

Curriculum Vitae

Proposed Position	: Senior Project Director and Water Supply Engineer
Name of Firm	: Skat Consulting Burundi, P.O. Box 6132 Kinindo, Bujumbura, Burundi Tel: +257 71 21 99 47, e-mail: james.racicot@skat.ch
Name of Staff	: James Racicot
Profession	: Water and Sanitation Specialist, Senior Project Coordinator
Date of Birth	: 19 May, 1967
Years with Firm	: Since 2015
Nationality	: Canadian

KEY COMPETENCIES

Mr. Racicot is a water supply/environmental engineer and senior Project Director with almost 25 years of technical, managerial and capacity building expertise within major projects in Canada, South and Southeast Asia, the Middle East and Africa. His international experience spans over 20 years and includes long and short term assignments in Afghanistan, Burundi, Chad, DR Congo, Eritrea, Ghana, Haiti, India, Jordan, Nigeria, the Philippines, Rwanda and Uganda. He has served as Team Leader/Project Manager on major rural and peri-urban water projects, environmental studies, master plan studies, capacity building projects and water and sanitation projects.

He brings over 20 years of experience in business development including lead roles in proposal preparation and team building, and maintains key project management skills in project planning, budgeting and quality control. His key technical skills include project planning and development, technical design and monitoring, financial controls and mentoring. He brings over 10 years of experience in geo-database development and data integration into strategic investment plans, and more than 15 years of experience in the design, construction and rehabilitation of water supply infrastructure in developing countries. Additional key skills include:

- Project planning and development
- Environmental Impact Assessment
- Facilitating public consultations
- Regulatory approvals and licensing
- Tender preparation and bid evaluation
- Water point management guidelines
- Construction contract management
- Detailed hydrogeological reconnaissance
- Design of borehole siting programs
- Borehole drilling supervision and well design
- Water quality analyses interpretation
- Computer modelling of aquifer(s)
- Design of well rehabilitation programs
- Well field design and pump selection

Working in partnership with stakeholders in the water sector, Mr. Racicot has participated in the development of strategies and approaches for the implementation of demand-driven rural water supply projects. He has facilitated workshops and developed training programs to build the capacity in the following key areas:

- Water point siting principles
- Aquifer analyses for sustainability
- Monitoring and evaluation
- Tendering and contract administration
- Water point construction/rehabilitation methods
- Selection of appropriate technologies
- Design of operation and maintenance plans
- Cost recovery mechanisms

As a Senior Environmental Engineer responsible for design, implementation and management of over 100 Phase I, II and III Environmental Site Assessments (ESAs) for proposed and existing landfills, bulk petroleum storage facilities, industrial sites and commercial/residential developments, key skills include:

- Identifying specific protocols and designing field investigation and sampling programs
- Development of Remediation Action Plans (RAPs)
- Designing, tendering and monitoring of ground water and soil remediation systems
- Environmental Baseline Assessment (EBA) and Impact Assessment (EIA)

EDUCATION

Institution (Date)	:	Degree(s) or Diploma(s) obtained:
University of Manitoba, Canada (1985-89)	:	B.Sc. in Geological Engineering

FURTHER TRAINING

2007 : WATSAN-Certificate, by ICRC and the University of Neuchâtel, Switzerland
2007 : Course on Earthquake resistant reconstruction, by Swiss Solidarity Fund
2001 : Courses on Good Urban Governance in South Asia, by the University of Geneva

LANGUAGES

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
French	Excellent	Excellent	Excellent

MEMBERSHIP OF PROFESSIONAL BODIES

- National Ground Water Association (NGWA)
- International Association of Hydrogeologists (IAH) Canadian Chapter
- Association of Professional Engineers of the Province of Manitoba (APEGM)
- Professional Engineers of the Province of Ontario (PEO)
- Engineers Without Borders (Manitoba Chapter)

OTHER SKILLS AND TRAINING

Advanced Groundwater Computer Modelling with GMS (2003) Brigham Young University, USA
 Participatory Rapid Appraisal (CIDA 2001)
 Gender Strategy in the Water and Sanitation Sector (2000)
 Project Management Professional (PM Institute 1999 - 2001)
 Results Based Management (CIDA 1998)
 Fully computer literate (including MS Project, Word, Excel, MS Office, PowerPoint, etc)
 Geo software: ArcGIS, ArcHYDRO GW Data Tool, MODFLOW GMS, Visual MODFLOW, Aqtesolve

SPECIFIC LONG-TERM EXPERIENCE IN DEVELOPING COUNTRIES

Country	:	Date from – Date to
Burundi, Rwanda, DRC	:	since 2015
Jordan	:	2013–2014
Afghanistan	:	2011–2013
Haiti	:	2011–2013
Ghana	:	2005– 2010, 1999–2003
Chad	:	2004–2005
Nigeria	:	2003, 1996–1997
Uganda	:	1999
Eritrea	:	1998–1999
Philippines	:	1995–1996

EMPLOYMENT RECORD AND PROFESSIONAL EXPERIENCE

Skat Consulting Burundi for Development

Project Coordinator - PEPP

2015– ongoing

Financed by the Swiss Cooperation, the PEPP project aims to construct sustainable water supply infrastructure in the Great Lakes Region (DRC, Rwanda and Burundi). With a budget of 18 M USD, it is the largest sectorial project by SDC in the region and comprises software and community development activities including major capacity building components for national partners at all levels. The selection of projects is undertaken through participatory planning processes, including training and support to local partners to replicate the approaches country-wide. With over 250,000 beneficiaries targeted, health and hygiene promotion are also key components to integration PEPP into the multi-sector approach to WATSAN delivery.

Knowledge sharing and exchanges are a key element of the institutional sustainability strategy and are being developed through participatory approaches with national and international partners. Mr. Racicot is leading a team of dozens of national and international experts in health and hygiene promotion, latrinitisation, GIS, engineers, and other specialists in 4 project offices throughout the three countries.

COWATER International

Senior Project Director and Water Supply Expert

2011–2015

s project director, responsible for business development in the Water and Sanitation group, and planned and managed project activities and supervised their implementation. Reviewed and authorized all project deliverables and monitored expenditures against and within contract budgets. Oversight of flow and expenditures and/or other funds from the Client to the project office in the field.

Directorship of the following key projects, including project start-up activities:

Director for MCC funded Water Smart Homes Improvement Works project in Amman, Jordan. This project aims to provide assistance to rehabilitate water supply infrastructure for over 3,500 houses holds and develop a multi-year communication and awareness campaign targeting over 100,000 beneficiaries. Completed household survey of 12,000 locations using ODK data management system, and led the team in the development of the communication strategy to accompany infrastructure improvements, vocational training strategy and gender strategy.

Director for the Capacity Building for Western Basins Water Resources Management Project (Afghanistan) funded by Asian Development Bank. Responsible for oversight of needs assessment and capacity building training plan for Ministry of Energy and Water staff and other stakeholders in Afghanistan. Also facilitated specific training modules in Groundwater Resources Management, Contract Administration and Project Management in-service courses.

Director – MCC funded rural water supply project in Mozambique. Responsible for the directorship of the closing out phase of the project aiming to complete 600 rural water points and building the capacity of community-based organisations for operation and maintenance of the systems. Preparation final project documents and developing knowledge sharing strategies.

Director and Team Leader for Master Plan Development – Rural Water and Sanitation Project, Haiti (funded by Inter-American Development Bank). Managerial and financial oversight of a water and sanitation inventory including development of feasibility studies and tenders for small town water and sanitation systems. Lead role in the development of sector Master Plans for 15 year horizon in Department d'Artibonite, including development needs and priorities.

Hydrogeological Expert – Northern Regions Small Towns Project (NORST), Ghana. Water supply expert for this CIDA-funded project aiming to provide potable water for over 30 small towns in northern Ghana. Responsible for data review and development and oversight of the exploratory drilling program, contract management and water supply advisory inputs for sustainability. Design and implementation of hydrogeological assessments for sustainable large-volume groundwater sources, Coordination of groundwater information and liaison with sector knowledge bases and prepared inputs for design of groundwater based water supply systems. Support to technical and institutional capacity development of community-based management entities including coaching and mentoring of local counterpart staff during construction contract tendering process.

SNC Lavalin Inc.

Team Leader: CIDA-funded Hydrogeological Assessment Project (HAP)

2005–2010

Responsible for the technical oversight and implementation of all aspects of the multidisciplinary study including coordination of specialist advisors in IWRM, geo-database development training, geophysical and geochemical investigations, water quality laboratory strengthening, institutional support for sustainable resource management and trans-boundary aquifers/water rights issues.

Developed and managed field programs and pilot projects resulting in the construction of groundwater monitoring infrastructure and in the field testing of new investigative methodologies.

Facilitated a half dozen major conference/workshops to share project knowledge among key stakeholders in Ghana and abroad, including leading formal training and capacity strengthening components in field protocols and quality control of data collection and management.

Designed and completed comprehensive needs assessment of local counterpart technical staff in water resources management and prepared training plan for integration into national sector strategy.

Identified technical capacity needs of national water sector institutions in hydrogeology and formulated and coordinated training and capacity strengthening plans that emphasized on-the-job training through participation in project activities, and coaching and mentoring through partnering of counterpart staff with project team.

Prepared technical specifications and bid documents for hydrogeological investigations including the use of state-of-the art survey methodologies and iterative approaches; and for engineering works comprising deep boreholes and geo-logging components as part of monitoring infrastructure enhancement and rehabilitation.

Completed formal capacity building in construction contract management and procurement for national and local counterpart staff including skill building in tendering and evaluation processes, and development of terms of reference and bidding document preparation.

Undertook non-technical capacity building interventions targeting the development of a framework for sustainable monitoring of groundwater monitoring infrastructure and training programs for community-level stakeholders, and integration of IWRM principles into groundwater management strategy using sector-wide approaches.

Enhanced communication and networking strategies among national stakeholders in the water sector through development and facilitation of technical and non-technical forums.

Led the process of integrating the project data into a regional trans-boundary watershed authority geo-portal through the strengthening of capacities in GIS geo-database management.

Care Canada

Program Manager

2005

Responsible for management and oversight of CIDA-funded projects in the Asia sub-region, including compliance with donor requirements on project reporting, financial analyses and results-based management. Projects included climate change adaptation, food security, and including the SWASH project, as of 2005, the single largest CIDA-funded project in the WATSAN sector (Sulawesi, Indonesia).

In addition, was responsible for leading the corporate HQ through the systemization of their project and program management procedures and protocols and was one of the senior WATSAN resources across Care Canada and the CARE Federation.

Care Canada

Assistant Country Director (Programs) Emergency Program for Sudanese Refugees in Eastern Chad

2004

Responsible for management, coordination and delivery of firms program portfolio. Identified and developed projects through contribution to donors and aid community sector-wide approach strategy and prepared several WATSAN projects for international donors, both for refugee population and host communities in line with national strategies. Contributed to development of a coordination framework between UNCHR water and sanitation programs and National Water Directorate

Responsible for direct supervision of dozens of expatriate sector leaders in Environment, Health and Hygiene, Education and Natural Resources Management. Identified and developed project potentials through liaison with donors and aid community at large during the Sudanese refugee crises in eastern Chad.

Maintained a dual role as WATSAN specialist and rural water supply engineer through the identification, design and implementation of water supply and sanitation projects for 8 large (15,000+ persons) refugee camps. Designed O&M plans for, and directly managed operation and maintenance team responsible for several large water supply systems supplying over 150,000 persons in extremely difficult logistical conditions.

Wardrop Engineering Inc.

Project Manager Manitoba Floodway Expansion Study

2003

The aim of this multi-year study was to quantify the impacts on groundwater levels and water quality from a proposed expansion of a flood control structure for a city of 700,000. The study includes a field program of dozens of well installations and instrumentation, a detailed well inventory of over 6,000 domestic and municipal wells, and a detailed predictive groundwater model to assess various construction scenario impacts on local groundwater users. Facilitated open house forums for public consultation and feedback.

Wardrop Engineering Inc.

Project Engineer Nigeria Mapping Project

2003

Under a Federal initiative to complete the hydrogeological and hydrological mapping of the entire country, a pre-project initiative was implemented to collect and collate available data from all available sources. Coordinated the collection of available hydrogeological, hydrological and climate data for Hydrological Area 8 (Lake Chad). All collected data was verified for entry into Microsoft Access database, and ground-truthing exercises were carried out at strategic locations. In addition, recommendations were made regarding standardizing the Ministry's data collection formats and supplementary data requirements.

Wardrop Engineering Inc. – Subsurface Testing TCPL

Project Manager and Environmental Engineer

2001–2002

Designed and managed the intrusive sampling campaign at 55 compressor stations Canada-wide for Trans-Canada Pipelines Ltd. comprising field teams of environmental specialists and design and implementation of remediation action programs.

Wardrop Engineering Inc. - Aquifer Sensitivity Study

Project Manager

2002

This multi-year project aimed to develop a management tool for controlling land development in south Winnipeg, a peri-urban area which obtains potable water through individual wells rather than from the City's municipal system. A nearby freshwater-saline boundary was assessed and a municipal planning scheme was tailored to ensure future residential/commercial development incorporated groundwater withdrawal limitations.

Wardrop Engineering Inc. – Manitoba Aquifer Study

Project Manager

2002

This project involved the development of a GIS-based management tool for the decision-making process relating to the approval of agro-business development in the Province of Manitoba. Extensive review and data manipulation was undertaken of existing sources to develop criteria for delineating areas of potential susceptibility of ground water sources to pollution. Participated in the first provincial groundwater sensitivity assessment model for licensing of water abstractions and other permits.

Wardrop Engineering Inc. – EA for AECL Decommission

Project Hydrogeological Engineer

2002

Developed the hydrogeological aspects of the scoping study, review of project alternatives, and assessment of project activities based on local and regional hydrogeological setting. Determination of environmental effects, significance of effects, mitigation, valued ecosystem and social components, and an assessment of cumulative effects.

Wardrop Engineering Inc. - CIDA-funded Northern Regions Water and Sanitation Project (NORWASP)

Water Advisor

1999–2001 / 2002–2003

The aim of this project is to design and implement a sustainable water supply system and sanitation facilities to serve a primarily rural population of 250,000 persons in seven northern districts of Ghana. Primary roles were in the planning and development of the water supply improvements component of the project and the co-ordination of field reconnaissance programs in the target regions. Took the lead role in the evaluation of bids, and provided advisory input into the development of community participation strategies for technical activities such as village level pump mechanic training.

Involvement also included the development of strategies and programmes to facilitate the implementation and monitoring of rural water supply projects by district level staff. Took a lead role in the development and implementation of the latrines artisans training program.

Wardrop Engineering Inc. - DANIDA Water Sector Reform Study

Water Planning Advisor

1999

The aim of this project was to provide an indication of the investment stream requirements to facilitate the central government's mandate to provide potable water supplies to 100% of the rural population by the year 2015. Input included an analysis of the rural population-driven water demand requirements to the year 2015, the assembly of costing data and the analysis of rural water scheme rehabilitation requirements based on condition assessments and the determination of new source allocation to satisfy rural water demand.

Wardrop Engineering Inc. - World Bank (IBRD)-funded Eritrean Community Development Project (ECDF)

Team Leader

1998–1999

This project involved the implementation of small-scale water supply schemes for 35 growth centres in rural Eritrea in wartime conditions. This involved the design and implementation of borehole siting programmes, review and approval of borehole siting reports, design and supervision of the borehole construction programme, and testing of completed boreholes. Co-ordinated the selection, installation and testing of diesel and electric-powered pumps, and implemented programs for training of local staff in aspects of ground water development.

Designed and supervised the training programmes for village caretakers in the proper maintenance of hand-operated and mechanised pumps.

Wardrop Engineering Inc. - EA of Port of Churchill Wharf

Project Environmental Engineer

1999

This project involved a Comprehensive Study environmental assessment (under the Canadian Environmental Assessment Act or CEAA) of the proposed wharf repair and dredging operations, and the design of mitigation plans to protect sensitive species. Designed the sediment sampling, transport modelling and ocean current modelling, in order to obtain an Ocean Disposal Permit from Environment Canada and approvals from the Department of Fisheries and Oceans

Wardrop Engineering Inc. - IFAD KSACDP

Team Leader

1996–1997

The aim of this project was to supply remote villages with potable water from 240 boreholes equipped with hand pumps. Responsible for the co-ordination and supervision of all consultant activities on-site and to ensure contracts for the borehole construction program were implemented in accordance with their terms and conditions. Co-ordinated the community liaison aspects of the project including the establishment of Water User Associations.

Wardrop Engineering Inc. - Alternative Water Supply

Hydrogeological Engineer

1996

Assisted in the review of available data regarding the hydrogeological conditions of an alluvial aquifer to supplement the domestic water supply for a city of 50,000 persons. Responsible for coordination and supervision of test drilling, formation sampling, monitoring well design and installation, and the design of production wells. Developed a computer model of the aquifer to ensure a sustainable pumping scheme, and compiled the final report.

Wardrop Engineering Inc. - World Bank funded Pamatawan Groundwater Study

Project Engineer

1995–1996

Investigated an alluvial aquifer as a potential supplementary source of domestic water for the Subic Bay Freeport area, including Olongapo City, a combined population of over 250,000 persons. Responsible for the review of existing information regarding the floodplain including historical database searches, air photo and remote sensing data interpretation, and the evaluation of potential geophysical techniques including resistivity surveys. While assisting in the production of the tender documents for the geophysical and test well drilling program, was responsible for the bid evaluation and final selection of contractors.

Responsibilities also included the co-ordination and supervision of a resistivity survey and test well program; obtaining the required permits and licenses relating to water rights issues; liaisons with regulatory agencies; coordinating public meetings related to the project; and design of a well survey of the area.

Wardrop Engineering Inc. - Sandilands Aquifer Study

Hydrogeological Engineer

1993–1995

Undertook an investigation of an overburden aquifer as a potential supplementary source of domestic water for a city of 650,000 persons as part of a regional water supply study. Responsible for the co-ordination and supervision of geophysical borehole siting, exploratory drilling and well installation program, including the design and supervision of pumping tests. Additional duties included field data interpretation, aquifer parameter analyses, computer modelling, and conceptual well field design.

Wardrop Engineering Inc. - Variour Environmental Projects

Project Environment al Engineer

1999

Project Engineer – Phase I-III Environmental Site Assessments (1992-2004)

Identified potential environmental liabilities, development of intrusive investigation plans including shallow soil vapour surveys, borehole drilling, and soil and groundwater sampling for laboratory analyses and designed and implemented Remediation Action Plans (RAPs) for over 100 industrial and commercial sites throughout Canada with project value ranges of \$5,000 to \$500,000.

Project Hydrogeological Engineer - Ground water investigations related to chemical & petroleum product spills throughout Canada (1992-2004)

As the contaminant Hydrogeologist for over 30 such projects, duties included detailed investigations of the local ground water flow regime and hydrogeology, followed by exploratory borehole siting and monitoring well design and installation and implemented the use of computer models to simulate contaminant plume migration, and designed aquifer restoration systems including pump and treat technologies

Project Manager - Peer Review of Environmental Assessments (1992-2004)

As a senior hydrogeological and environmental engineer, undertook dozens of peer reviews of 3rd party environmental investigations on behalf of law firms, banks and real estate agencies representing potential buyers of impacted properties, as well as reviews of internal documents generated by company offices nationwide. Evaluated the level of effort of the field investigations, the conclusions and recommendations, cost estimates and overall viability of the document and for compliance with applicable regulatory requirements as regards soil and ground water sampling techniques, laboratory analyses methodologies, and acceptable limits of contaminant constituents.

REPORTS, PUBLICATIONS, CONFERENCE PAPERS:

- Racicot, J.R., Carrier, Marc-Andre, et al., Hydrogeological Assessment of Northern Ghana, 8th Annual Joint CGS-IAH Congress, Ottawa – 2007
- Racicot, J.R. Natural and Artificial Influences on Saline Intrusion in a Palaeozoic Carbonate Aquifer – A Review of Work in Progress. Joint CGS-IAH Conference, Winnipeg, 2003.
- Wolowich, E.A., Racicot, J.R. et al. Large-scale Groundwater Supply Investigations in a Glacial Aquifer – Sandilands, Manitoba. Joint CGS-IAH Conference, Winnipeg, 2003.
- Wolowich, E.A., Racicot, J.R., et al. Hydrogeological Assessment of Low Level Radioactive Waste Management Area at Atomic Energy of Canada's Whiteshell Laboratories. Presented at the International Science and Technology Centre, Ukraine, October 2002.