

Year	Project Name	Project Description
2022	Lisbon Eco Estate	Phase 1 Township Development for a multi-purpose estate to be constructed across a ~1 000 Ha region.
	Ebenezer Bulk Water Pipeline Ebenezer WTW to Rustfontein Reservoir & Chamber GB73 to Mankweng Reservoir	Engineering Geological Investigation for the proposed new bulk water pipeline to be constructed alongside the existing pipeline.
	Olifantspoort Bulk Water Pipeline Olifantspoort WTW to Palmietfontein Reservoir	Engineering Geological Investigation for the proposed new bulk water pipeline to be constructed alongside the existing pipeline.
	Burgersfort Extension 54 and Extension 58	Phase 1 Township Development for the establishment of new residential extensions within Burgersfort.
2021	Olifantspoort Off-Channel Storage Dam	Design Phase Engineering Geological Investigation for the construction of a new off-channel storage dam for the Olifantspoort Water Treatment Works.
	New IBL Tank – SAPPI Ngodwana	Engineering Geological Investigation for the proposed new IBL tank to replace existing tanks.
	Ngodwana and Inkwazi District Borrow Pits	Initial Materials Investigation aimed at assessing a cumulative 36 existing borrow areas for potential extension and mining of suitable aggregate for use as gravel wearing course in roads.
	Upgrades to the Ngodwana Dam	Assisting the geotechnical specialist in the geotechnical investigation for the proposed upgrades to the Ngodwana Dam.
	Stella Waste Water Treatment Facility and Pump Station	Engineering Geological Investigation for the proposed new WWTW and pump station in Stella; North West Province.
2020	New Pollution Control Dam	Feasibility Phase Investigation in order to assess the general geotechnical conditions across the proposed area, as well as source potential materials to be utilised in the development.
	Graspan Reservoir Complex	New 15 ML Ground Concrete Reservoir and a new 1ML Elevated Water Tower
	Spaarwater Cemetery	Proposed extension of the Nigel cemetery into the Spaarwater Area. The investigation was aimed at zoning and classifying the site in accordance with its' suitability for use as a cemetery (Hall and Hanbury classification system)
	Circular Chip Pile Reclaimer SAPPI Ngodwana	The assessment of the geotechnical conditions at depth for an existing reclaimer that requires alterations.
	Marapong 8 ML Concrete Reservoir Forensic Investigation	Detailed forensic investigation conducted in order to assess an existing concrete reservoir that had been inoperative due to excessive leakage. The investigation incorporated a geotechnical assessment of the natural conditions, as well as a basic structural assessment to determine the state of the structure.

<b>2019</b>	Seshego Sewer Outfall, Pump Station and Rising Mine	Engineering Geological Investigation for the proposed new pipeline and pump station near the Seshego Water Treatment Works
	Polokwane, Mankweng and Seshego Wastewater Treatment Works	Engineering Geological Investigations for the proposed additions to the existing wastewater treatment facilities.
	Nkomati Mine Conveyor Trestle Support Plinth	Engineering Geological Investigation to determine the geotechnical conditions below an existing conveyor trestle plinth to assess potential reasons for deflection and potential mitigation measures.
	NHBRC Enrolments for Residential Structures	Engineering Geological Investigation and NHBRC enrolment of various stands in The Rest Nature Estate, Ndlovumzi Estate, Mjejane Private Game Reserve, Highlands Gate Golf Estate, Pamushana Estate, etc.
<b>2018</b>	Doubling of Barry Marais Street	Engineering Geological and Dolomite Stability Investigation as part of the proposed doubling of the Barry Marais Road (M43) and 4 Bridge Structures.
	Little Fish and Beenleegte Small Embedded Hydro Projects	Engineering Geological Investigation to assess the geotechnical conditions along the proposed routes for the two run-of-river hydroelectric facilities
	Hydrogeological Investigation - Capricorn District	Hydrogeological Investigation required for the siting, drilling and testing of new boreholes as well as testing of existing boreholes within various villages within the Capricorn District
	Polokwane - Multi Land Use Development - Portion 1 to Portion 4	Engineering Geological Investigation for the proposed multi land use developments across Polokwane
<b>2017</b>	ASIDI IV- iMvula Trust Limpopo Schools	Engineering Geological Investigation for the installation of ablution facilities at 55 different schools across Limpopo
	Phase 1 Township Developments for Mookgopong (Ext 1, Ext 2, Ext 3, Ext 5 & Ext 8), Bela-Bela Ext 9 and Marapong Ext 6	Engineering Geological Investigation to assist with the proposed township developments
	Malonga Bulk Water Reticulation Network	Engineering Geological and Materials Investigation for the proposed new Pipeline network and Reservoir Structures
	Mpumalanga International Fresh Produce Market R37 Intersection and Culverts	Engineering Geological Investigation for the sites' services (roadways and pipelines) as well as the proposed Butterfly Junction on the R37
	Olifanstpoort Bulk Water Scheme Off-channel Storage and Weir	Engineering Geological Investigation for the off-channel storage dam and upgrading of the weir and its' associated infrastructure.
	SAPPI Ngodwana Dolomite Stability Investigation	Dolomite Stability Investigation for the addition of various structures to the SAPPI Ngodwana Plant.
	Lebalelo South Bulk Water Scheme	Pipeline and Materials Investigation with associated Reservoirs and Water Treatment Facilities
	ANE Mozambique Road	Centerline and Materials Investigation for the upgrading of the existing Chissano to Chibuto damaged road
<b>2016</b>	Calcutta Bridge	Engineering Geological Investigation for the construction of a bridge structure spanning across a known water course (traitorous alluvial depositional system)
	Polokwane AC Pipeline Replacement	Pipeline and Materials Investigation for the proposed new pipelines within Seshego, Polokwane CBD and Annandale
	RDP Housing Development Phagameng Ext 36- Modimolle	Engineering Geological Investigation to assist with the proposed township development within Phagameng Ext. 36
	Upgrading of the R702; R26; and R709	Centerline and Materials Investigation for the upgrading of the existing Regional Roads within the Free State Province
<b>2015</b>	Kriel FFP Refurbishment Project	Engineering Geological Investigation for the construction of Fabric Filter Plant structures at the Kriel Power Station
	Geo-environmental Investigation- Aloe Falls Country Estate	Geo-environmental Investigation for the construction of a golf course development and associated infrastructure
	Wolwas Hydro Power Plant- Free State Province	Greenfield site suitability investigation for the proposed Hydro Power Scheme
<b>2014</b>	240 Ha Solar Farm Development (Zimbabwe)	Engineering Geological Investigation for the construction of a large scale solar farm development

2014

Geo-Environmental Investigation- Tailings  
Dam Structure- TSB

Geo-environmental Investigation for the construction of a new tailings dam  
structure for TSB

## Investigative Methods

Test pitting and laboratory testing (disturbed and undisturbed) according to industry standards (GFSH-2)

Test pitting at regular intervals along the route (SAICE), sampling and testing for the re-use suitability analysis.

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Test pitting and laboratory testing (disturbed and undisturbed) according to industry standards (GFSH-2)

Rotary core drilling with detailed core logging, in-situ testing (packer and grout acceptance testing), geophysical surveys, test pitting for shallow foundations and material sourcing (heavy mechanical excavator), and laboratory testing (soil & rock samples).

Rotary core drilling with detailed core logging, in-situ testing (SPT) and laboratory testing (rock core samples)

Detailed site walkovers with detailed mapping photography and logging of existing exposures, including laboratory testing of available materials

Rotary core drilling with detailed core logging and in-situ testing (SPT)

Testing pitting (heavy mechanical excavator) and laboratory testing (disturbed and undisturbed)

Test pitting (TLB and 20 ton excavator) and laboratory testing (disturbed and undisturbed) to assess the geotechnical conditions.

Test pitting and laboratory testing (disturbed and undisturbed) to assess the shallow material conditions.

Rotary core drilling with detailed core logging, in-situ testing (SPT) and laboratory testing (undisturbed and rock samples) to assess the deep material conditions.

Test pitting, percolation testing laboratory testing (disturbed and undisturbed)

Rotary core drilling with detailed core logging, in-situ testing (SPT) and laboratory testing (undisturbed and rock samples).

Test pitting and laboratory testing (disturbed and undisturbed) to assess the geotechnical conditions.

Coring of the concrete, in-situ testing as well laboratory testing of concrete cores to assess the various structural elements

Geophysical survey, test pitting with laboratory testing (soil and rock samples).
Test pitting and laboratory testing (disturbed and undisturbed samples)
Rotary core drilling with detailed core logging, in-situ testing (SPT) and laboratory testing (rock core samples)
Test pitting and laboratory testing (disturbed and undisturbed) according to industry standards (GFSH-2)
Geophysical methods (Dolomite), rotary core drilling, percussion drilling, rock chip logging, and core logging
Geophysical methods, test pitting, joint line surveys, rock sampling (mechanical and XRD/XRF analysis), concrete aggregate testing
Percussion drilling, yield testing and water quality analysis
Test pitting and sampling (disturbed and undisturbed) according to industry standards (GFSH-2)
Test pitting, in-situ testing (percolation test and DCP tests) and sampling (disturbed and undisturbed)
Test pitting and sampling (disturbed and undisturbed) in accordance with industry accepted standards (GFSH-2)
Test pitting and sampling (disturbed and undisturbed)
Test pitting and in-situ testing (undisturbed samples and DCP testing); including borrow pit exploration
Geophysical methods, rotary core drilling, test pitting and in-situ testing (lugeon testing)
Percussion drilling and rock chip logging
Test pitting and sampling (disturbed and undisturbed)
Site walkover, technical consultants, test pitting and sampling (including borrow pit exploration)
Rotary core drilling with in-situ testing (SPT) and test pitting; including borrow pit exploration
Site walkover, test pitting and sampling (disturbed samples)
Test pitting and laboratory testing (disturbed and undisturbed samples)
Test pitting and DCP-tests Detailed Reports
Geophysical testing, rotary core drilling, test pitting and in-situ testing (DMT and DPSH)
Complete geo-environmental investigation including test pitting, in-situ testing and water sampling (surface and sub-surface)
Detailed desktop study, site walk over with joint mapping and rock sampling (XRF and XRD analysis).
Test pitting and in-situ testing (undisturbed samples and DPL testing)

Complete geo-environmental investigation including test pitting, in-situ percolation testing and borehole sampling