



Curriculum Vitae: Jaco Snyman

PERSONAL DETAILS

BORN	1973
POSITION IN FIRM	Senior Engineer
NATIONALITY	South African
LANGUAGES	Afrikaans, English

EDUCATION AND PROFESSIONAL STATUS

- BEng (Civil), University of Pretoria 1997
- MEng (Project Management), University of Pretoria 2006

PROPOSED ROLE IN PROJECT

Project management and design inputs

KEY QUALIFICATIONS

Jaco has worked in the water supply, mining and consulting fields and has extensive experience in the design, installation and commissioning of pipelines and pumping systems. Jaco joined P&C at the beginning of February 2008. Key areas of expertise include the following:

- Design of water supply systems
- High pressure slurry pipeline system design
- Design of slurry pumping control systems and interfacing with control systems

RELEVANT EXPERIENCE SUMMARY

South Deep Gold Mine, Gauteng South Africa

Responsible for the project management of a detailed design (Class 3 level of accuracy) of a new 50 year tailings storage facility, thickener plant, two tailings pump stations and pipelines, neutralisation plant and return water system. Responsible for the mechanical design of the tailings pump stations and pipelines.

Nkomati Mine, Mpumalanga South Africa

Responsible for the feasibility design and cost estimate of the Onverwacht site water management components, 14 km long, high pressure return water pipeline and pump station and the tailings distribution system.

Finsch Diamond Mine, Northern Province South Africa

Responsible for the feasibility design and costing (Class 2 level of accuracy) of the fines residue transportation and return water systems. Discipline leader for the detailed design (Class 3 level of accuracy) of the fines residue transportation system, return water system and associated electrical, control and instrumentation system. The detailed design included the preparation of construction drawings and involvement during the tender phase.

Involvement during the construction phase of the project included off site QA/QC inspections, pump performance testing and on site commissioning and pressure testing of the pipelines.

Skouries Gold Mine, Greece

Appointed by Golder Associates (UK) to conduct a feasibility design and cost estimate of a thickened tailings / paste transportation system for Skouries Gold Mine.

A gravity feed (launder) system was considered as part of the study to transport thickened tailings to the valley impoundment facility. The density requirements to achieve proper beaching angles and the non Newtonian properties of the fluid at the required density necessitated the design of a high pressure pipeline and pumping system.

Moatize Coal Mine, Mozambique

Discipline leader for the waste management component of a bankable feasibility study. During the study various tailings disposal options were investigated. The feasibility design for the selected tailings deposit, included a stage capacity analysis, site water management system, penstock decant system, preliminary drain design, deposition stations, return water dam as well as the tailings transportation system. The study included a formal tender to underpin the feasibility level of accuracy.

Galmoy Mine, Ireland

On site design support services at Galmoy Mine. Responsibilities included design of piping and valving, pump duty requirements and pump selection and process control of the transportation system to and from a new agitated storage tank.

Buzwagi Gold Mine, Tanzania

Assist with hydraulic design components of a trade-off study (Class 0/ Class 1 level of accuracy) for various tailings disposal options with included thickened tailings and paste technology as well as the site water management components.

Sadiola Gold Mine, Mali

Assist with the hydraulic design components of a trade-off study (Class 0 / Class 1 level of accuracy) for various tailings disposal options with included thickened tailings and paste technology.

Foskor Mine, Mpumalanga South Africa

Project manager for a feasibility study (25% level of accuracy) for a gypsum tailings disposal facility.

Paste Research in UK and Europe

Visited Golder UK office and did paste research and design work in Finland, Portugal and Ireland which included design of a pipe flow loop, on site flow loop testing, preparation and testing of cement stabilised samples to determine strength gain over time for the application of underground backfill, assisted with a pre-feasibility study for an underground paste backfill plant and a feasibility study to upgrade and extend the existing underground backfill plant at Galmoy Mine.

Vanchem, Mpumalanga South Africa

Responsible for the detailed design of the slimes and return water pump stations and pipelines. Responsible for the hydraulic design, detailing of the pipelines including all road crossings, air valve and scour valve chambers, surge analyses for all the pipelines, on and off site QA/QC inspections, commissioning and pressure testing of the pipelines.

Berg Water Project, Western Cape South Africa

The Berg River Consultants (BRC) was appointed by TCTA to design and supervise the construction of the Berg River Dam and Supplement Scheme on the Berg River near Franschhoek. The Supplement Scheme comprised, amongst other components, two pipelines identified as the Drakenstein pipeline and the Dasbos pipeline.

The author was seconded to BRC since March 2003 and formed part of the design team for the Supplement Scheme.

Luvuvhu River Government Water Supply Scheme, Northern Province South Africa

Detailed design and preparation of construction drawings of the following project components:

- Xikundu reservoir NR 3 – 5 MI storage capacity
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- Xikundu WTP to reservoir NR3 rising main
- Xikundu WTP to reservoir NR4 rising main
- Xikundu reservoir NR3 to Malamulele East gravity pipeline

Vondo Regional Water Supply Scheme, Northern Province South Africa

Design and detailing of a 4,5 km long, 400 mm NB GRP gravity main from the Vondo Dam to the Phiphidi Water Treatment Plant

PUBLICATIONS

Marais, F.J., Snyman B.J., Lötter, P.F., Newman P.D. and Wates J.A. 'Overview of the Methodology Employed During the Feasibility and Trade-off Studies and Optimum Disposal Strategy.' Paste 2005 Symposium, Santiago, Chile. 2005.

Addis, P.C., Snyman B.J. and Marais F.J. 'Vanchem: A new lined residue disposal facility.' Wastecon 2006, Durban, South Africa, 2006.

Snyman J., Theron M. 'The latest trends in Paste Technology – An Overview' SAICE Civil Engineering, August 2006, Vol 14 No 8.

Snyman, B. J. & Brent, A. C. 'Aligning Environmental and Regulatory Procedures with a Holistic Project Management Approach for Residue Deposits.' Colloquium of the South African Institute of Mining and Metallurgy (SAIMM), The South African National Museum of Military History, Saxonwold, 2006.

Snyman, B. J. 'Aligning Environmental and Regulatory Procedures with a Holistic Project Management Approach for Residue Deposits.' Final year symposium: Department of Engineering and Technology Management, University of Pretoria (UP), Pretoria, 2006.