium on Highway Capacity, Copenhagen, Denmark, 1998
- *Traffic Circles as a Control Measure in Developing Urban Areas*, Contract Research Report to the SA Department of Transport. (PR 92/473) April 1993 and April 1994.
- *Noise prediction and noise measures at Cape Town International Airport*, Stander, H.J., Krogscheepers, J.C. & Goldshagg, P, Conference on Environmental Management, Gauteng, 1999.
- *Simulation of traffic at Roundabouts*, Krogscheepers, J.C. & Roebuck, C.S., 6th Annual Conference, ITE, Las Vegas, 1999.
- *World News: Simulation of Traffic at Roundabouts*, Krogscheepers, J.C. & Roebuck, C.S., Institute of Traffic Engineers Journal, July 1999.
- *Roundabout Operations: A summary of FHWA's Roundabouts: An Informational Guide*, Krogscheepers J.C., Robertson, B.W. & Rodegertds, L, South African Transport Conference, Pretoria, 2001.
- *Latest trends in micro simulation: An application of the PARAMICS model* – Krogscheepers J.C., & Kacir, K., South African Transport Conference, Pretoria, 2001.
- *The Paramics Micro Simulation Model*, Krogscheepers, J.C. South African Transport Conference, Pretoria, 2001.
- *Bus Pre-emption and Priority: The Case for Klipfontein*. SASITS e-Transport Conference on Innovative Solutions for New World Economies, Cape Town, May 2005.
- *The Devil is in the Detail: Why are we doing what we are doing*, JC Krogscheepers, Annual Transportation Convention, Pretoria, 2005.
- *Roundabouts - An International Perspective*, JC Krogscheepers, Annual Transportation Convention, Pretoria, 2006.
- *Travel demand management in Cape Town*, Hitge, G & Krogscheepers JC, Annual Transportation Convention, Pretoria, 2009.
- *Traffic Signal Strategies for the Cape Town Integrated Rapid Transit Project*, Frieslaar, A, Krogscheepers, JC, Annual Transportation Conference, Pretoria 2009.



CURRICULUM VITAE: RIËTHA OOSTHUIZEN

Firm : CSIR
Profession : Medical Scientist
Specialization : Environmental Health; Air Quality
Position in Firm : Senior Researcher
Nationality : South African
Language Proficiency : Afrikaans, English
Contact details : Tel (012)841-2035, Fax (012) 841-2689, e-mail: roosthui@csir.co.za
CSIR-NRE, PO Box 395, Pretoria, 0001

KEY QUALIFICATIONS

Knowledge and experience in:

- *Human health impact assessment and health risk assessment studies*
 - *Ambient air quality surveys (industrial and non-industrial environment)*
 - *Indoor air quality surveys (industrial and non-industrial environment)*
 - *Chemotherapy research*
 - *Medical technology (Haematology)*
-

EDUCATION AND PROFESSIONAL STATUS

Qualification	Institution	Year
MMedSc	University of KwaZulu Natal	2005
Approved inspection authority	Technikon Pretoria	1995
Registration Medical Scientist	Health Professions Council of South Africa MW 0005320	1993

Memberships:

- National Association for Clean Air
 - Registered as a medical scientist with the Health Professions Council of South Africa
-

EMPLOYMENT AND EXPERIENCE RECORD

Period	Organisation details and responsibilities/roles
1989 – present	CSIR, Senior Scientist: Competency area: Climate Studies, Modelling and Environmental Health Environmental Impact Assessment (EIA) studies; Human health risk assessments; Vulnerability of SA low-income communities to environmental pollution
1984 – 1988	Part-time financial analysis at University of Pretoria
1982 – 1984	Chemotherapy research, HF Verwoerd Hospital, Pretoria
1977 – 1981	Suburban Homemaker, mother
1972 – 1976	Researcher: Department of Internal Medicine, UOFS: Haematology, Completed Honours Degree in Pathology (Haematology)

Recent Project Experience:

Year	Description
2011	<p>Project Leader: LanXess-CISA (Chrome International) air quality monitoring programme in New Castle</p> <p>Project Leader: Lonmin air quality monitoring programme in North West Province</p> <p>Project leader: Continuation of Health Risk Assessment in the Vaal Triangle; an epidemiology study to compare the current respiratory health status of children to that of the 1990 VAPS study.</p> <p>Part time lecturer: Environmental Epidemiology TUT</p> <p>Senior Researcher: Continuation of human health risk assessment to air pollution in a community within the Highveld Air Pollution Priority Area</p> <p>Senior Researcher/Human Health Risk Assessor: Human health risk assessment of metals in dust at Kumba mine, Sishen, Northern Cape.</p>
2010	<p>Project Leader: LanXess-CISA (Chrome International) air quality monitoring programme in New Castle</p> <p>Project Leader: Lonmin air quality monitoring programme in North West Province</p> <p>Project leader: Baseline health study in Lephalale Local Municipality</p> <p>Project leader: Health risk assessment in the Vaal Triangle; an epidemiological study to compare the current respiratory health status of children to that of the 1990 VAPS study.</p> <p>Part time lecturer: Environmental Epidemiology TUT</p> <p>Senior Researcher: Continuation of analyses of the <i>in vivo</i> experiments involving a murine model to determine adverse effects of nanoparticles</p> <p>Senior Researcher: Human health risk assessment to air pollution in a community within the Highveld Air Pollution Priority Area</p> <p>Senior Researcher/Human Health Risk Assessor: Human health risk assessment of PAHs at MOZAL, Mozambique.</p>
2009	<p>Project Leader: Chrome International air quality monitoring programme in New Castle</p> <p>Project Leader: Lonmin air quality monitoring programme in North West Province</p> <p>Senior Researcher/Health Risk Assessor: Human health risk assessment for the proposed KwaDukuza landfill site in KwaZulu-Natal.</p> <p>Lectures as part of short courses – School of Public Health – UP</p> <p>Part time lecturer: Environmental Epidemiology TUT</p> <p>Senior Researcher/Health Risk Assessor: Human health risk assessment for the proposed Alfluorco Chemical Plant EIA at Richards Bay in KwaZulu-Natal.</p> <p>Senior Researcher: Continue with the <i>in vivo</i> experiments involving a murine model to determine adverse effects of nanoparticles.</p>
2008	<p>Project Leader: Assmang air quality monitoring.</p> <p>Project Leader: Chrome International air quality monitoring programme in New Castle</p> <p>Project leader/Senior Researcher: Determining exposure of small-scale gold miners to mercury</p> <p>Senior Researcher/Air Quality Specialist: Mpumalanga Department of Agriculture and Land Administration: Development of a Municipal Integrated Pollution Control Model.</p>

Senior Researcher: South African National Energy Research Institute: Development of a tool to scientifically assess the effectiveness of interventions in mobility management

External examiner: Masters dissertation Tshwane University of Technology.

Lectures as part of short courses – School of Public Health – UP

Part time lecturer: Environmental Epidemiology TUT

Senior Researcher: Review of studies on air pollution in dense low-income communities A project for DEAT/DANIDA.

External Reviewer: Human health specialist study in an EIA

Senior Researcher: Review epidemiology studies done in the Western Cape as input to an air quality management plan for the Western Cape

Senior Researcher/Health Risk Assessor: Human health risk assessment for the Transnet Pipeline EIA

Senior Researcher/Health Risk Assessor: Human health risk assessment for the Proposed N2 Wild Coast Toll Highway EIA.

Senior Researcher: *In vivo* experiments involving a murine model to determine adverse effects of nanoparticles.

2007

Project Leader: Assmang air quality monitoring.

Project Leader: Chrome International air quality monitoring programme in New Castle

Researcher: 2nd year of Epidemiology study to determine vulnerability of South African low-income communities to air pollution;

Lectures as part of short courses – School of Public Health – UP

Visited international experts in nanotechnology in the UK, Scotland and Switzerland

Senior Researcher/Human Health Risk Assessor: Air quality and human health specialist study for the proposed Coega Integrated LNG to Power Project (CIP) within the Coega Industrial Zone, Port Elizabeth, South Africa.

2006

Project Leader: Assmang air quality monitoring.

Project Leader: Chrome International air quality monitoring programme in New Castle

Researcher: Epidemiology study to determine vulnerability of South African low-income communities to air pollution

Researcher & Air Quality Specialist: State of Environment Report –Nkangala District Municipality

Human Health Risk Assessor: EIA for Natal Portland Cement (Pty) Ltd for the Proposed AFR Programme at the Simuma Plant, Port Shepstone

External examiner: MMedSc dissertation University of KZN

Lectures as part of short courses – School of Public Health – UP

Researcher and Air Quality Specialist: Strategic Environmental Assessment Cape Winelands District Municipality

Researcher/ Human Health Risk Assessor: EIA Sasol Benzene Reduction Plant.

PUBLICATIONS/CONFERENCE PAPERS (2006-2012)

Peer-Reviewed Journal Articles

Oosthuizen MA. 2006. NACA-sponsored epidemiology study in Vaal Triangle. *The Clean Air Journal*, 15(1). ISSN 1017-1703.

Oosthuizen MA, Jinabhai C, Terblanche APS and Becker P. 2008. A transition in health status from childhood to adulthood and associated risk factors: A 13-year interval follow-up study in South Africa. *International Journal of Environmental Health Research*, 18(1): 65-72.

Oosthuizen MA, John J and Somerset V. 2010. Mercury exposure in a low-income community in South Africa. *South African Medical Journal* 100(6): 366-371.

Oosthuizen MA, Pretorius E, Oberholzer HM Van der Spuy WJ. 2010. Ultrastructural Analysis of Platelets and Fibrin Networks in BALB/c Mice after Inhalation of Spherical and Rod-shaped Titanium Nanoparticles. *International Journal of Morphology* 28(4): 1263-1271.

Wright C, **Oosthuizen R**, John J, Garland RM, Albers P and Pauw C. 2011. Air Quality and Human Health among a Low Income Community in the Highveld Priority Area. *The Clean Air Journal* 20(1): 12-17.

Matooane M, John J, **Oosthuizen R**. 2011. Self reported hypertension in eMbalenhle: findings from a vulnerability to air pollution assessment study in eMbalenhle, Mpumalanga, South Africa: *Southern African Journal of Epidemiology and Infection* 26(4): 280-284

Oosthuizen MA, Oberholzer HM, Scriba MR, Van der Spuy WJ and Pretorius E. Evaluation of the morphological changes in the lungs of BALB/c mice after inhalation of spherical and rod-shaped titanium nanoparticles: Accepted for publication in *Micron* 2012.

Popular articles / other

Wright C, Forbes P and **Oosthuizen R**. 2009. Breathe easy: simple solutions for healthy homes. *IMFO*. 9(4):38-39.

Wright C, Genthe B, John J, **Oosthuizen MA**, Steyn M, Le Roux W and Pauw C. (2011) Environmental pollution puts communities' health at risk in Mpumalanga. *NAQO News* 5(2): 13-15

Book chapter

Leaner J, Dabrowski, JM, Murray K, Ashton P, Mason RP, Zunckel M and **Oosthuizen R**. 2007. Mercury research for policy development in South Africa (in Yongguan Z, Lepp, N and Naidu R (eds). *Biochemistry of Trace Elements: Environmental Protection, Remediation and Human Health*). ISBN 978-7-302-15627-7.

Papers accepted for publication

Papers submitted

C. Wright, **M.A. Oosthuizen**, J. Mostert and L. Van Niekerk Air Quality and Air-related Complaints: Towards finding Appropriate Indicators for Public Health Surveillance in Air Quality Management in South Africa.

C. Wright, **M.A. Oosthuizen** and M. Steyn Integrating Air-related Health Surveillance into Air Quality Management: Perceptions and Practicalities

Papers in preparation

John J, Wright C, Albers P, **Oosthuizen R**, et al. in prep. Environmental pollution in the Brugspruit area: Establishing a health baseline.

Books Edited

Raghunandan A, Matooane M and **Oosthuizen R**. 2006. Department of environmental affairs and tourism: National air quality management programme: publication series 4: book 5 Impacts of Air Pollution

Papers in Peer-Reviewed Conference Proceedings

John J, Binedell M, Matooane M and **Oosthuizen R**. 2006. Vulnerability in the South African context. CSIR Research and Innovation Conference: 1st CSIR Biennial Conference, CSIR International Convention Centre Pretoria, 27-28 February 2006, pp 16

John J, **Oosthuizen MA** Binedell M and Matooane M. 2007. Application of a vulnerability assessment framework in a low-income community in South Africa. Conference of the *International Society for Environmental Epidemiology* at the Sheraton Hotel, Historical Centre, Mexico City 4-9 September 2007.

John J, Matooane M, **Oosthuizen MA** and Wright C. 2008. Vulnerability to air pollution: to intervene or not to intervene. 2nd CSIR Conference. Pretoria, 17&18 November 2008.

Leaner JJ, Binedell M, **Oosthuizen R**, Matooane M, Mason RP and MacMillan P. 2008. Risk assessment of the mercury footprint in selected rivers of South Africa. Proceedings of 14th International Conference on Heavy Metals in the Environment Taipei. Nov. 16-23, 2008. ISBN 978-986-01-5851-9.

Kornelius G, John J, **Oosthuizen R**, Pauw C, Van Niekerk AS and Holm D. 2008. Air pollution in dense, low-income settlements in South Africa. Paper presented at the 16th International IUAPPA conference in association with the national NACA conference. 1-3 October 2008. Nelspruit South Africa.

Wright C and **Oosthuizen MA**. 2009. Air quality monitoring and evaluation tools for human health risk reduction in South Africa. Paper presented at the NACA conference, 15-16 October 2009, Vanderbijlpark, South Africa.

Matooane M, John J and **Oosthuizen R**. 2010. Vulnerability to air pollution: a building block in assessing vulnerability to multiple stressors. 3rd CSIR Conference 2010. Science Real and Relevant. CSIR International Convention Centre, Pretoria, South Africa, 30 August – 01 September 2010.

Oosthuizen MA, Pretorius E, Oberholzer EM and van der Spuy WJ. 2010. Can existing South African air quality standards be applied to nanoparticles? NACA Annual Conference, Polokwane, 13 - 15 October 2010.

Other Conference Presentations

Wright C, Genthe B, John J, Steyn M, **Oosthuizen R**, Albers P, Le Roux W, Pauw C and Garland R. 2011. Environmental pollution and exposure risks among low-income communities in Vosman / KwaGuqa / Empumelweni, Mpumalanga, South Africa. 7th PHASA Conference, 29-30 November 2011

Sandton Convention Centre, Johannesburg.

Riëtha Oosthuizen, Caradee Wright and Juanette John. Respiratory health status of a low-income community in the Highveld Air Pollution Priority Area. 2nd Annual ECO-HEALTH Conference, 24-25 November 2011 Misty Hills, Muldersdrift.

Poster Presentations

Oosthuizen MA and John J. 2007. Health Status of young adults from different socio-economic environments in South Africa 19th Annual Conference of the *International Society for Environmental Epidemiology* at the Sheraton Hotel, Historical Centre, Mexico City 4-9 September

2007.

Slabbert JL, **Oosthuizen MA**, Moletsane M, Oberholster P, Musee N, and Binedell M. 2008. Effects of Titanium Dioxide nanoparticles on *Daphnia pulex*. 9th International conference on Particles: Risk and Opportunities; Lagoon Beach Hotel, Cape Town, South Africa, 2-5 September 2008. Publication Number: CSIR/NRE/PW/EXP/2008/0459/A

John,J, Matooane M, **Oosthuizen MA** and Wright,C. 2008. Vulnerability to air pollution: to intervene or not to intervene. Poster presented at the 2nd CSIR Biennial Conference, 17-18 November 2008, Pretoria, South Africa. 2008

Wright C, Forbes P, and **Oosthuizen MA**. 2009. Potential nanotoxicity health risks from domestic indoor solid fuel burning using the “Basa Njengo Magogo” method of lighting a fire. Poster presented at the International Society of Exposure Science 2009 Annual Conference 1-5 November 2009, Minneapolis.

Wright CY and **Oosthuizen MA**. 2010. Tracking air-related health should be an integrated part of Air Quality Management in South Africa. Poster presentation at the CSIR Conference 30 and 31 August 2010.

Oosthuizen MA, John J and Somerset V. 2010. Evidence of mercury exposure in a particular low-income community in South Africa. Poster presentation at the CSIR Conference 30 and 31 August 2010.

Thabethe ND, Jagals P, **Oosthuizen R** and Wright CY **Approach to Assessing the Health Risks Posed by Inhaling Particulate Matter (PM₁₀) in eMbalenhle, Highveld Priority Area**. Poster presentation at the annual conference of the National Association for Clean Air (NACA) Polokwane, 13 - 15 October 2010.

Research and Contract Reports A list of more than 300 reports are available at request



DIGBY WELLS
ENVIRONMENTAL

BARBARA WESSELS

Ms Barbara Wessels

Unit Manager

Projects and Closure Department

Digby Wells Environmental

1 EDUCATION

Course completed: BSc. Geography and Environmental Management at the University of Johannesburg

2 EMPLOYMENT

March 2012 to Present	Digby Wells and Associates	Unit Manager: Rehabilitation
2007 – February 2012	Digby Wells and Associates	Environmental Consultant
2006 – 2007	Digby Wells and Associates	Student

3 EXPERIENCE

As environmental consultant I assist in various portions of a project as required. The list below is the experience gained at Digby Wells:

- Environmental auditing at Anglo Plantinum Rustenburg Section and Xstrata Coal South Africa;
- Three month secondment to the Environmental Department of AgloGold Ashanti Iduampriem Limited (Ghana);
- Bankable feasibility study for IMC Group Consulting for the Etoile mine (DRC);
- Integrated water use license for Xstrata Coal SA, Spitzkop Colliery and the Exxaro, Zeeland Water Treatment Works;
- Mining right applications for various projects;
- Mining right conversions for Xstrata Coal SA and Crown Mines;
- Water management plan for Xstrata Coal SA, Spitzkop Colliery;
- Compilation of scoping reports and Environmental Impact Assessment/Environmental Management Programme (EIA/EMP) reports for various projects;
- Undertaking of aquatic assessments for various projects in South Africa and in Mali at Loulo Gold Mine;
- Implementation of aquatic biomonitoring plans in South Africa;
- Assisting with wetland delineation for various projects in South Africa;

Digby Wells & Associates (Pty) Ltd. Co. Reg. No. 1999/05985/07. Fern Isle, Section 10, 359 Pretoria Ave Randburg Private Bag X10046, Randburg, 2125, South Africa
Tel: +27 11 789 9495, Fax: +27 11 789 9498, info@digbywells.com, www.digbywells.com

Directors: AR Wilke, CD Wells, LF Koeslag, PD Tanner (British)*, AJ Reynolds (Chairman) (British)*, GE Trusler (C.E.O)
*Non-Executive

- Project management and project administration;
- Compilation of proposals for various projects;
- Undertake the closure cost liability assessments for Xstrata Coal SA and Galaxy Gold Mine;
- Compilation of rehabilitation plans;
- Assist in the undertaking of a due diligence for ARM Coal; and
- Various prospecting right applications.

4 TRAINING

2012	Risk Assessment Facilitator Training	In house training (Dr Phil Tanner)
2011	Discard dump rehabilitation	Training by Dr Phil Tanner
2010	Emergency first aid level 1	Institute of Emergency First Aiders
2010	Introduction to Geology	African Land-Use Training
2010	Microsoft Excel	Executrain
2008	Unilever introduction to managing environmental water quality: Theory and Policy	Rhodes University
2008	Unilever introduction to managing environmental water quality: Practical Course	Rhodes University
2009	The threats and impacts posed on wetlands by infrastructure and development: Mitigation and rehabilitation thereof	Gauteng Wetland Forum
2007	Snake Identification and Snakebite Treatment Course	African Reptiles and Venom.

5 PROFESSIONAL AFFILIATIONS

Member of IAIA, International Association for Impact assessments.

document1